

3M Electrical Products



PHONE 800-245-3573

FAX 800-245-0329

You're in a demanding industry. To be successful, you need a wide range of reliable products designed to effectively manage your daily processes. You need a supplier with a solid understanding of your industry and the technology that drives it. Quite simply, you need 3M. The Electrical Markets Division designs and manufactures a comprehensive line of products that can address your diverse applications. Widely recognized for our innovation, quality, reliability and global corporate strength, 3M has the products and services you need and the name you trust.

In your business, power, technology and reliability are essential. 3M delivers that and more. We have the power of a diversified, global manufacturer with more than 60,000 products in our line; a reputation for technical excellence and innovation; and employees committed to delivering quality products and service to you, our valued customer.

This total quality management philosophy is evident in all our manufacturing facilities located in countries throughout the world. We are committed to achieving registration of these 3M manufacturing locations under the ISO 9002 quality system standard; one more reason 3M products will continue to provide in-place, reliable performance over time.

Our commitment and capability doesn't stop with electrical products, it starts there. To explore the many ways we can serve you, contact your local 3M representative today.

The 3M logo, consisting of the letters '3M' in a bold, sans-serif font.

We Understand the Value of Your Time.

This catalog is designed to make it easier for you to find the products you're looking for. The following diagrams point out how the design can help you find the right product faster than ever.

2 Product specifications

6 Packaging, minimum order, and UPC code

3 Product subsection

1 Phone number to place an order

5 Related products

4 Product features, advantages and benefits

3M TAPES • Vinyl Electrical Tapes

Scotch® Vinyl Insulation Tape 22

Scotch Vinyl Insulation Tape 22 is one of 3M's thickest (10-mil) vinyl electrical tapes. It is designed for insulation applications that require greater mechanical strength and abrasion resistance. Scotch 22 seals in all kinds of weather and provides moisture-tight electrical and mechanical protection with fewer wraps than thinner tapes.

Scotch® Vinyl Electrical Tape 66R

Conformable 10-mil thick Scotch Vinyl Tape 66R is designed to perform in a continuous temperature environment up to 220°F (105°C). It has excellent resistance to abrasion, moisture and varying weather conditions (including ultraviolet exposure). Scotch 66R, with its combination of elastic PVC backing and rubber adhesive, provides moisture-tight electrical and mechanical protection.

3M Electrical Tapes Training Kit

In this kit you will find supplies for the following applications:

- Insulating & wrapping a split bolt
- Insulating & wrapping a motorlead connection
- Insulating & wrapping an inline splice
- Insulating & wrapping a bus bar

ORDERING INFORMATION FOR VINYL ELECTRICAL TAPES

Product Number	Description	Size	Minimum Order Qty.	UPC
22	Scotch® Heavy-Duty Vinyl Electrical Tape 22, Black	102" x 36 yd (33.9 m)	N/A	48 rolls
22	22	50" x 36 yd (28.9 m)	15ea 10ctn	48 rolls
22	22	1" x 36 yd (27.4 m)	N/A	48 rolls
22	22	1-1/2" x 36 yd (28.9 m)	N/A	12 rolls
22	22	2" x 36 yd (33.9 m)	N/A	12 rolls

PRODUCT REFERRAL GENERATOR

Packaging: 06 14
 Minimum Order: 06 14
 Shipping: 06 311
 Corrosion: 06 147

PHONE 800-245-3573

PREMIUM VINYL ELECTRICAL TAPES

FEATURES	ADVANTAGES	BENEFITS
All-weather tape design	Best adhesion and handling in all weather conditions	Makes job easier and eliminates re-do
Resists weather, UV resistance, abrasion, and corrosion	Long lasting	Lower maintenance cost
Far exceeds minimum agency requirements	Highest quality in product category	Provides peace of mind

Holds strong under extreme weather conditions.

FAX 800-245-0329

7 Pack-together kits

8 Tips and information

Specification and Ordering Information for 3M Thin-Wall Tubing FP-301 Assortment Kits

Description	UPC (851135-)	Quantity
ASSORTED COLORS KIT	37677	5 kits
Kit Contents:		
3/32" (2.35 mm)	25	-
1/8" (3.18 mm)	28	-
3/16" (4.75 mm)	21	-
1/4" (6.35 mm)	21	-
5/16" (8.53 mm)	14	-
1/2" (12.70 mm)	14	-
ASSORTED BLACK KIT	38139	5 kits
Kit Contents:		
Kit Quantity:		

FREQUENTLY ASKED QUESTIONS

What does the insulation grip do? The insulation grip provides a "second" crimp on the wire insulation providing additional wire strain relief. It's essential for high vibration applications.

Which 3M tools can I use with 3M terminals? The handy reference guide on pages 135-136 gives you a variety of choices of tools to use with 3M terminals.

What's the difference between insulated and fully insulated disconnects? Insulated disconnects have barrel insulation only and fully insulated disconnects are insulated from the barrel to the receptacle.

What temperatures do 3M terminals withstand? Non-insulated 3M terminals withstand temperatures up to 347°F (175°C). Insulated 3M terminals withstand temperatures up to 221°F (105°C).

FAX 800-245-0329

1

Numbers to Call for Product Information

Phone and fax numbers are printed at the bottom of the page to make ordering easier. To make sure you get the right product for the right job, or for more information about a particular item in the catalog, 3M has set up the following phone numbers:

- For technical information, call: 512-984-5000 or 512-984-5555.
- To leave a message for a 3M sales representative (when you know the 7-digit phone number), call: 1-800-545-3573.
- To request a Material Safety Data Sheet (MSDS), call: 651-737-7222 or 1-800-364-3577. (refer to the 3M price sheets for specific products on which MSDSs are available).
- For information on 3M products not listed in this catalog, call: 1-800-3M HELPS (364-3577).

3M may also be located on-line at www.3M.com. MSDSs are also available on-line at www.3M.com/US/MSDS/msdsSearch.jhtml.

2

Product Specifications

Included in this easy-to-read section are product descriptions, specifications, applications and other useful information to help you better understand the product before ordering.

3

Product Subsection

These different colored headings/tabs along the edge of the page make locating specific sections easier and help you identify from which section you are currently ordering.

4

Features and Benefits

Each section includes a quick-reference chart to help explain the features, advantages and benefits of each product at a glance.

5

Product Referral Generator

With 3M's full line of electrical supplies, this section has been added to help you find related products easier. The included information is your link to accessories, tools, or other related products that may be useful.

6

UPC Codes, Packaging, Minimum Order

The Ordering Information charts provide a clear reference for UPC codes, minimum order information, and packaging information on related products in a clear format that makes ordering and gathering information easy.

7

Pack-Together Kits

3M offers the convenience of packing products that are used together. Lugs, mounting brackets and parallel clamps may be ordered packed with a termination kit. Connectors may be ordered packed with splice kits. There is special handling involved in pack-together orders and it may take longer to process than ordering separately.

8

Tips and Information

It's important for you to get the right product right for the job. That's why 3M has introduced special features to help you learn more about the products offered. Look to these special sections for information about the product, about using the product correctly, and about ordering the best 3M product for your specific task.

Table of Contents

TAPES	1	Kits	142
Glossary of Taping Terms	3	Tools	143
Vinyl Electrical Tapes	4	3M Terminal Stud Size Chart	146
Insulating and Splicing Tapes	9	American Wire Gauge	146
Sealing and Insulating Mastic Tapes	14	LUGS AND CONNECTORS	147
Corrosion Protection Tapes	17	Copper Connectors	149
Mining Tapes and Kits	19	Copper/Aluminum Connectors	151
Special Use Tapes	21	Copper Lugs	152
Packaging and Palletizing Tapes	27	Copper/Aluminum Lugs	155
WIRE CONNECTORS	31	Oil Seal Lugs	157
Spring Connectors and Tools	32	SC Series Stem Connectors	157
Crimp Sleeve Connectors	37	CP Parallel Clamp	158
Insulation Displacement Connectors and Tools	38	CI Series Connectors	159
Scotchlok Connectors and Tools	42	CI-A Series Connectors	160
Moisture Guard Connector	46	CI-T Series Connectors	160
TERMINALS, KITS AND TOOLS	47	CIR Series Connectors	161
Glossary of Terminals and Tools Terms	48	2000T Series Connectors	162
Ring Tongues	53	FASTENING PRODUCTS	165
Multi-Stud Ring Tongues	78	Cable Ties and Assortment Pack	166
Standard Forks	79	Cable Tie Bases	170
Block Forks	85	Cable Stackers	171
Flanged Block Forks	93	WIRE MARKING AND IDENTIFYING	173
Locking Forks	98	Dispensers	174
Butt Connectors	107	Books	179
Female Disconnects	113	AEROSOLS	183
Male Disconnects	121	Spray Adhesives	184
Flags and Multi-Stack Disconnects	125	Insulating Sprays	186
Adapters	126	Contact Cleaners	186
High Temperature	128	Packaging Adhesives	187
Closed End Connectors	131	3M™ Novec™ Aerosol Cleaners	188
Parallel Connectors	133		
Pin Terminals	134		
3M™ Highland™ Bagged Terminals	135		

LUBRICANTS AND COATINGS	191	MODULAR SPLICING	301
3M™ Lubricants and Cable Looseners	192	Modular Splicing Kits	302
3M™ Coatings and Protectants	196	Cable Adapter Kits	305
FIRE PROTECTION PRODUCTS	197	SPLICES	311
Sealants and Packing Material	198	Glossary of Splicing Terms	313
Pillows and Putty	201	Cable Types for Splicing	314
Pass-Through and Cast-In Devices	203	Low Voltage Splices 0-600V	317
Collars and Wrapstrips	207	Resins	325
Sheets and Mats	209	1 kV to 5/8 kV Splices	330
Miscellaneous	211	15 kV Splices	342
DIAGNOSTIC AND DETECTION PRODUCTS	213	5700A-MT Trifurcating Accessory Kit	355
Infrared Thermometers	214	25/28 kV Splices	356
SAFETY AND PROTECTION PRODUCTS	221	35 kV Splices	365
Personal Safety	222	46 kV Splices	370
Respirators	222	PILC Splices & Accessories	371
Hearing Conservation	227	Connectors	375
Eye Protection	230	MOTOR LEAD CONNECTIONS	377
Face and Head Protection	233	Motor Lead Connections 1 kV	377
Environmental Safety	236	Motor Lead Connections 5 and 8 kV	379
Maintenance Sorbents	238	CABLE ACCESSORY PRODUCTS	383
Petroleum Sorbents	241	Splice Rejacketing	384
Chemical Sorbents	245	Splice Repair	387
3M™ PanelSafe™ Lockout System	251	3M™ Safety Sock Grounding Kits, Shielded and Jacketed URD Cable	388
Barricade Tapes	257	Sealing and Grounding	390
TERMINATIONS	261	3/C Cable Breakout Boots and 3/C Phase Rejacketing System	392
Glossary of Terminations Terms	263	Insulating and Sealing Compounds	405
Cable Types for Terminating	264	Mounting Brackets	407
3M™ Cold Shrink QT-III Silicone Rubber Terminations	265	3M™ Cold Shrink Corrosion Protection Kit CPT Series	408
3M™ Cold Shrink Termination QT-III 69 kV/72,5 kV	270	Preparation and Cleaning	410
3M™ Cold Shrink QT-II Indoor and Outdoor Terminations	283	3M™ Electrostatic Animal Guard	412
Tape Terminations	291	Overhead Conductor Animal Guard Cover	413
LOADBREAK ELBOWS	293	HEAT SHRINKABLE PRODUCTS	415
3M™ 200 Amp 5-15 kV Industrial Loadbreak Elbow	294	Heavy-Wall Tubing	418
3M™ 200 Amp 25 kV Industrial Loadbreak Elbow	296	Medium-Wall Tubing	421
3M™ 200 Amp Industrial Loadbreak Elbow Accessories	297		

Thin-Wall Tubing	423	3M™ Fiber Dome Closure FDC 08 and FDT 08	466
Adhesive-Lined Tubing	435	3M™ Fiber Connectors	469
Bus Bar Tubing	439	3M™ Fiber Optic Termination Kits and Accessories	472
COMMUNICATION PRODUCTS	441	INDEX	475
3M™ Scotchlok™ Connectors and Tools	442		
3M™ MS2™ Splicing System	450		
3M™ SLiC™ Aerial Closures and Terminals	452		
3M™ Better Buried Closures	455		
3M™ Scotchcast™ PIC Encapsulating Closure Kits (Non-Reenterable)	456		
3M™ Scotchlok™ Shield Bonding Products	457		
3M™ Armorcast Sheath Repair Products	458		
3M™ Fibrlok™ Single Fiber Optical Splicing System 2500 Series	459		
3M™ Fiber Optic Splice Closure 2178 Series and Accessories	462		

ISO 9002 Registration of Facilities

The 3M facilities which manufacture the 3M electrical products in this directory have been registered by Underwriters Laboratories, Inc. to the International Standards Organization ISO 9002 quality management system standard. Some non-electrical products may not be registered to ISO 9002.

The ISO is made up of the national standards boards from more than 90 countries. ISO 9002 is the model for quality assurance in production, installation and servicing.

For the customer, registration provides proof of the quality of suppliers' systems. For companies with numerous manufacturing sites, such as 3M, ISO registration provides a consistent and efficient method of standardization.

For information about ISO 9002 registration for 3M products call 512-984-5555 for low-voltage products, 512-984-5000 for medium- and high-voltage products, 512-984-5518 for original equipment manufacturer products and 800-3M-HELPS for non-electrical products.

Terms and Conditions

Terms and conditions of sale, the price protection plan and return goods policy are detailed in our distributor cost price pages.

3M, Cool Flow, FireDam, FireMaster, Highland, Interam, Post-it, Scotch, Scotch-Brite, Super 33+, Scotchcal, Scotchcast, ScotchCode, Scotchfil, Scotchgard, Scotchkote, Scotchlite, Scotchlok, Scotchpro, Scotchrap, Scotchtrak, Shipping-Mate, Tartan and Temflex are trademarks of 3M.

Kynar is a registered trademark of EL7 Atochem North America, Inc.

 and  are trademarks of Underwriter Laboratories.
 is a trademark of the Canadian Standards Association.

NEC is a trademark of the Canadian Standards Association.

UniShield is a registered trademark of BICC Corporation.

Other trademarks used herein are the properties of their respective owners.

Tapes

Glossary of Taping Terms	3
Vinyl Electrical Tapes	4
Insulating and Splicing Tapes	9
Sealing and Insulating Mastic Tapes	14
Corrosion Protection Tapes	17
Mining Tapes and Kits	19
Special Use Tapes	21
Packaging and Palletizing Tapes	27



In the early 1940s, vinyl plastic emerged as a highly versatile material for a wide range of applications, from shower curtains to cable insulation. Research chemists and engineers at 3M set out to create a dependable, pressure-sensitive tape made of vinyl film that would have the required electrical, physical and chemical properties. Finally, in January 1946, inventors Snell, Oace and Eastwood of 3M applied for a patent for a vinyl electrical tape. The first commercially available version of the tape was sold for use as a wire-harness wrapping. Interestingly,

this original black tape wasn't black at all. The first 3M tape sold was yellow, and later versions were white. White tape, because of its instability in ultraviolet light, was eventually replaced with black tape, although colored vinyl tapes are still used as identification and marking tapes. Black became the standard industry color for vinyl tape, primarily because of its ultraviolet resistance. 2006 marked the 60th Anniversary of Scotch® Super 33+™ Vinyl Electrical Tape, and 3M has improved the tape 16 times since its invention.

	Vinyl Tapes	Rubber Tapes	Mastic & Filler Putty Tapes	Varnish Cambric	Arc Proofing Tapes	Silicone Tapes	Glass Cloth Tapes	Mining and Jacket Repair Tapes
Protective jacketing	X				X			X
Electrical insulation	X	X	X		X	X	X	X
Moisture sealing		X	X			X		X
ID and color-coding	X							
Harness and bundling	X							
Mechanical padding		X	X			X		X
Shaping		X	X			X		
Arc proofing					X			
Connection re-entry				X		X		

Taping Tips

Although challenging in its makeup and manufacture, vinyl electrical tape is relatively straightforward in its use. Nevertheless, to ensure the safest, most reliable use, always:

- Apply tape with enough stretch to conform to the objects you're wrapping. Be sure to let the last couple of inches relax before tabbing it down to prevent unwinding (sometimes called "flagging").
- Wrap an irregular mechanical connector, such as a split bolt, with rubber or mastic tape to pad sharp edges, before overwrapping it with vinyl electrical tape.
- Wrap cone-shaped (high voltage splices) "uphill" — that is, from the smallest to the largest point. This way you always secure the previous layer.
- Keep fingers close together when tearing tape. The farther apart they are, the more the tape will stretch before it tears.
- Use the right tape for the right conditions. Vinyl tapes are rated for cold-weather application in two classes: 32°F (0°C) and 0°F (-18°C). Tapes formulated for high-temperature environments are typically rated 176°F (80°C) or 220°F (105°C).

WRAPPING TIPS

TYPE OF TAPE	NUMBER OF LAYERS/APPLICATION INSTRUCTIONS
Vinyl Electrical Tapes — Jacketing and Mechanical Protection	Always use a minimum of two half-lapped layers. The last layer should be wrapped in a more relaxed manner — let the last wrap relax to prevent the layer from flagging.
Rubber Tapes — Electrical Insulation, Mechanical Padding, Water Sealing and Shaping	Wrap tape tightly to achieve the watertight seal. Rubber tapes are typically overwrapped with vinyl tape.
High Voltage Tapes — Insulating and Semi-conductive Layers	Apply outside of roll to the cable, in highly stretched half-lapped layers. Never use a semi-conductive tape as an insulation.
Mastic Compounds — Insulating, Mechanical Padding, Moisture Sealing and Shaping	Mastic compounds are to be overwrapped with vinyl tapes to initiate flow and watertight seal. Do not apply excessive amount of mastic to prevent oozing.

Glossary of Taping Terms

ADHESIVE

The medium that allows the backing to be quickly, positively and efficiently positioned to do its job.

ADHESION TO BACKING

The bond produced by contact between a pressure-sensitive adhesive and the tape backing when one piece of tape is applied to the back of another piece of the same tape.

BACKING

The material that performs the tape's desired functions (insulation, protection, identification, holding).

CONFORMABILITY

The ability of tape to fit snugly or make essentially complete contact with the surface of an irregular object without creasing or folding. Any tape can be applied to any surface, but it may not conform.

DIELECTRIC STRENGTH

The voltage that a tape will withstand without allowing passage of current through it.

ELASTIC MEMORY

A tendency of some tape backings to attempt to return to their original length after being elongated.

ELECTROLYTIC CORROSION FACTOR

A measure of the tape's corrosive effect on a copper conductor. This is particularly important in the selection of tapes for use as electrical insulation.

ELONGATION

The distance a tape will stretch lengthwise before breaking, expressed in a percentage. Elongation is an indication of conformability.

FLAGGING

When the end of a length of tape peels away from the surface after the tape has been applied.

GAPPING

Openings between layers of tape within a roll.

HOLIDAY

A small defect that lowers the dielectric strength at the point of the defect.

MIGRATION

The movement, over a long period of time, of an ingredient from one surface to another when the two are in contact. This may occur between tape components or between a tape and the surface to which it is applied.

OOZING

A "squeezing out" of the adhesive from between the layers of tape so that the sides of the roll are very tacky.

PEAKING

Large "upheavals" in the outer layers of a roll of tape, when several layers bunch and protrude outward. Creates gapping within the roll.

PEEL ADHESION

The force required to pull a strip of tape from a surface at a specified angle and speed. Usually expressed in ounces per inch width.

PRESSURE-SENSITIVE

A term commonly used to designate a category of adhesive tapes that, in dry (solvent-free) form, are aggressively and permanently tacky at room temperature. They also firmly adhere to a variety of dissimilar surfaces upon contact without the need of more than finger or hand pressure. Despite their aggressive tackiness, however, these tapes can be handled with the fingers and removed from smooth surfaces without leaving a residue.

PRIMER

Material applied to the underside of the backing that prevents the adhesive from adhering to both sides of the backing.

TACKY

A lab synonym for "sticky," or highly adhesive. Sometimes used to express the idea of pressure sensitivity.

TELESCOPING

A sliding of the tape layers one over the other until the roll assumes a funnel shape.

THERMOSETTING

Adhesive that sets or hardens on first exposure to heat, and remains set regardless of subsequent temperature cycles.

Vinyl Electrical Tapes

Scotch® Super 33+™ Vinyl Electrical Tape

Scotch Super 33+ Vinyl Electrical Tape is a professional grade, all-weather vinyl electrical insulating tape. Super 33+ is conformable for cold weather application to 0°F (-18°C) and is designed to perform in a continuous temperature environment up to 220°F (105°C). An aggressive adhesive and elastic backing enables Super 33+ to easily conform to irregular surfaces for moisture-tight electrical and mechanical protection. Super 33+ provides flexibility and easy handling for all around performance.



Scotch® 33+ Vinyl Electrical Tape

Scotch® Vinyl Electrical Tape 35

Scotch Vinyl Electrical Color Coding Tape 35 is a premium-grade electrical tape that stretches to conform to virtually any shape that requires color-coded insulation. Scotch 35 is abrasion- and weather-resistant, with excellent mechanical and electrical insulation properties, and wraps smoothly and holds tight over a wide range of temperatures. There are nine stay-fast colors for color-coding applications.



Scotch® Vinyl Electrical Tape 35

Scotch® Vinyl Electrical Tape Super 88

Scotch Vinyl Electrical Tape Super 88 is a 8.5 mil heavy duty, premium grade all-weather vinyl electrical insulating tape. Super 88 maintains conformability for cold weather applications:



- Better mechanical/ abrasion resistance
- Quicker build-up



Scotch® Vinyl Electrical Tape Super 88



Scotch® Vinyl Electrical Tape Super 88

Scotch® Vinyl Insulation Tape 22

Scotch Vinyl Insulation Tape 22 is one of 3M's thickest (10-mil) vinyl electrical tapes.



It is designed for insulation applications that require greater mechanical strength and abrasion resistance. Scotch 22 seals in all kinds of weather and provides moisture-tight electrical and mechanical protection with fewer wraps than thinner tapes.

Scotch® Vinyl Electrical Tape 66R

Conformable 10-mil thick Scotch Vinyl Electrical Tape 66R is designed to perform



in a continuous temperature environment up to 220°F (105°C). It has excellent resistance to abrasion, moisture and varying weather conditions (including ultraviolet exposure). Scotch 66R, with its combination of elastic PVC backing and rubber adhesive, provides moisture-tight electrical and mechanical protection.

3M Electrical Tapes Training Kit

In this kit you will find supplies for the following applications:

- Insulating and wrapping a split bolt
- Insulating and wrapping a motorlead connection
- Insulating and wrapping an inline splice
- Insulating and wrapping a bus bar



Tape Training Kit Flyer:
80-6016-0212-3

CD:
80-6016-0213-1

Student Kit:
80-6114-2896-4




























PREMIUM VINYL ELECTRICAL TAPES

FEATURES	ADVANTAGES	BENEFITS
All-weather tape design	Best adhesion and handling in all weather conditions	Makes job easier and eliminates redos
Resists weather, UV resistance, abrasion and corrosion	Long lasting	Lower maintenance cost
Far exceeds minimum agency requirements	Highest quality in product category	Provides freedom from worry

**Holds strong
under extreme weather
conditions**



Specifications for Vinyl Electrical Tapes

Product Name	Product Description	Tape Thickness	U.V. Resistance	Temp. Rating	Typical Applications	Specs./ Certifications and Listings	U.S. Made
 Scotch® Super 33+™ Professional Use Premium Vinyl Electrical Tape, black	Highly conformable, super stretchy in all weather applications; resists UV rays, abrasion, corrosion.	7 mil	Exceeds UL510 requirements	221°F 105°C	Primary insulation for splices up to 600V. Protective jacketing.	A-A-55809 ASTM D-3005 Type I   RoHS	
 Scotch® Professional Use Vinyl Electrical Tape 35 for Color Coding	Nine fade-resistant colors, super stretchy and conformable, excellent insulating properties. Resists UV rays, abrasion, corrosion, alkalis and acid.	7 mil	Exceeds UL510 requirements	221°F 105°C	Phase identification and marking. Harnessing.	A-A-55809   RoHS	
 Scotch® Professional Use Premium Vinyl Electrical Tape Super 88, black	All weather; heavy duty, professional use, abrasion resistant, fast buildup.	8.5 mil	Exceeds UL510 requirements	221°F 105°C	Primary insulation for splices up to 600V. Protective jacketing.	ASTM D-3005 Type II   RoHS	
 Scotch® Heavy Duty Vinyl Electrical Tape 22, black	Thicker for increased mechanical strength and abrasion resistance. Electrical insulating.	10 mil	Exceeds UL510 requirements	176°F 80°C	Bus bar insulation. Cable jacket repair.	ASTM D-2301 Type II   RoHS	
 Scotch® Vinyl Electrical Tape 66R, black	Excellent mechanical strength, abrasion resistance and electrical insulating properties.	10 mil UL510	Exceeds UL510 requirements	221°F 105°C for 600V bus bar	Primary insulation. Protective jacketing.	 RoHS	
 3M™ Highland™ Commercial Grade Electrical Tape, black	Flexible, stretchy, conformable, commercial grade vinyl. Flame retardant.	7 mil	Meets UL510 requirements	194°F 90°C	Protective jacketing. Harnessing. Bundling.	ASTM D-2301 Type I   RoHS	
 3M™ Temflex™ General Purpose Vinyl Electrical Tape 1700, black	Economical, flexible, general purpose tape.	7 mil	Meets UL510 requirements	176°F 80°C	Protective jacketing. Harnessing. Bundling.	ASTM D-2301 Type I   RoHS	No
 3M™ Electrical Tape Training Kit	Supplies Include: Scotch® Super 33+, Scotch Super 88, Scotch Tape 35, Scotch 2200, Scotch 2228, Scotch Tape 70, Scotch Glass 27, Scotch 2520 and Scotch 130C. Other supplies include: split bolt, motor lead, inline splice, bus bar.	N/A	N/A	N/A	N/A	N/A	N/A

Ordering Information for Vinyl Electrical Tapes

Product Name	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
Scotch® Super 33+™ Vinyl Electrical Tape, black				
Super 33+	06130	3/4" x 20' (19 mm x 6,1 m)	10/box	100 rolls
Super 33+	10075	3/4" x 44' (19 mm x 13,4 m)	1/can, 10/ctn	100 rolls
Super 33+	00053	3/4" x 36 yd. (19 mm x 32,9 m)	N/A	48 rolls
Super 33+	06132	3/4" x 66' (19 mm x 20,1 m)	10/ctn	100 rolls
Super 33+Disp.	10216	3/4" x 66' (19 mm x 20,1 m)	1/disp, 10/ctn	100 rolls
Super 33+	08949	1" x 36 yd. (25,4 mm x 32,9 m)	N/A	48 rolls
Super 33+	50236	1-1/2" x 36 yd. (38 mm x 32,9 m)	N/A	50 rolls
3M™ Electrical Tape Training Kit	56308*	N/A	1 Kit	1 Kit
Scotch® Vinyl Electrical Tape 35 for Color Coding				
35 Blue	10240	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Blue	10836	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Brown	10299	1/2" x 20' (13mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Brown	10885	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Gray	10281	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Gray	00072	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Green	10265	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Green	10851	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Orange	10273	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Orange	10869	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Red	10224	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Red	10810	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Violet	49923	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Violet	11271	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 White	10232	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 White	10828	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Yellow	10257	1/2" x 20' (13 mm x 6,1 m)	1/cello, 10/ctn	100 rolls
35 Yellow	10844	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
35 Multi-color Pack (Bl, Gn, Re, Ye, Wh)*	59073**	1/2" x 20' (13 mm x 6,1 m)	5 rolls/pack	60 rolls
Scotch® Vinyl Electrical Tape Super 88, black				
Super 88	10307	3/4" x 44' (19 mm x 13,4 m)	1/can, 10/ctn	100 rolls
Super 88	06143	3/4" x 66' (19 mm x 20,1 m)	1/can, 10/ctn	100 rolls
Super 88	10323	3/4" x 36 yd. (19 mm x 32,9 m)	1/box, 12/ctn	48 rolls
Super 88	10331	1" x 36 yd. (25,4 mm x 32,9 m)	N/A	48 rolls
Super 88	10364	1-1/2" x 44' (38 mm x 13,4 m)	1/box, 10/ctn	100 rolls
Super 88	10349	1-1/2" x 36 yd. (38 mm x 32,9 m)	N/A	12 rolls
Super 88	10356	2" x 36 yd. (51 mm x 32,9 m)	1/box	12 rolls

Note: Other widths and lengths available upon request.

Ordering Information for Vinyl Electrical Tapes

Product Name	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
Scotch® Heavy-Duty Vinyl Electrical Tape 22, black				
22	10026	1/2" x 36 yd. (13 mm x 32,9 m)	N/A	48 rolls
22	10034	3/4" x 36 yd. (19 mm x 32,9 m)	1/box 12/ctn	48 rolls
22	10042	1" x 36 yd. (25,4 mm x 32,9 m)	N/A	48 rolls
22	10059	1-1/2" x 36 yd. (38 mm x 32,9 m)	N/A	12 rolls
22	10067	2" x 36 yd. (51 mm x 32,9 m)	N/A	12 rolls
Scotch® Vinyl Electrical Tape 66R, black (made to order)				
	43249	3/4" x 36 yd. (19 mm x 32,9 m)	N/A	48 rolls
	43250	1" x 36 yd. (25,4 mm x 32,9 m)	N/A	36 rolls
		Other sizes available upon request.		
3M™ Highland™ Vinyl Electrical Tape				
	16720	3/4" x 66' (19 mm x 20,1 m)	1/cello	100 rolls
3M™ Temflex™ Vinyl Electrical Tape 1700, black				
1700	49700	3/4" x 36 yd. (19 mm x 32,9 m)	1/cello, 10/sleeve	100 rolls
1700	69764	3/4" x 60' (19 mm x 18,3 m)	1/cello, 10/sleeve	100 rolls
1700	49571	3/4" x 66' (19 mm x 20,1 m)	1/cello, 10/sleeve	100 rolls
1700	43962	1" x 66' (25,4 mm x 20,1 m)	N/A	99 rolls
1700P MHS A Printed	08175	3/4" x 66' (19 mm x 20,1 m) [Bulk]	N/A	100 rolls
1700P MHS A Printed	08408	1-1/2" x 44' (38 mm x 13,4 m) [Bulk]	N/A	100 rolls
1700P MHS A Printed	50750	1-1/2" x 66' (38 mm x 20,1 m)	5 rolls/sleeve	100 rolls

Note: Other widths and lengths available upon request.

*Minimum order quantities apply.

**UPC prefix 051131-

PRODUCT REFERRAL GENERATOR

Padding	pg. 14
Moisture Sealing	pg. 14
Splicing	pg. 311
Connecting	
– Lugs and Connectors	pg. 147

Insulating and Splicing Tapes

Scotch® Linerless Rubber Splicing Tape 130C

Scotch Electrical Tape 130C is a highly conformable, linerless Ethylene Propylene Rubber (EPR), high-voltage insulating tape that provides excellent thermal dissipation of splice heat. Scotch 130C meets industry specifications and has excellent physical and electrical properties, which helps provide immediate moisture seal and void-free buildups. Scotch 130C is rated up to 194°F (90°C) continuous operating temperatures and short-term 266°F (130°C) overload service. This tape should be applied like any rubber tape—that is, the side of the tape wrapped inside the roll should be applied outside on the splice (tacky side up). This will help prevent the roll from getting progressively further away from the work area.



Scotch® Linerless Rubber Splicing Tape 130C

(EPR)-based, high-voltage splicing tape. Scotch Electrical Tape 13 elongates easily to conform to irregular shapes and retains its conductivity when stretched.

Scotch® Electrical Shielding Tape 24

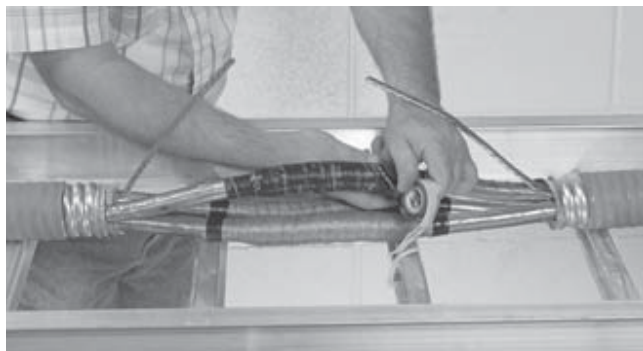
Scotch Electrical Shielding Tape 24 is an all-metal, flat, open-weave shielding braid that is compatible with power cable insulations and all high-voltage splicing and terminating materials. Scotch Electrical Shielding Tape 24 elongates easily to conform and is temperature stable.

Scotch® Electrical Grounding Braid 25

Scotch Electrical Grounding Braid 25 is a flat, all-metal woven electrical grounding braid that is compatible with all power cable insulations and high-voltage splicing and terminating materials. The Scotch Electrical Grounding Braid 25 is conformable and temperature stable, and has a high carrying current capacity approximately that of #6 AWG wire.

Scotch® Self-Fusing Silicone Rubber Electrical Tape 70

Scotch Self-Fusing Silicone Rubber Electrical Tape 70 is a high-temperature, arc-and track-resistant tape composed of self-fusing, inorganic silicone rubber with an easy-tear and easy-strip liner. Scotch Self-Fusing Silicone Rubber Electrical Tape 70 can be used as base tape layer to cleanly re-enter connections.



Scotch® Rubber Splicing Tape 23

Scotch® Rubber Splicing Tape 23

Scotch Rubber Splicing Tape 23 is a highly conformable, self-fusing Ethylene Propylene Rubber (EPR)-based, high-insulating voltage tape. Scotch 23 has a “snakeskin” liner that is easily removed as the tape is applied.

Scotch® Electrical Semi-Conducting Tape 13

Scotch Electrical Semi-Conducting Tape 13 is a highly conformable, semi-conducting Ethylene Propylene Rubber

Scotch® Self-Fusing, Silicone Heavy Duty Triangular Electrical Tape 70HDT

Scotch® Self-Fusing, Silicone Rubber Heavy Duty Triangular Electrical Tape 70HDT is a high-temperature, arc-and-track resistant tape composed of self-fusing, silicone rubber with an easy-tear and easy-strip liner. This product is just like the Scotch® Self-Fusing Silicone Rubber Electrical Tape 70HDT, but has a triangular tapered edge profile (thicker in the middle) and a blue guideline to make half-lapping application easier.

Scotch® Fire and Electric Arc Proofing Tape 77

Scotch Fire and Electric Arc Proofing Tape 77 is designed to protect all types of electrical cables when exposed to potential failures in an adjacent cable. Its unique formulation expands in fire to form a thick char buildup between the flame and the cable. The resulting firewall acts as a heat shield and flame barrier, thus protecting the nearby cables and accessories.

3M™ Linerless Splicing Compound 2242



3M Linerless Splicing Compound 2242 is a multipurpose rubber insulating tape designed for use in splicing and terminating wires and cables rated up to 194°F (90°C). 3M Linerless Splicing Compound 2242 is a highly conformable, linerless Ethylene Propylene Rubber (EPR)-based tape.

3M™ Scotchfil™ Electrical Insulation Putty

3M Scotchfil Putty is an electrical grade, rubber-based, elastic-type putty in tape form.



It can be wrapped, stretched or molded around irregular shapes for quick, smooth insulation build-up. Use Scotchfil putty to insulate connections up to 600 volts and to round out high-voltage connections to gear, smooth bus bar irregularities, and make a moisture seal at ground wire exits in high-voltage splices. UL Recognized Component listing for 176°F (80°C) when used in combination with Super 33+ or 88 tapes (Guide OCDT2, File E59951).

Scotch® Electrical Insulating Varnished Cambric Tape 2510 and 2520

Scotch Electrical Insulating Varnished Cambric Tape 2510 and 2520 are cotton



cambric fabric tapes, oil primed and coated with high-grade yellow electrical insulating varnish for quality electrical insulating. Scotch 2510/2520 are temperature stable tape products that allow for clean re-entry of electrical connections. Scotch 2510 has no adhesive and Scotch 2520 has a pressure-sensitive adhesive.

















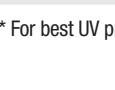

LINERLESS RUBBER TAPES

FEATURES	ADVANTAGES	BENEFITS
No liner	Makes job easier	Saves time, lower installed cost
Excellent thermal dissipation	More stable splices	Provides longer cable life, reduces life cycle cost
Highly conformable	High quality moisture seal	Eliminates call-backs

PRODUCT REFERRAL GENERATOR

Cable Cleaning	410
Insulating	
– Jacketing Tubes	384
Connecting	
– Lugs and Connectors	147

Specifications for Insulating and Splicing Tapes

Product Name	Product Description	Tape Thickness	U.V. Resistance	Temp. Rating	Typical Applications	Specs./ Certifications and Listings	U.S. Made
 Scotch® Linerless Rubber Splicing Tape 130C	High voltage insulating; thermally conductive; self-bonding.	30 mil	No*	continuous: 194°F (90°C) short-term: 266°F (130°C)	Primary electrical insulation for splicing all solid dielectric cables through 69kV.	ASTM D-4388 Type I, II, and III HH-I-553C RoHS	
 Scotch® Electrical Semiconducting Tape 13	Rubber tape, semi-conductive. Compatible with cable semi-conducting jackets.	30 mil	No*	continuous: 194°F (90°C) short-term: 266°F (130°C)	Electrically round high voltage connections. Provide cable shield continuation.	ASTM D-4388 Type IV RoHS	
 Scotch® Rubber Splicing Tape 23	High and low voltage insulating, self-fusing rubber tape.	30 mil	N/A	continuous: 194°F (90°C) short-term: 266°F (130°C)	Primary electrical insulation for splicing all solid dielectric cables through 69kV.	HH-I-3825B ASTM D-4388 Type I, II, and III RoHS	
 Scotch® Electrical Shielding Tape 24	All metal open weave shielding braid, conformable, temperature stable.	N/A	N/A	N/A	Continue electrostatic shielding across splice.	RoHS	
 Scotch® Electrical Grounding Braid 25	All metal woven braid; high current carrying capacity of 6 AWG wire; solderable.	N/A	N/A	N/A	Conformable ground braid for splices and terminations.	RoHS	
 Scotch® Self-Fusing Silicone Rubber Electrical Tape 70	Arc and track resistant; self-fusing, long lasting silicone rubber.	12 mil	Excellent	356°F (180°C)	Protective overwrap for terminating high voltage cables.	RoHS	
 Scotch® Heavy Duty Triangular Self-Fusing Silicone Rubber Electrical Tape 70HDT	Arc and track resistant; self-fusing, long lasting silicone rubber, triangular tapered edge profile and a blue guideline.	20 mil center, 8 mil edge	Excellent	356°F (180°C)	Protective overwrap for terminating high voltage cables.	RoHS	
 Scotch® Fire and Electric Arc Proofing Tape 77	Protects cable until limiting devices can interrupt faulted current.	30 mil	Excellent	N/A	Use on high-energy cables that are within 18" of other high energy cables.	RoHS	
 3M™ Linerless Splicing Compound 2242	General purpose rubber insulating tape.	30 mil	No*	continuous: 194°F (90°C) short-term: 266°F (130°C)	All-voltage splicing, jacketing, and general insulating.	HH-I-553C ASTM D-4388 Type I, II, and III RoHS	
 3M Scotchfil™ Electrical Insulation Putty	Black, self-fusing, insulating putty in tape form.	125 mil	No*	176°F (80°C)	Insulate connections up to 600V. Smooth bus bar irregularities.	 File E 59951 RoHS	
 Scotch® Varnished Cambric Tape 2510 and 2520	Yellow, varnish coated cotton cloth 2510: no adhesive; 2520: adhesive.	7 mil 8 mil	No*	220°F (105°C)	Insulate bus bars, motor leads (for re-entry), service drop connections.	RoHS	
 3M™ Temflex™ Rubber Splicing Tape 2155	Replaces 2150. Economical low voltage rubber insulating tape; self-fusing.	30 mil	No*	176°F (80°C)	Insulating wire splices, split bolt connections, and motor leads up to 600V.	 RoHS	

* For best UV protection, overwrap with Scotch® Super 33+™

Ordering Information for Insulating and Splicing Tapes

Product Number	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
Scotch® Linerless Rubber Splicing Tape 130C, black				
130C	41717	3/4" x 30' (19 mm x 9,1 m)	1/box	24 rolls
130C	41751	1" x 10' (25 mm x 3 m)	N/A	24 rolls
130C	41752	1" x 15' (25 mm x 4,6 m)	1/box	24 rolls
130C	41753	1" x 30' (25 mm x 9,1 m)	1/box	24 rolls
130C	41718	1-1/2" x 30' (38 mm x 9,1 m)	1/box	12 rolls
130C	41754	2" x 30' (51 mm x 9,1 m)	1/box	12 rolls
Scotch® Electrical Semi-Conducting Tape 13				
13	15017	3/4" x 15' (19 mm x 4,57 m)	1/box, 10/ctn	50 rolls
Scotch® Rubber Splicing Tape 23, black				
23	15025	3/4" x 30' (19 mm x 9,1 m)	1/box, 50/ctn	50 rolls
23	13061	1" x 20' (25 mm x 6,1 m)	N/A	100 rolls
23	00059	1" x 30' (25 mm x 9,1 m)	1/box, 50/ctn	50 rolls
23	11214	1-1/2" x 30' (38 mm x 9,1 m)	1/box, 10/ctn	50 rolls
23	15033	2" x 30' (51 mm x 9,1 m)	1/box, 10/ctn	50 rolls
Note: Other widths and lengths available upon request.				
Scotch® Electrical Shielding Tape 24				
24	15058	1" x 100' (25 mm x 30,5 m)	1/box, 10/ctn	10 rolls
24	15041	1" x 15' (25 mm x 4,6 m)	1/box, 10/ctn	50 rolls
24	57289*	2" x 10' (51 mm x 3 m)	20/ctn	20 rolls
Scotch® Electrical Grounding Braid 25				
	11602	1/2" x 15' (13 mm x 4,6 m)	1/box	1 roll
Scotch® Self-Fusing Silicone Rubber Electrical Tape 70, gray				
	15603	1" x 30' (25 mm x 9,1 m)	1/box, 10/ctn	50 rolls
Scotch® Self-Fusing, Silicone Heavy Duty Triangular Electrical Tape 70HDT				
	56030*	1" x 30' (25.4 mm x 9,1 m)	1/box	50 rolls
Scotch® Fire and Electric Arc Proofing Tape 77, black				
77	42007	1-1/2" x 20' (38 mm x 6,1 m)	1/bag	10 rolls
77	42006	3" x 20' (76 mm x 6,1 m)	1/bag	10 rolls
3M® Linerless Splicing Compound 2242, black				
2242	06165	3/4" x 15' (19 mm x 4,6 m)	1/bag	24 rolls
2242	41323	1-1/2" x 15' (38 mm x 4,6 m)	1/bag	12 rolls
2242	43251	2" x 15' (51 mm x 4,6 m)	N/A	8 rolls
3M® Scotchfil™ Electrical Insulation Putty				
	41750	1-1/2" x 60" (38 mm x 1,53 m)	4/ctn	12 rolls

*UPC prefix 051128-

Ordering Information for Insulating and Splicing Tapes

Product Number	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
Scotch® Varnished Cambric Tape 2510, yellow				
2510	41720	3/4" x 60' (19 mm x 18,3 m)	1/box, 10/ctn	20 rolls
2510	10661	3/4" x 36 yd. (19 mm x 33 m)	N/A	48 rolls
2510	10687	1" x 36 yd. (25 mm x 33 m)	N/A	36 rolls
2510	10703	1-1/2" x 36 yd. (38 mm x 33 m)	N/A	24 rolls
2510	10711	2" x 36 yd. (51 mm x 33 m)	N/A	16 rolls
2510	15751	36" x 25 yd. (914,4 mm x 22,9 m)	N/A	1 roll
Scotch® Varnished Cambric Tape 2520, yellow				
2520	04836	3/4" x 60' (19 mm x 18,3 m)	1/box, 10/ctn	20 rolls
2520	04835	3/4" x 36 yd. (19 mm x 33 m)	N/A	48 rolls
2520	04833	1" x 36 yd. (25 mm x 33 m)	N/A	36 rolls
2520	04832	1-1/2" x 36 yd. (38 mm x 33 m)	N/A	24 rolls
2520	04834	2" x 36 yd. (51 mm x 33 m)	N/A	16 rolls
3M™ Temflex™ Rubber Splicing Tape 2155, black				
2155 (replaces 2150)	50348	3/4" x 22' (19 mm x 6,7 m)	N/A	50 rolls
2155 (replaces 2150)	50349	1-1/2" x 22' (38 mm x 6,7 m)	N/A	45 rolls

Conforms
to any
situation



Sealing and Insulating Mastic Tapes

Scotch® Vinyl Mastic Pads 2200 (125 mil) and Scotch® Vinyl Mastic Roll 2210 (90 mil)

Scotch Vinyl Mastic Pads 2200 and Scotch Vinyl Mastic Rolls 2210 are self-fusing, rubber-based insulating compounds laminated to a flexible, all-weather grade PVC backing. Both rolls and pads are resistant to abrasion, moisture, alkalis, acid, copper corrosion, UV and varying weather conditions.



Scotch® 2210 Vinyl Mastic Roll

Scotch® Electrical Moisture Sealant (45 mil) 06147 and 06149

Scotch Electrical Moisture Sealant 06147 and 06149 are self-fusing, rubber-based thin insulating mastic compounds laminated to a flexible, all-weather grade PVC backing and are designed for moisture sealing of electrical connections up to 600 volts.



Scotch® Rubber Mastic Tape 2228

Scotch Rubber Mastic Tape 2228 is a conformable self-fusing rubber electrical insulating and sealing tape. Scotch® Rubber Mastic 2228 consists of Ethylene Propylene rubber (EPR) backing coated with a strong, temperature-stable mastic adhesive.



3M™ Scotch-Seal™ Mastic Tape Compound 2229

3M Scotch-Seal Mastic Tape Compound 2229 is designed for quick and easy insulating, padding and sealing of electrical connections. It is a conformable, durable, tacky mastic with an easy release liner for easy applications over irregular surfaces and provides excellent moisture resistance. It features superior self-healing characteristics after being punctured or cut.



3M™ Scotchfil™ Electrical Insulation Putty

Use as a build-up compound on highly irregular surfaces such as fittings and valves, providing a smooth, waterproof taping surface. Scotchfil Putty is soft and pliable—simply press putty into place on irregular surfaces, mold with finger pressure and overtape using standard methods.



Scotch® Cable Jacket Repair Tape 2234

Scotch Cable Jacket Repair Tape 2234 has a tough abrasion-resistant backing for jacket repair on industrial cables, such as flexible portable power cables, draglines, diesel locomotive cable, welding and shipboard cables. Due to abrasive dragging and reeling of these flexible cables, the original jacketing gets damaged often and needs to be repaired. Scotch Cable Jacket Repair Tape 2234 is flexible and the self-healing property of the mastic keeps out moisture.



SCOTCH® CABLE JACKET REPAIR TAPE 2234

FEATURES	ADVANTAGES	BENEFITS
Flexible, Hypalon backing	Oil resistance, abrasion, easy jacket repair	Makes job easier, no rigid areas on the reel
Self-fusing mastic	Fix for flexible cable, excellent moisture seal	Saves money, less moisture-related downtime
Compatible with many cable jackets	One solution for many cables	Saves time







PRODUCT REFERRAL GENERATOR

- Insulating
- Cold Shrink pg. 384
 - Heat Shrink pg. 384

Cable Compatibility

Cable Type	Insulation	Jacket
DLO	EPR	CSPE
MC	XPE	PVC
MV	EPR	CSPE/CPE/PVC
PLTC	XPE/PVC	CSPE/PVC
RHH, RHW	CSPE/EPR	EPR/PVC
RW, RWU	XPE	XPE/PVC
SE, THHN, THWN	PVC	PVC
SO, SOW	EPR	CPE
TC	XLP/EPR/PVC	CSPE/PVC/CPE/Neopr.
Welding Cable	EPR	EPDM/EPR
XHHW	XPE	XPE/PVC

Specifications for Sealing and Insulating Mastic Tapes

Product Name	Product Description	Tape Thickness	U.V. Resistance	Temp. Rating	Typical Applications
 Scotch® Vinyl Mastic 2200 and 2210	Excellent moisture sealant; tough vinyl backing; electrical insulating.	2200 - 125 mil 2210 - 90 mil	Excellent	176°F (80°C)	Insulate moisture-seal and pad connections up to 600V.
 Scotch® Moisture Sealant 06147 and 06149	Excellent moisture sealant; tough vinyl backing; electrical insulating.	6147 - 45 mil 6149 - 45 mil	Excellent	176°F (80°C)	Insulate moisture-seal and pad connections up to 600V.
 Scotch® Rubber Mastic Tape 2228	Self-fusing rubber based compound bonded to a moisture sealing mastic; all weather.	65 mil	No*	194°F (90°C) emergency overload of 266°F (130°C)	Insulate, pad and seal bus bar and splice connections.
 3M® Scotch-Seal Mastic Tape Compound 2229	Conformable and durable mastic. Excellent moisture and environmental seal.	125 mil	No*	176°F (80°C)	Sealing high voltage cables and accessories.
 3M® Scotchfil™ Black, Electrical Insulation Putty	Self-fusing, insulating putty in tape form.	125 mil	N/A	176°F (80°C)	Smooths irregularities on fittings and valves.
 Scotch® Cable Jacket Repair Tape 2234	Tough, black, self-healing, abrasion-resistant backing for jacket repair on industrial cables.	6 mil	No*	194° (90°C) Maximum	Abrasion and moisture resistant, flexible and quick on-site cable repairs.

* For best UV protection, overwrap with Scotch® Super 33+™.

Ordering Information for Sealing and Insulating Mastic Tapes

Product Number	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
Scotch® Vinyl Mastic 2200 and 2210				
2200	11008	3-1/4" x 4-1/2" pads (83 mm x 114 mm)	10/box	50 pads
2200	21296	6-1/2" x 4-1/2" pads (165 mm x 114 mm)	10/box	50 pads
2210	11222	4" x 10' roll (102 mm x 3,05 m)	1/box	10
Scotch® Electrical Moisture Sealant 06147 and 06149				
06147	06147	2-1/2" x 10' (63 mm x 3,05 m)	1/roll	10 rolls
06149	06149	2-1/2" x 2-1/2" (63 mm x 63 mm)	25 pads/box	10
Scotch® Rubber Mastic Tape 2228				
2228	50727	1" x 10' (25 mm x 3,05 m)	N/A	12 rolls
2228	43478	2" x 3' (51 mm x 0,9 m)	N/A	48 rolls
2228	09656	2" x 10' (51 mm x 3,05 m)	N/A	10 rolls
3M® Scotch-Seal Mastic Tape Compound 2229				
2229	49702	3-3/4" x 10' (102 mm x 3,05 m)	N/A	8 each
2229	50335	1" x 10' (25 mm x 3,05 m)	N/A	12 each
2229-P	41303	2-1/2" x 3-3/4" pads (63,5 mm x 95,25 mm)	10/box, 40/cs.	40 pads
2229-P	50336	3-3/4" x 3-3/4" pads (95,25 mm x 95,25 mm)	10/box, 40/cs.	40 pads
2229-P	50337	3-3/4" x 6-1/2" pads (95,25 mm x 165,1 mm)	N/A	40 pads
Scotch® Mastic Strip 2230				
	41813	5/8" x 6" (15,86 mm x 152,4 mm)	N/A	40 each
3M Scotchfil Electrical Insulation Putty				
	41750	1-1/2" x 60" (38 mm x 1,53 m)	4/ctn	12 rolls
Scotch® Cable Jacket Repair Tape 2234				
	57493*	2" x 6' (50,8 mm x 1,82 m)	10 rolls/box	10 rolls

* UPC prefix 051128-

Corrosion Protection Tapes

3M™ Scotchrap™ All-Weather Corrosion Protection Tapes 50 and 51

3M Scotchrap Corrosion Protection Tapes 50 (10 mils) and 51 (20 mils) are tough, polyvinyl chloride (PVC) tapes with high-tack adhesives that resist corrosion of metal piping systems above and below ground. Both tapes apply over a wide temperature range and are resistant to impact, abrasion and punctures. Coat the pipe or other metal surfaces with Scotchrap Pipe Primer before wrapping with Scotchrap 50 or 51.



3M™ Scotchrap™ All-Weather Corrosion Protection Tape 51 and 3M™ Scotchrap Pipe Primer

3M™ Scotchrap™ Pipe Primer

A quick-drying, non-sag rubber base primer that permeates metal surface pits and irregularities, preparing the surface for tape application. Compatible with the special adhesive on Scotchrap Tapes, it enhances adhesion. To be used with Scotchrap All-Weather Corrosion Protection Tapes 50 and 51.

SCOTCHRAP ALL-WEATHER CORROSION PROTECTION TAPE 50

FEATURES	ADVANTAGES	BENEFITS
10 mils, PVC backing	Flexible	Easy to use, which saves time
Excellent moisture and abrasive resistance	Resists pipe corrosion	Cuts down on replacement costs
High quality adhesive	Excellent quick stick	Easy to use

SCOTCHRAP ALL-WEATHER CORROSION PROTECTION TAPE 51





FEATURES	ADVANTAGES	BENEFITS
20 mils, PVC backing	Superior mechanical strength and abrasion resistance	Provides confidence about the job and freedom from worry

NOTE: Scotchrap Pipe Primer should be used with all corrosion protection tapes.

PRODUCT REFERRAL GENERATOR

Insulating	
– Tape	pg. 14
Padding	pg. 14
Sealing and Repair	pg. 383

Specifications for Corrosion Protection Tapes

Product Name	Product Description	Tape Thickness	U.V. Resistance	Temp. Rating	Typical Applications
 3M™ Scotchrap™ Corrosion Protection 50 and 51	All-weather performance and corrosion resistance. Resistant to impact and abrasions.	50 - 10 mil 51 - 20 mil	Excellent Excellent	176°F (80°C)	Corrosion protection on pipes, conduits and fittings, etc.
 3M™ Scotchrap™ Pipe Primer	Quick-dry, non-sag rubber base primer that prepares metal surfaces for tape application.	N/A	N/A	176°F (80°C)	For use with Scotchrap tapes 50 and 51 and Temflex™ Tape 1100.
 3M™ Temflex™ Tape 1100	General purpose corrosion resistant tape. Good abrasion resistance.	10 mil	Yes	176°F (80°C)	Corrosion protection on conduits, fittings and joints, etc.
 3M™ Temflex™ Tape 1200	General purpose corrosion resistant tape. Good abrasion resistance.	20 mil	Yes	176°F (80°C)	Corrosion protection on conduits, fittings and joints, etc.

Ordering Information for Corrosion Protection Tapes

Product Number	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
3M Scotchrap All-Weather Corrosion Protection Tapes 50 and 51, black				
50	11149	1" x 100' (25 mm x 30,5 m)	1/box	10 rolls
50	00014	1" x 100' (25 mm x 30,5 m)	N/A	48 rolls
50	11156	2" x 100' (51 mm x 30,5 m)	1/box	10 rolls
50	10638	2" x 100' (51 mm x 30,5 m)	N/A	24 rolls
50	09468	3" x 100' (76 mm x 30,5 m)	N/A	16 rolls
50	10646	4" x 100' (102 mm x 30,5 m)	N/A	12 rolls
50	15785	6" x 100' (152 mm x 30,5 m)	N/A	8 rolls
50 Printed*	00012	1" x 100' (25 mm x 30,5 m)	N/A	48 rolls
50 Printed	00013	2" x 100' (51 mm x 30,5 m)	N/A	24 rolls
50 Printed	00018	4" x 100' (102 mm x 30,5 m)	N/A	12 rolls
51	42806	1" x 100' (25 mm x 30,5 m)	N/A	24 rolls
51	42807	2" x 100' (51 mm x 30,5 m)	N/A	12 rolls
51	42808	4" x 100' (102 mm x 30,5 m)	N/A	4 rolls
51	42809	6" x 100' (152 mm x 30,5 m)	N/A	4 rolls
51 Printed**	42802	1" x 100' (25 mm x 30,5 m)	N/A	24 rolls
51 Printed	42803	2" x 100' (51 mm x 30,5 m)	N/A	12 rolls
51 Printed	42804	4" x 100' (102 mm x 30,5 m)	N/A	4 rolls
51 Printed	42805	6" x 100' (152 mm x 30,5 m)	N/A	4 rolls
Note: 100 sq. ft. (9,3 m ²) of tape equals a square. Example: 2 rolls of 6 in. x 100 ft. (152 mm x 30,5 m), 3 rolls of 4 in. x 100 ft. (101 mm x 30,5 m), 6 rolls of 2 in. x 100 ft. (51 mm x 30,5 m), 12 rolls of 1 in. x 100 ft. (25 mm x 30,5 m)				
3M Scotchrap Pipe Primer	42768	1 gallon can (3,79 liters)	N/A	4 gallons
3M Temflex Corrosion Protection Tape 1100				
1100 Printed	09065	2" x 100' (51 mm x 30,5 m)	N/A	24 rolls
1100	09061	2" x 100' (51 mm x 30,5 m)	N/A	24 rolls
3M Temflex Corrosion Protection Tape 1200				
1200 Printed	51128-56330	2" x 100' (51 mm x 30,5 m)	N/A	12 rolls

Note: 3M Scotchfil™ Putty must be overwrapped with Scotchrap or Temflex. Note: Printed tapes are printed with product name and thickness.

*Printed version of 50 Tape is Scotchrap Tape 10 mil

**Printed version of 51 Tape is Scotchrap Tape 20 mil

Mining Tapes and Kits


Scotch® Heavy Duty Mining Tape 31

Scotch Heavy Duty Mining Tape 31 has a tough, abrasion-resistant backing for jacket repair on mining cables. Due to the extreme mining environment, the original jacket on mining cable gets damaged and needs repair. MSHA-approved Scotch Heavy Duty Mining Tape 31 offers an innovative solution for cable repair. With its Hypalon® backing, abrasion-resistant properties and flame retardant mastic, the tape applies easily and remains flexible while maintaining a strong moisture seal.



Scotch® Heavy Duty Mining Tape 31

Specifications for Mining Tapes and Kits

Product Name	Product Description	Tape Thickness	U.V. Resistance	Temp. Rating	Typical Applications
 Scotch® Heavy Duty Mining Tape 31	Tough, black, self-healing, abrasion-resistant backing for jacket repair on mining cables. P-07-KA080005-MSHA	6 mil	No	194°F (90°C) Maximum	Abrasion and moisture resistant, flexible and quick on-site cable repairs.

Ordering Information for Mining Tapes and Kits

Product Number	UPC (051128-)	Size	Inner Unit Pack	Case Qty.
Scotch® Heavy Duty Mining Tape 31	57149	2" x 6' (51 mm x 1,82 m)	10 rolls/box	10 rolls
Scotch® Heavy Duty Mining Tape 31	56812	2" x 8.5' (51 mm x 2,4 m)	10 rolls/box	10 rolls
Scotch® Heavy Duty Mining Tape 31	57150	2" x 10' (51 mm x 3,05 m)	10 rolls/box	10 rolls

3M™ Splice Kit Contents

Kit Contents	Size	Voltage	Cable Range
MINING CABLE SPLICE KIT 3100			
1 Scotch® Heavy Duty Mining Tape 31	2" x 8.5'	600V - 2kV	#6-500 kcmil
1 Scotch® Linerless Rubber Splicing Tape 130C	1-1/2" x 30'	600V - 2kV	#6-500 kcmil
1 3M™ Temflex™ Vinyl Electrical Tape 1700P	1-1/2" x 44'	600V - 2kV	#6-500 kcmil
1 3M™ Cable Cleaning Preparation Kit CC-2-Dry		600V - 2kV	#6-500 kcmil
MINING CABLE SPLICE KIT 3103			
2 Scotch® Heavy Duty Mining Tape 31	2" x 8.5'	5 - 15kV	#6-500 kcmil
1 3M™ Temflex™ Vinyl Electrical Tape 1700P	1-1/2" x 44'	5 - 15kV	#6-500 kcmil
3 Scotch® Electrical Shielding Tape 24	2" x 10'	5 - 15kV	#6-500 kcmil
2 Scotch® Rubber Mastic Tape 2228	1" x 10'	5 - 15kV	#6-500 kcmil
2 3M™ Cable Cleaning Preparation Kit CC-2-Dry		5 - 15kV	#6-500 kcmil
3 Scotch® Electrical Semi-Conductive Tape 13	3/4" x 15'	5 - 15kV	#6-500 kcmil
3 Scotch® Linerless Rubber Splicing Tape 130C	1-1/2" x 30'	5 - 15kV	#6-500 kcmil
3 Scotch® Linerless Rubber Splicing Tape 130C	3/4" x 30'	5 - 15kV	#6-500 kcmil

3M™ Splice Kit Contents

Kit Contents	Size	Voltage	Cable Range
MINING CABLE SPLICE KIT 3104			
1 Scotch® Heavy Duty Mining Tape 31	2" x 8.5'	2kV	#6-500 kcmil
1 3M™ Temflex™ Vinyl Electrical Tape 1700P	1-1/2" x 44'	2kV	#6-500 kcmil
2 Scotch® Electrical Shielding Tape 24	2" x 10'	2kV	#6-500 kcmil
1 3M™ Cable Cleaning Preparation Kit CC-2-Dry		2kV	#6-500 kcmil
2 Scotch® Linerless Rubber Splicing Tape 130C	1-1/2" x 30'	2kV	#6-500 kcmil

Kit Replacement Products

Product Name	Stock Number	UPC (054007-)	Size	Packaging	Minimum Order Qty.
Scotch® Heavy Duty Mining Tape	3180-6114-3749-4	051128-57149	2" x 6' (51 mm x 1,8 m)	10 rolls/box	10 rolls
Scotch® Heavy Duty Mining Tape	3180-6114-3400-4	051128-56812	2" x 8.5' (51 mm x 2,6 m)	10 rolls/box	10 rolls
Scotch® Heavy Duty Mining Tape	3180-6114-3750-2	051128-57150	2" x 10' (51 mm x 3,05 m)	10 rolls/box	10 rolls
Scotch® Linerless Rubber Splicing Tape	130C80-6108-3340-4	41717	3/4" x 30' (19 mm x 9,1 m)	24 rolls/box	24 rolls
Scotch® Linerless Rubber Splicing Tape	130C80-6108-3341-2	41718	1-1/2" x 30' (38 mm x 9,1 m)	12 rolls/box	12 rolls
3M™ Temflex™ Vinyl Electrical Tape	1700P80-6101-5439-7	08408	1-1/2" x 44' (38 mm x 13,4 m) bulk	N/A	100 rolls
Scotch® Electrical Shielding Tape	2480-6114-3889-8	051128-57289	2" x 10' (51 mm x 3,05 m)	20 rolls/box	20 rolls
Scotch® Electrical Semi-Conducting Tape	13HT-0020-0121-8	15017	3/4" x 15' (19 mm x 4,57 m)	1/box, 10/ctn.	10 rolls
Scotch® Rubber Mastic Tape 2228	80-6107-3766-2	50727	1" x 10' (25 mm x 3,05 m)	12 rolls/box	12 rolls
Scotch® Rubber Mastic Tape 2228	80-6103-2294-5	09656	2" x 10' (51 mm x 3,05 m)	12 rolls/box	10 rolls
3M™ Cable Cleaning Preparation Kit CC-2-Dry	80-6112-0013-2	43414		10/each	10 kits
3M™ Cable Cleaning Preparation Kit CC-2	80-6105-9299-2	49563		10/each	10 kits
Scotch® Glass Cloth Tape 27	80-0120-2036-0	15074	3/4" x 66'	50 rolls/box	10 rolls
Scotch® Glass Cloth Tape 69	80-0180-0360-0	09910	3/4" x 66'	50 rolls/box	10 rolls



3M™ Mining Cable Splice Kit 3100



3M™ Mining Cable Splice Kit 3103



3M™ Mining Cable Splice Kit 3104

Special Use Tapes

3M provides a wide range of tapes for special applications, from electrically insulating glass cloth tapes, to gaffers tape, and even duct tape.

Scotch® Glass Cloth Electrical Tapes 27 and 69

Scotch Glass Cloth Electrical Tapes 27 and 69 are woven glass cloth tapes with thermosetting, pressure-sensitive adhesives, which electrically insulate and provide mechanical protection at high temperatures. Scotch Electrical Tapes 27 Class B—266°F (130°C) and 69 Class H—356°F (180°C) deliver high-temperature performance.

Scotch® Thread Sealant and Lubricant 48

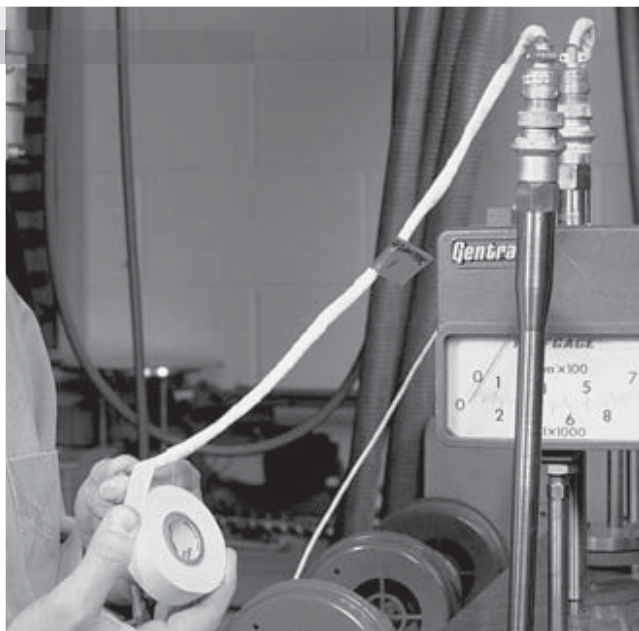
Scotch Thread Sealant Tape 48 is a high temperature stable (PTFE) pipe thread sealant that provides a leakproof seal.

Scotch® Performance Masking Tape 232

Scotch Performance Masking Tape 232 is a tough and extremely smooth, natural-colored, 6.3 mil (0,14 mm) thick, high performance, crepe paper tape. It is excellent for paint masking as well as many industrial applications. Scotch Masking Tape 232 will generally function during bake cycles of up to 250°F (121°C) for periods up to one hour. It should not be exposed to outdoor elements. It can be qualified to meet Fed. Spec. PPP-T-42C Type I and CID A-A-883B.

Scotch® General Purpose Masking Tape 234

Scotch General Purpose Masking Tape 234 is a natural-colored, 6.0 mil (0,14 mm) thick, paper tape. It is excellent for general industrial applications. It will generally function during bake cycles of up to 250°F (121°C) for periods up to one hour. It should not be exposed to outdoor elements. It can be qualified to meet Fed. Spec. PPP-T-42C Type I and CID A-A-883B.



Scotch® Glass Cloth Electrical Tape 27

Scotch® Transparent Duct Tape 2120-A

Scotch Transparent Duct Tape 2120-A offers clear advantages to ordinary duct tape. It is transparent when applied to make repairs less obvious, lasts six times longer than heavy duty duct tapes, tears easily by hand, and is resistant to water and UV rays. Scotch Transparent Duct Tape is extremely versatile and can be used on plastic, wood, glass, metal, vinyl and rubber.

3M™ Performance Plus Duct Tapes 8979/8979N

Offers six months of clean removal from most opaque surfaces; there is no sticky or dried-on adhesive residue to clean. Sunlight/UV and water resistant. It even stays on indoors and outdoors for up to one year without deterioration even in sunlight.














PRODUCT REFERRAL GENERATOR

Hi Temp Insulating – 70 Tape	pg. 9
Terminating	pg. 261
Connecting	pg. 147
















SCOTCH TAPE 27 AND 69

FEATURES	ADVANTAGES	BENEFITS
High temperature thermosetting adhesive	Excellent solvent resistance	Improves safety
Class B rating to Class H	High temperature resistance	Provides freedom from worry
Glass cloth backing	Mechanical protection	Lasts longer and improves safety

Specifications for Special Use Tapes

Product Name	Product Description	Tape Thickness	Temp. Rating	Typical Applications	Specs./ Certifications and Listings
 Scotch® Glass Cloth Tape 27 and 69	Woven insulating glass cloth; high temperature resistance; high mechanical strength.	27-7 mil 69-7 mil	27 is Class B temp 266°F (130°C) 69 is class H temp 356°F (180°C)	Heat-stable insulation for furnace and oven controls, motor leads, and switches.	Meets:  File E LR93411 17385
 Scotch® Thread Sealant and Lubricant Tape 48	Pipe thread sealant that provides a leakproof seal.	3 mil	500°F (260°C)	Leakproof seal helps prevent cross threading on pipe threads.	N/A
 Scotch® Performance Masking Tape 232	Premium grade masking tape.	6.3 mil	Up to 250°F (121°C)	Paint masking tape, bundling and protecting.	N/A
 Scotch® General Purpose Masking Tape 234	General purpose masking tape.	6.0 mil	Up to 250°F (121°C)	Holding, sealing, non-critical masking.	N/A
 3M™ Paper Tape 200	Utility purpose paper tape.	4.5 mil	200°F (93°C)	Non-critical masking and holding.	N/A
 3M™ Temflex™ Cotton Friction Tape 1755	High grade friction tape. Good abrasion resistance.	15 mil	176°F (80°C)	Abrasion protection for splices and connections.	N/A
 3M™ Duct Tape 6969	Extra heavy duty duct tape; excellent adhesion, tears easily. Silver.	10.7 mil	200°F (93°C)	Moisture proofing, plumbing, duct sealing, and protecting.	Meets:  HUD and BOCA
 3M™ Duct Tape 3939	Heavy duty duct tape; good adhesion, strong backing. Silver.	9 mil	150°F (65°C)	Sealing heating ventilation and air conditioning ducts.	Meets:  HUD and BOCA
 Scotch® Heavy Duty All-Weather Duct Tape 2245	Resists harsh outdoor conditions and stays pliable.	9.5 mil	Up to 150°F (66°C)	Outdoor projects.	Meets:  HUD and BOCA

Specifications for Special Use Tapes

	Product Name	Product Description	Tape Thickness	Temp. Rating	Typical Applications	Specs./ Certifications and Listings
	Scotch® Professional HVAC Duct Tape 133DC	Aggressive adhesive for air and moisture, light industrial, and HVAC applications.	10 mil	200°F (93°C)	Wrapping pipes, sealing ducts, general repairs.	 Meets: HUD and BOCA
	3M™ Utility Duct Tape 2929	General use, quick easy tear.	6.0 mil	200°F (93°C)	Temporary repairs, light duty applications.	N/A
	3M™ Performance Plus Duct Tape 8979	6 month clean removal duct tape. Sunlight resistant, leaves behind no sticky residue.	12.6 mil	200°F (93°C)	Cap pipe ends and conduit stored outdoors. Hanging, sealing poly drapes.	 Meets: HUD and BOCA
	3M™ Performance Plus Duct Tape 8979N-Nuclear	6 month clean removal duct tape. Sunlight resistant, leaves behind no sticky residue.	12.6 mil	200°F (93°C)	Critical containment for utilities and nuclear power plants. Outdoor use, without deterioration up to 1 year.	Certified to meet low halogens and sulfur levels. ASME NQA-1, MIL-STD-2041D
	Scotch® Transparent Duct Tape 2120-A	Transparent, resistant to water and UV rays.	9 mil	173°F	Bundling, patching, sealing, general repairs.	N/A
	Scotch® Electricians Bundling Tape 2000	General purpose easy tear vinyl duct tape.	6 mil	N/A	General holding and bundling.	N/A
	3M™ Duct Tape 3900	Multipurpose duct tape. Available in seven colors for color-coding jobs.	7.7 mil	200°F (93°C)	Maintenance and repair, pulling wires through conduit.	 Meets: HUD and BOCA
	3M™ Cloth Gaffers Tape 6910	High tack, easy tear coated cloth tape.	12 mil	Up to 200°F (93°C)	Sealing and holding where minimum light reflection and glare are required.	N/A
	3M™ Outdoor Masking and Stucco Tape 5959	90-day clean removal. Indoor/Outdoor duct tape. Sunlight resistant, leaves behind no residue.	13 mil	Up to 200°F (93°C)	For masking stucco, eifs tile, brick, concrete, stonework and composites.	 Meets: HUD and BOCA
	3M™ Value Duct Tape 1900	Economical choice, quick easy tear.	6 mil	Up to 150°F (65°C)	For cost effective applications.	N/A
	3M™ Vinyl Duct Tape 3903	Low-medium adhesion for all-around jobs. Available in seven colors for color coding.	6.2 mil	Up to 250°F (121°C)	For all-around jobs.	N/A

Ordering Information for Special Use Tapes

Product Number	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
Scotch® Glass Cloth Electrical Tape 27 and 69				
27	15066	1/2" x 66' (13 mm x 20 m)	1/box, 10/ctn	50 rolls
27	15074	3/4" x 66' (19 mm x 20 m)	1/box, 10/ctn	50 rolls
27	27477	3/4" x 60 yd. (19 mm x 54.8 m)	N/A	12 rolls
27	10570	1" x 60 yd. (25 mm x 54.8 m)	N/A	9 rolls
27	27478	1-1/2" x 60 yd. (38 mm x 54.8 m)	N/A	24 rolls
69	10083	1/2" x 66' (13 mm x 20 m)	1/box, 10/ctn	50 rolls
69	27548	1/2" x 36 yd. (13 mm x 33 m)	N/A	18 rolls
69	09910	3/4" x 66' (19 mm x 20 m)	1/box, 10/ctn	50 rolls
69	27493	3/4" x 36 yd. (19 mm x 33 m)	N/A	12 rolls
69	27494	1" x 36 yd. (25 mm x 33 m)	N/A	9 rolls
Note: Only available sizes.				
Scotch® Thread Sealant and Lubricant Tape 48				
48	06192	1/4" x 260" (6,3 mm x 7 m)	N/A	12 rolls
48	06195	1/2" x 260" (13 mm x 7 m)	N/A	12 rolls
48	06196	1/2" x 520" (13 mm x 13 m)	N/A	12 rolls
48	27571	1/2" x 1296" (13 mm x 33 m)	N/A	12 rolls
Note: Other widths and lengths are available.				
Scotch® Performance Masking Tape 232				
232	02853*	3/4" x 60 yd. (18 mm x 54.8 m)	N/A	48 rolls
232	02854*	1" x 60 yd. (24 mm x 54.8 m)	N/A	36 rolls
232	04240*	2" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
Scotch® General Purpose Masking Tape 234				
234	02981*	3/4" x 60 yd. (18 mm x 54.8 m)	N/A	48 rolls
234	02982*	1" x 60 yd. (24 mm x 54.8 m)	N/A	36 rolls
234	04244*	2" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3M™ Paper Tape 200†				
200	53469††	1/2" x 60 yd. (12 mm x 54.8 m)	N/A	72 rolls
200	53464††	3/4" x 60 yd. (18 mm x 54.8 m)	N/A	48 rolls
200	53465††	1" x 60 yd. (24 mm x 54.8 m)	N/A	36 rolls
200	53470††	1-1/2" x 60 yd. (36 mm x 54.8 m)	N/A	24 rolls
200	53466††	2" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
200	53467††	3" x 60 yd. (72 mm x 54.8 m)	N/A	12 rolls
200	53468††	4" x 60 yd. (96 mm x 54.8 m)	N/A	8 rolls
3M™ Temflex™ Cotton Friction Tape 1755				
1755	50218	3/4" x 60' (19 mm x 18 m)	N/A	60 rolls

*UPC prefix 021200-

**UPC prefix 051131-

***UPC prefix 051115-

†Order product in metric units.

††UPC prefix 048011-

Ordering Information for Special Use Tapes

Product Number	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
1755	50216	3/4" x 82-1/2' (19 mm x 25 m)	N/A	60 rolls
1755	50217	1-1/2" x 82-1/2' (38 mm x 25 m)	N/A	30 rolls
3M™ Duct Tape 6969				
6969 Silver	06969**	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
6969 Silver	85635*	2.83" x 60 yd. (72 mm x 54.8 m)	N/A	12 rolls
3M™ Duct Tape 3939				
3939 Silver	85561*	.94" x 60 yd. (24 mm x 54.8 m)	N/A	36 rolls
3939 Silver	06975**	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3939 Silver	85562*	2.83" x 60 yd. (72 mm x 54.8 m)	N/A	12 rolls
3939 Silver	85563*	3.77" x 60 yd. (96 mm x 54.8 m)	N/A	12 rolls
Note: 3M Tartan Tape 3939 replaces 3M Temflex Tape 3930.				
Scotch® Heavy Duty All-Weather Duct Tape 2245				
	92040**	1.88" x 45 yd. (48 mm x 40 m)	N/A	12 rolls
Scotch® Professional HVAC Duct Tape 133DC†				
	50254**	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3M™ Outdoor Masking and Stucco Tape 5959				
	25491***	1.88" x 45 yd. (48 mm x 40 m)	N/A	12 rolls
3M™ Value Duct Tape 1900				
1900	23421***	1.88" x 50 yd. (48 mm x 45.7 m)	N/A	24 rolls
1900	23422***	2.83" x 50 yd. (72 mm x 45.7 m)	N/A	12 rolls
3M™ Vinyl Duct Tape 3903				
3903 Gray	06984**	1.97" x 50 yd. (50 mm x 45.7 m)	N/A	24 rolls
3903 Blue	06978**	1.97" x 50 yd. (50 mm x 45.7 m)	N/A	24 rolls
3903 Green	06986**	1.97" x 50 yd. (50 mm x 45.7 m)	N/A	24 rolls
3903 Yellow	06982**	1.97" x 50 yd. (50 mm x 45.7 m)	N/A	24 rolls
3903 White	06981**	1.97" x 50 yd. (50 mm x 45.7 m)	N/A	24 rolls
3903 Red	06992**	1.97" x 50 yd. (50 mm x 45.7 m)	N/A	24 rolls
3903 Black	06995**	1.97" x 50 yd. (50 mm x 45.7 m)	N/A	24 rolls
3M™ Utility Duct Tape 2929				
2929 Silver	24883***	1.88" x 50 yd. (48 mm x 45.7 m)	N/A	24 rolls
2929 Silver	24885***	2.83" x 50 yd. (72 mm x 45.7 m)	N/A	12 rolls
3M™ Performance Plus Duct Tape 8979				
8979 Slate Blue	53922††	.94" x 60 yd. (24 mm x 54.8 m)	N/A	48 rolls
8979 Slate Blue	56468*	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
8979 Slate Blue	53851††	1.88" x 25 yd. (48 mm x 22.8 m)	N/A	12 rolls
8979 Slate Blue	56469*	2.83" x 60 yd. (72 mm x 54.8 m)	N/A	12 rolls
8979 Slate Blue	56470*	3.77" x 60 yd. (96 mm x 54.8 m)	N/A	12 rolls
8979 Black	53918††	48" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls

*UPC prefix 021200-

**UPC prefix 051131-

***UPC prefix 051115-

†Order product in metric units.

††UPC prefix 048011-

Ordering Information for Special Use Tapes

Product Number	UPC (054007-)	Size	Inner Unit Pack	Case Qty.
3M[®] Performance Plus Duct Tape 8979-N Nuclear				
8979N-Nuclear Red	53914 ^{††}	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
8979N-Nuclear Red	53915 ^{††}	2.83" x 60 yd. (72 mm x 54.8 m)	N/A	12 rolls
Scotch[®] Transparent Duct Tape 2120-A	83260 ^{**}	1.88" x 20 yd. (48 mm x 18 m)	N/A	12 rolls
Scotch[®] Electricians Bundling Tape 2000	43403	2" x 50 yd. (51 mm x 46 m)	N/A	12 rolls
3M[®] Duct Tape 3900				
3900 Silver	06976 ^{**}	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3900 Black	49833 [*]	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3900 Olive	49831 [*]	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3900 Red	49830 [*]	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3900 White	49829 [*]	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3900 Yellow	49828 [*]	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3900 Blue	49832 [*]	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
3M[®] Cloth Gaffers Tape 6910				
6910 Black	06843 ^{**}	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls
6910 Silver	22782 [*]	1.88" x 60 yd. (48 mm x 54.8 m)	N/A	24 rolls

*UPC prefix 021200-

**UPC prefix 051131-

***UPC prefix 051115-

†Order product in metric units.

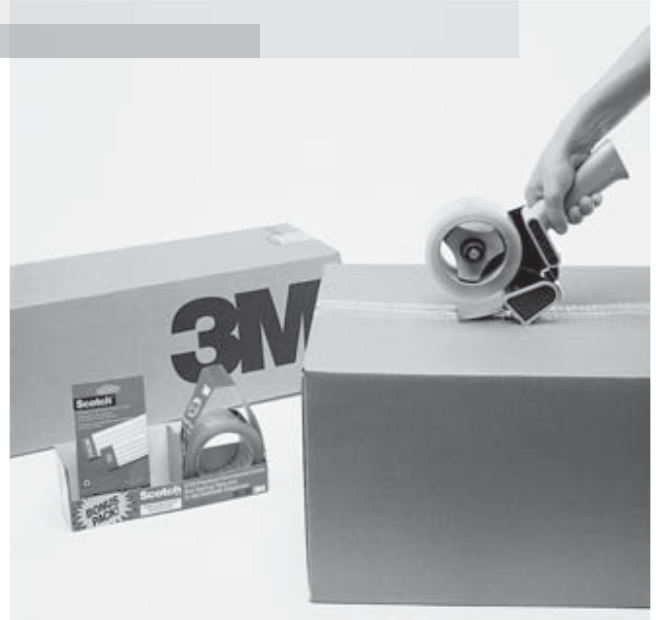
††UPC prefix 048011-

Packaging and Palletizing Tapes

Customers stick with 3M tape because they know they are buying the best for their money. Part of being the best is innovation and reliability. Take our Scotch® Box Sealing Tape 3750, as an example. Its innovative, high strength 3M™ Scotchpro™ backing provides superior performance. Our Scotch® Palletizing Tapes 8884 and 8886 reduce the material cost and volume required to bundle and unitize products compared to conventional alternatives.

3M has a wide line of Scotch® packing tapes for your needs, including label protection and pouch tapes.

Our 3M™ Highland™ and 3M Temflex™ brand packaging tapes are a general purpose alternative to the Scotch® brand line. 3M provides a wide range of tapes to meet our customers' needs.










Scotch® Superior Performance Box Sealing Tape 3750

SCOTCH® SUPERIOR PERFORMANCE BOX SEALING TAPE 3750

FEATURES	ADVANTAGES	BENEFITS
High quality, pressure sensitive adhesive	Superior quick stick and adhesion	Applies easily, saves time, reduces closure failures, helps assure safe delivery of product
High strength Scotchpro backing	User friendly	Reduces closure failures during shipping and storage. Efficient handling for manual application

Specifications for Box Sealing Tapes

Product Name	Product Description	Tape Thickness	Temp. Rating	Typical Applications
 Scotch® Premium Heavy Duty Box Sealing Tape 3750	Superior performance packaging tape used for heavy-duty packaging applications.	3.2 mils	short term: 151°F (65°C)	Single strip closure of regular slotted containers (RSCS)
 Scotch® Printed Box Sealing Tape 3732 and 3734	3732- "If Seal Is Broken Check" 3734- "Fragile Handle With Care" Tan with red printing.	N/A	N/A	Box sealing with warnings
 3M Highland™ Commercial Box Sealing Tape 3710	Commercial grade box sealing tape.	2 mil	short term: 151°F (65°C)	General purpose closure of regular slotted containers (RSCS)
 Scotch® Box Sealing Hand Dispensers H-122	Box sealing hand dispensers	N/A	N/A	Box sealing
 Scotch® Series Printed Box Sealing Tape 3770	3771- "If Seal Is Broken Check Contents Before Accepting" 3772- "Fragile Handle with Care" 3773- "Rush, Rush, Rush" 3775- "Mixed Merchandise"	1.9 mil	N/A	General purpose box sealing and identification
 Scotch® Box Sealing Tape 371	Industrial packaging tape	1.9 mil	N/A	Box sealing, splicing and recoverage
 Scotch® Box Sealing Roll-on Dispensers H-180	Box sealing Roll-on dispensers	N/A	N/A	Box sealing

Ordering Information for Box Sealing Tapes




Product Number	UPC (021200-)	Size	Inner Unit Pack	Case Qty.
Scotch® Premium Heavy Duty Box Sealing Tape 3750				
3750 Clear	06640*	1-4/5" x 54 yd. (48 mm x 50 m)	6/pack	36 rolls
3750 Tan	72439	1-4/5" x 54 yd. (48 mm x 50 m)	1/pack	12 packs
3750 Clear	72441	1-4/5" x 54 yd. (48 mm x 50 m)	1/pack	36 packs
Scotch® Printed Box Sealing Tape 3732 and 3734				
3732	72415*	1-4/5" x 109 yd. (48 mm x 100 m)	N/A	36 rolls
3734	72417*	1-4/5" x 109 yd. (48 mm x 100 m)	N/A	36 rolls
3M® Highland™ Commercial Box Sealing Tape 3710				
3710 Tan	14765	1-4/5" x 54 yd. (48 mm x 50 m)	N/A	36 rolls
3710 Clear	14766	1-4/5" x 54 yd. (48 mm x 50 m)	N/A	36 rolls
3710 Clear	18813	1-4/5" x 109 yd. (48 mm x 100 m)	N/A	36 rolls
Scotch® Box Sealing Hand Dispensers H-122				
H-122	06925	2" (50,8 mm)	1 each	6 dispensers

*UPC prefix 051131-

Ordering Information for Box Sealing Tapes

Product Number	UPC (021200-)	Size	Inner Unit Pack	Case Qty.
Scotch® Series Printed Box Sealing Tape 3770				
3771 (red on white)	72301	1-9/10" x 104 yd. (48 mm x 100 m)	N/A	36 rolls
3772 (red on white)	72304	1-9/10" x 104 yd. (48 mm x 100 m)	N/A	36 rolls
3773 (red on white)	72307	1-9/10" x 104 yd. (48 mm x 100 m)	N/A	36 rolls
3775 (red on white)	72458	1-9/10" x 104 yd. (48 mm x 100 m)	N/A	36 rolls
Scotch® Box Sealing Tape 371				
371(Clear)	19279	2-4/5" x 54.6 yd. (72 mm x 50 mm)	N/A	24 rolls
371(Clear)	19280	2-4/5" x 109.3 yd. (72 mm x 100 mm)	N/A	24 rolls
371(Tan)	18197	2-4/5" x 54.6 yd. (72 mm x 50 mm)	N/A	24 rolls
371(Tan)	61525	2-4/5" x 109.3 yd. (72 mm x 100 mm)	N/A	24 rolls
Scotch® Box Sealing Roll-on Dispensers H-180				
H-180	19008	50,8 mm (2")	1 each	6 dispensers




Specifications for Filament Tapes

Product Name	Product Description	Tape Thickness	Temp. Rating	Typical Applications
 Scotch® Industrial Grade Filament Tape 893	Industrial grade filament and packaging tape that is abrasion and moisture resistant.	6 mil	short term: 151°F (65°C)	High performance and long-term adhesion for strapping and reinforcing
 Scotch® Commercial Grade Filament Tape 897	Commercial grade filament tape with synthetic rubber resin adhesive.	6 mil	120°F (50°C)	General purpose, bundling and reinforcing
 Scotch® Filament Tape Dispensers H-10	Filament Tape dispensers	N/A	N/A	Bundling and reinforcing

Ordering Information for Filament Tapes

Product Number	UPC (021200-)	Size	Inner Unit Pack	Case Qty.
Scotch® Industrial Grade Filament Tape 893[†]				
893	06937*	1/2" x 60 yd. (13 mm x 55 m)	N/A	72 rolls
893	06938*	3/4" x 60 yd. (19 mm x 55 m)	N/A	48 rolls
893	06939*	1" x 60 yd. (25 mm x 55 m)	N/A	36 rolls
Scotch® Commercial Grade Filament Tape 897[†]				
897	86523	1/2" x 60 yd. (13 mm x 55 m)	N/A	72 rolls
897	86524	3/4" x 60 yd. (19 mm x 55 m)	N/A	48 rolls
897	86525	1" x 60 yd. (25 mm x 55 m)	N/A	36 rolls
Scotch® Filament Tape Dispenser H-10	06910	1" (25 mm)	1 each	6 dispensers
*UPC prefix 051131-				
[†] Order product in metric units.				

Specifications for Label Protection Tapes

Product Name	Product Description	Tape Thickness	Temp. Rating	Typical Applications
 Scotch® Film Tape 8210	Lightly pink tinted label	2.5 mil	N/A	Protect label from abrasions and moisture, but allow barcode scanning
 Scotch® Pouch Tape 8240	Pressure sensitive tape with rectangular window and orange border	2.5 mil	N/A	Display documents on the exterior of package for easy viewing by recipient
 Scotch® Commercial Label Protection Tape 3565	Utility grade label protection tape	1.9 mil	N/A	To protect and preserve identification labels in shipping

Ordering Information for Label Protection Tapes

Product Name	UPC (021200-)	Size	Inner Unit Pack	Case Qty.
Scotch® Film Tape 8210	06888	4" x 72 yd. (10 cm x 66 m)	N/A	8 rolls
Scotch® Pouch Tape 8240	06947	5" x 6" (13 cm x 15 cm)	N/A	8 rolls
Scotch® Commercial Label Protection Tape 3565	73154	3-7/10" x 104 yd. (96 mm x 95 m)	N/A	18 rolls

Specifications for Palletizing Tapes

Product Name	Product Description	Tape Thickness	Temp. Rating	Typical Applications
 Scotch® Stretchable Tape 8884 and 8886	High performance transparent stretchable tape	8884 - 5 mil 8886 - 7 mil	N/A	Encasing A and B type pallets for internal shipping

Ordering Information for Palletizing Tapes

Product Number	UPC (021200-)	Size	Inner Unit Pack	Case Qty.
Scotch® Stretchable Tape 8884	69313	1-3/10" x 60 yd. (36 mm x 55 m)	N/A	24 rolls
Scotch® Stretchable Tape 8886	69314	1-3/10" x 60 yd. (36 mm x 55 m)	N/A	24 rolls

Wire Connectors

Spring Connectors and Tools	32
Crimp Sleeve Connectors	37
Insulation Displacement Connectors and Tools	38
Scotchlok Connectors and Tools	42
Moisture Guard Connector	46



3M™ Scotchlok™ 557 IDC Connector

The best connectors do more than fit the application; they also fit your hand, and they feel good to use. At 3M, we design connectors that are as comfortable and easy to use as they are dependable.

Our complete line provides a wide range of connector choices. Simply choose the connector that fits your personal preference, as well as the application. We give you plenty of choices.

Start with the unique 3M™ Performance Plus Wire Connectors. See just how easy it is to work with three sizes instead of seven and still cover the entire 600-volt copper wire range. The 3M Scotchlok™ connectors are our original color-coded line of wire connectors designed with



3M™ O/B+ Connector

the exact features requested most by electricians. 3M wire connectors are durable for regular or low-voltage systems in construction, industrial, maintenance, OEM or irrigation. 3M Highland™ wire connectors offer an affordable alternative with no compromise to quality.

It's all here—right at your fingertips—with 3M's family of easy-to-use, versatile and highly reliable wire connectors.

Quick, reliable splices are a snap and a squeeze

For over 50 years, 3M has been designing connectors with the reliability and ease of installation that electricians demand. From the very first Scotchlok insulation displacement connector (IDC) to today's improved models, 3M has always provided connection technology that saves time and money.

The latest series of IDCs has kept all that was good about the original connector—the design, the shape, the element technology and the color-coding.

Choose from 38 different 3M IDCs that meet a variety of uses, including fluorescent ballast installation and replacement, fixture and appliance wiring, automotive and marine wiring and control circuit wiring. Whatever the application, 3M has the connector to make your job easier.

Spring Connectors and Tools

3M™ Performance Plus Wire Connectors (T/R+, T/Y+, O/B+, R/Y+, B/G+)

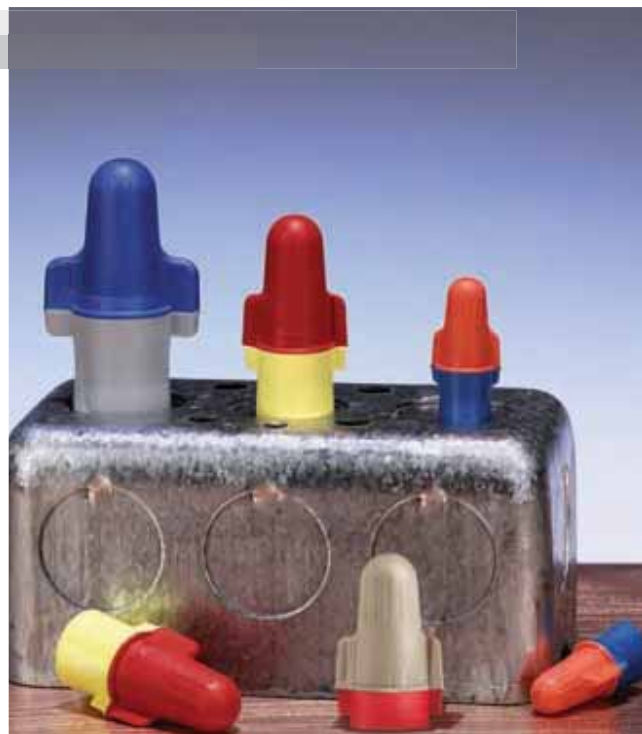
Because of their increased wire range, just four Performance Plus Wire Connectors handle the work of seven standard connectors. T/R+ replaces the yellow, tan and red connectors in the majority of field applications. T/Y+ replaces the yellow, orange, blue and gray wire nuts in most applications. O/B+ replaces the orange, blue and gray wire connector style connectors, as well as 70% of the yellow wire connector and wing style connectors. R/Y+ replaces both red and yellow wing style connectors. B/G+ covers both the large blue and gray connectors. This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

3M™ Scotchlok™ Electrical Spring Connectors Y, R, G and B

3M Scotchlok Electrical Spring Connectors Y, R, G and B are the original color-coded wire connectors with a unique soft shell that is easy on the fingers. They're flexible, yet durable, and provide a compact, fully insulated connection that won't cut or abrade wires. Their torque fins are engineered to provide a comfortable and secure grip, which makes installation fast and back-off easy.



3M™ Scotchlok™ Electrical Spring Connectors



3M™ Performance Plus Wire Connectors

3M™ Electrical Spring and Grounding Connectors 312, 412, 512 and 512G

The quick-spin, wing-torque design of Electrical Spring and Grounding Connectors 312, 412 and 512 is easy on your fingers. The day's last connection will feel almost as good as the first. Generous expansion room accommodates a wide range of solid or stranded wire. Use the 312 (yellow) connector for wire combinations from 3 #20 to 3 #12 AWG, the 412 (tan) connector for 2 #20 to 3 #10 AWG and the 512 (red) connector for 2 #18 to 5 #12 AWG. The 512G (green) is used for grounding connections.



3M™ Electrical Spring and Grounding Connectors

3M™ Highland™ Wire Connectors

3M Highland Wire Connectors make it quick and easy to match the right connector to the size of the wire.

The shells are designed to withstand temperatures up to 221°F (105°C). Highland color-coded wire connectors are UL Listed, CSA Certified, and work equally well with either solid or stranded wire.



3M™ Highland™ Wire Connectors

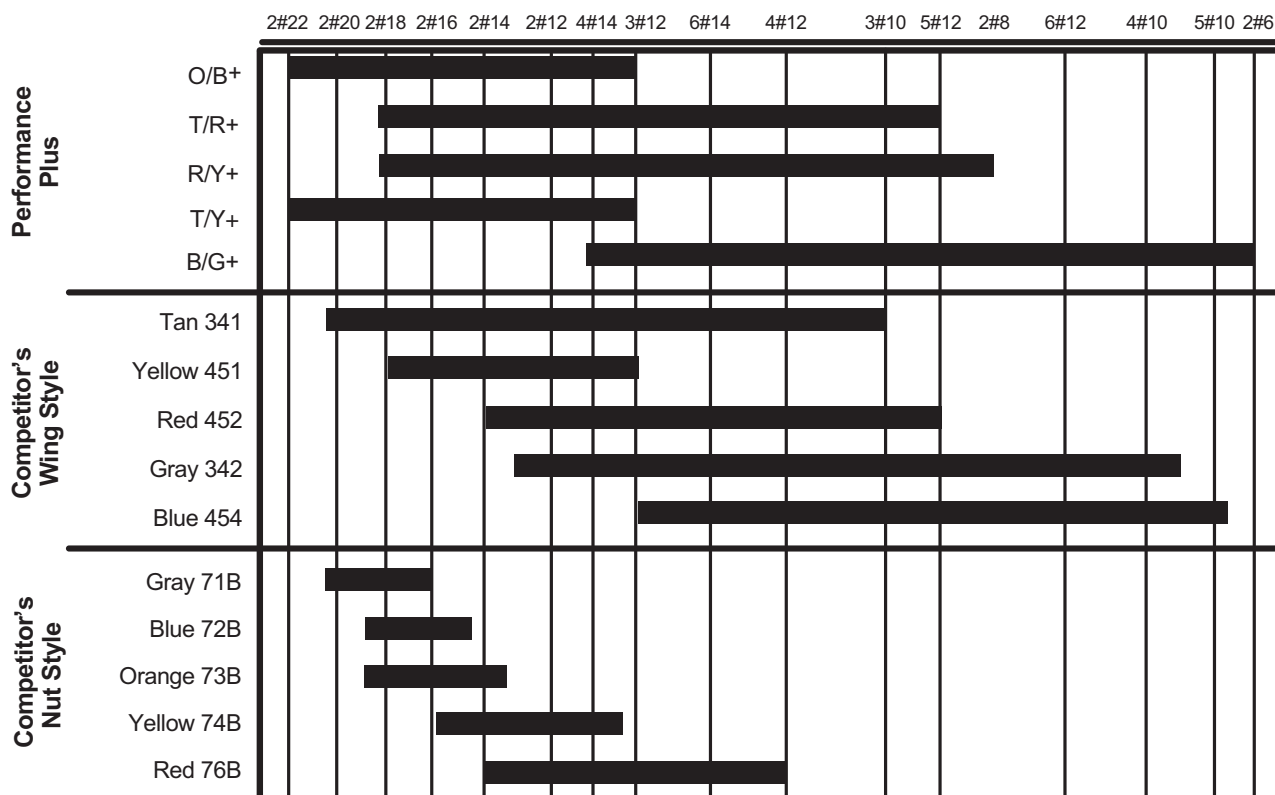
3M™ Wire Connector Drivers WCD

These application tools for 3M Performance Plus O/B+, R/Y+, T/R+ and T/Y+; 3M 212, 312, and 512; and 3M Scotchlok™ Y, R, and G connectors quickly spin on the connector and position the wire bundle in the box. The WCD-H is a hand driver and the WCD-P is a power driver that fits a standard chuck.



3M™ Wire Connector Drivers WCD

Wire Range for 3M Performance Plus Wire Connectors












SPRING CONNECTORS

FEATURES	ADVANTAGES	BENEFITS
3M PERFORMANCE PLUS WIRE CONNECTORS (T/R+, T/Y+, O/B+, R/Y+, B/G+)		
Wires feed deeper	Increases level of pull-out	Security
Wide wire ranges	Three connectors replace seven	Saves money and time
Flexible skirt	Covers overstripped wires	Safety
New internal design	Smoother and faster installation	Improves quality and saves time
3M SCOTCHLOK ELECTRICAL SPRING CONNECTORS (Y, R, G, B)		
Soft outer shell	Easy on the fingers	Easy to use
Steel inner shell	No wire poke-through	Safety
Compact design	Fit into tight places	Easy to use
Able to back off	Rewire if needed	Saves time
3M ELECTRICAL SPRING AND GROUNDING CONNECTORS (312, 412, 512, 512G)		
Hard shell	Easy to grip	Easy to use
Wings	Easy to turn	Easy to use
3M HIGHLAND™ WIRE CONNECTORS (H-29, H-30, H-31, H-33, H-35)		
Low price	Economical	Save money

Specifications for Spring Connectors

Connector	Features/Description	Maximum Voltage Rating	Wire Range* AWG (mm ²)	Temp. Rating	UL, CSA or CE Certified	Tools
3M™ Connector O/B+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#22-3#12 3#14 (1,0 mm ² -5,0 mm ²)	221°F (105°C)	UL SP CE [†]	WCD-P WCD-H
3M™ Connector T/R+	Quick bite, compact size wide wire range	600V (1000V in signs, lighting fixtures and luminaries)	up to 5#12s (2,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE [†]	WCD-P WCD-H
3M™ Connector R/Y+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#18-2#8 5#12 (2,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE [†]	WCD-P WCD-H
3M™ Connector T/Y+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	2#22-3#12 3#14 (1,0 mm ² -5,0 mm ²)	221°F (105°C)	UL SP CE [†]	WCD-P WCD-H
3M™ Connector B/G+	Flexible skirt w/square wire	600V (1000V in signs, lighting fixtures and luminaries)	4#14-2#6-3#8 (10,0 mm ² -31,6 mm ²)	221°F (105°C)	UL SP CE [†]	—
3M™ Scotchlok™ Connector R	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	9#18, 4-6#16, 2-5#14, 2-5#12, 1-3#10 (5,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SP CE [†]	WCD-P WCD-H
3M™ Scotchlok™ Connector Y	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	5-8#22, 4-6#20, 2-5#18, 2-3#16, 1-3#14, 1-2#12, 1#10 (2,0 mm ² -17,5 mm ²)	221°F (105°C)	UL SP CE [†]	WCD-P WCD-H
3M™ Scotchlok™ Connector B	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	3-6#12, 2-6#10, 2-3#8, 1-2#6 stranded (12,0 mm ² -36,0 mm ²)	221°F (105°C)	UL SP CE [†]	—
3M™ Scotchlok™ Connector G	Insulated w/vinyl skirt and live spring and steel shell	600V (1000V in signs, lighting fixtures and luminaries)	3-7#14, 2-6#12, 2-4#10, 2#8 (8,0 mm ² -24,0 mm ²)	221°F (105°C)	UL SP CE [†]	WCD-P WCD-H

Specifications for Spring Connectors

Connector	Features/Description	Maximum Voltage Rating	Wire Range* AWG (mm ²)	Temp. Rating	UL, CSA or CE Certified	Tools
 3M™ Connector 312	Nylon insulated w/live spring	600V (1000V in signs, lighting fixtures and luminaries)	5-7#22, 3-6#20, 2-6#18 2-6#16, 1-4#14, 1-3#12 (1,5 mm ² -10,0 mm ²)	221°F (105°C)	UL SF [†]	WCD-P WCD-H
 3M™ Connector 412	Nylon insulated w/live spring	600V (1000V in signs, lighting fixtures and luminaries)	5-7#22, 3-6#20, 2-6#18 2-6#16, 1-4#14, 1-4#12 (1,5 mm ² -10,0 mm ²)	221°F (105°C)	UL SF [†]	WCD-P WCD-H
 3M™ Connector 512	Nylon insulated w/live spring	600V (1000V in signs, lighting fixtures and luminaries)	2-10#18, 2-7#16, 1-6#14, 1-5#12, 1-3#10, 1-2#8, 1#6 (2,0 mm ² -16,0 mm ²)	221°F (105°C)	UL SF [†]	WCD-P WCD-H
 3M™ Connector 512G	Nylon insulated grounding connector	600V (1000V in signs, lighting fixtures and luminaries)	2-5#14, 2-5#12, 2-3#10, 1#14 w/1-4#12, 2#14 w/ 1-3#12, 3#14 w/2 or 3 #12, 4#14 w/1#12, 1#14 w/1- 3#10, 2#14 w/1 or 2#10, 3#14 w/1#10, 1#12 w/1 or 2#10, 2#12 w/1#10 (4,0 mm ² -15,0 mm ²)	221°F (105°C)	UL SF [†]	—
 3M Highland™ Connector H-29	Round wire spring	300V	22-16 AWG [Two 22 AWG/One 20 AWG Min.] [Two 16 AWG Max.] (1,5 mm ² -2,5 mm ²)	221°F (105°C)	UL SF	—
 3M Highland™ Connector H-30	Round wire spring	300V	22-16 AWG [Two 22 AWG Min.] [Three 16 AWG Max.] (1,5 mm ² -3,0 mm ²)	221°F (105°C)	UL SF	—
 3M Highland™ Connector H-31	Round wire spring	600V (1000V in signs, lighting fixtures and luminaries) Depending upon combinations	18-14 AWG [Two 18 AWG Min.] [Two 14 AWG Max.] (2,0 mm ² -4,0 mm ²)	221°F (105°C)	UL SF	—
 3M Highland™ Connector H-33	Round wire spring	600V (1000V in signs, lighting fixtures and luminaries) Depending upon combinations	18-12 AWG [Three 18 AWG Min.] [Three 14 AWG Max.] (2,0 mm ² -0,5 mm ²)	221°F (105°C)	UL SF	—
 3M Highland™ Connector H-35	Round wire spring	600V (1000V in signs, lighting fixtures and luminaries) Depending upon combinations	18-10 AWG [Three 18 AWG Min.] [Two #10 AWG Max.] (2,5 mm ² -16,0 mm ²)	221°F (105°C)	UL SF	—

*For information on additional Cu wire connections, refer to package or consult 3M technical service.

† UL Listed E23438 and CSA Certified LR15503

Ordering Information for Spring Connectors

Connector	UPC (054007-)	Inner Unit Pack	Case Qty. (connectors) Distributor Order Qty.
3M™ Connector O/B+	43152	100/box	1,000 box
	43153	500/jug	10,000 container
3M™ Connector T/R+	54454*	100/box	1,000 box
	54455*	750/jug	6,000 jug
	54456*	N/A	25,000 keg
3M™ Connector R/Y+	43154	100/box	1,000 box
	43155	500/jug	4,000 container
3M™ Connector T/Y+	55218*	100/box	1,000 box
	55219*	500/jug	10,000 container
3M™ Connector B/G+	43150	50/box	500 box
	43151	250/jug	2,000 container

*UPC prefix 051128-

Ordering Information for Spring Connectors

Connector	UPC (054007-)	Inner Unit Pack	Case Qty. (connectors) Distributor Order Qty.
3M™ Scotchlok™ Connector R	20058	100/box	1,000 box
	70489	500/bag	5,000 bag
3M™ Scotchlok™ Connector Y	20041	100/box	1,000 box
	15769	500/bag	10,000 bag
3M™ Scotchlok™ Connector B	42033	50/box	500 box
3M™ Scotchlok™ Connector G	21346	100/box	1,000 box
	70488	500/bag	2,500 bag
3M™ Connector 312 (Yellow)	08159	100/box	1,000 box
	08160	500/bag	10,000 bag
	53952*	500/jug	10,000 case
3M™ Connector 412 (Tan)	54451*	100/box	1,000 box
	54452*	500/bag	10,000 bag
	54453*	20,000/keg	20,000 keg
	55695*	500/jug	4,000 box
3M™ Connector 512 (Red)	08161	100/box	1,000 box
	08162	500/bag	10,000 bag
	53953*	250/jug	5,000 case
3M™ Connector 512G (Green)	49950	50/box	500 box
	50232	500/bag	10,000 bag
3M Highland™ Connector H-29 (Gray)	43133	100/box	1,000 box
	43134	N/A	1,000 bin
	43135	N/A	25,000 keg (loose)
3M Highland™ Connector H-30 (Blue)	43122	100/box	1,000 box
	43123	N/A	1,000 bin
	43124	N/A	10,000 keg (loose)
3M Highland™ Connector H-31 (Orange)	43117	100/box	1,000 box
	43118	500/bag	10,000 bulk
	43119	N/A	1,000 bin
	43120	N/A	10,000 keg
3M Highland™ Connector H-33 (Yellow)	43136	100/bag	1,000 bag
	43137	N/A	1,000 bin
	43138	500/bag	5,000 bag
	43139	N/A	5,000 keg
3M Highland™ Connector H-35 (Red)	43140	100/box	1,000 box
	43141	N/A	1,000 bulk
	43142	250/bag	2,500 bag

*UPC prefix 051128-

Specifications and Ordering Information for Application Tools

Product Number	Description	Application	UPC (054007-)	Inner Unit Pack	Case Qty.
WCD-P	Power driver for wire connectors	Tools for 3M O/B+, R/Y+, 3M Scotchlok Y, R, G and 3M 212, 312, and 512.	49919	N/A	10
WCD-H	Hand driver for wire connectors	Tools for 3M O/B+, R/Y+, 3M Scotchlok Y, R, G and 3M 212, 312, and 512.	49948	N/A	10

Crimp Sleeve Connectors

3M™ Scotchlok™ Insulated Electrical Crimp Sleeve Connectors S-11 and S-31

UL Listed and CSA Certified, 3M Scotchlok electrical crimp sleeve connectors make fast work of splicing 22 to 10 AWG copper conductors. Smooth flared entry makes wire insertion fast—simply twist conductors together and crimp. The S-11 and S-31 (copper), and MN14CEC/ST and MN10CEC/ST (steel) are insulated, closed-end crimp sleeve connectors. With a rugged, yet resilient nylon insulator, use these connectors in light fixtures, appliances and other electrical OEM applications.



Specifications for Nylon Insulated Closed End Connectors (Copper Insert)



Product Number	UPC (054007-)	Wire Range (AWG)	Copper Wire Combinations	L	Barrel Length	Barrel I.D.
S-11 (copper)*	16733 bulk	22-14	See chart below.	0.76	0.31	0.091
	16732 boxed	22-14	See chart below.	0.76	0.31	0.091
S-31 (copper)*	16735 bulk	18-10	See chart below.	0.85	0.34	0.152
	16734 boxed	18-10	See chart below.	0.85	0.34	0.152

*UL Listed and CSA Certified for use with TH-440 and TH-450 Crimping Tools.

Specifications for Crimp Sleeve Connectors (Nylon Insulated)



Product Number	UPC (054007-)	Maximum Voltage Rating*	AWG (mm ²) Wire Range O.D.*	Temperature Rating	Inner Unit Pack	Case Qty.
S-11	16732	600V	2#22, 2#18, 2#16 stranded (0,6–2,6 mm ²)	221°F (105°C)	100/box	1,000
	16733	600V	2#22, 2#18, 2#16 stranded (0,6–2,6 mm ²)	221°F (105°C)	1,000/bag	10,000
S-31	16734	600V	2#18, 3#14 (1,6–6,6 mm ²)	221°F (105°C)	50/box	500
	16735	600V	2#18, 3#14 (1,6–6,6 mm ²)	221°F (105°C)	500/bag	5,000

*1000V for signs, lighting fixtures and luminaries.
Note: See package for complete wire listings.



S-11



S-31

Insulation Displacement Connectors and Tools

3M™ Scotchlok™ IDC Connectors for Electrical Applications



The latest series of 3M Scotchlok Insulation Displacement Connectors (IDCs) has kept all that was good about the original connector—the design, the shape, the element technology and the color-coding. Each model, however, also incorporates a full wire range capability, an increased port size that accommodates up to 0.155" (4,0 mm) insulation sizes, double “U” elements and a solvent-resistant plastic construction. Choose from 38 different 3M IDCs to meet a variety of uses, including fluorescent ballast installation and replacement, fixture and appliance wiring, automotive and marine wiring, and control circuit wiring.

3M™ Scotchlok™ IDC Connectors for Communication Applications



Over 30 years ago, 3M introduced the industry’s original U element connector, the 3M Scotchlok Connector UR.

The latest series of connectors—the 3M Scotchlok connectors UR2, UY2 and UB2A—features that same originality in technological advantages, building on the successful Scotchlok connector’s design, shape, color-coded cap concepts and element technology. The Series 2 connectors additionally offer full wire range capability, increased port size to accommodate up to 0.082" (2,08 mm) insulation sizes, double elements in all products and a solvent-resistant plastic construction.

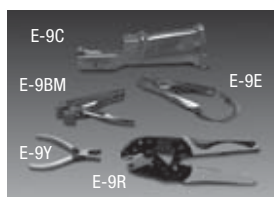
3M™ Crimping Tools E-9BM, E-9C, E-9E, E-9Y and E-9R

The 3M Crimping Tool E-9BM is used with most Scotchlok connectors, and has parallel closing action



with adjustable jaws and a high mechanical advantage. The 3M Cartridge Tool E-9C with Case holds connectors (in cartridges) firmly in place, allowing the craftsperson use of the other

hand for guiding wires. A time saving tool, the E-9C tool holds cartridges of UR2, UR, UY2, UY, or UAL connectors. The Crimping Tool E-9E is a parallel closing-action tool for use with Scotchlok butt and tap connectors. The Crimping Tool’s E-9Y stepped jaws and long nose provide parallel crimping action. Its features include a side wire cutter, cushioned handles and a return spring. The Crimping Tool E-9R features single-stroke, parallel crimping action with a work-saving 10:1 mechanical



advantage over applied hand force. The tool’s innovative ratchet-release design indicates a positive crimp by automatically releasing after each successful connection.

The E-9R tool is compatible with all 3M™ Scotchlok™ Connectors including UY, UR, UY2, UR2, UP2, UAL, UP3, UB, 211 and UB2A units across the entire range of applicable wire sizes.

INSULATION DISPLACEMENT CONNECTORS

FEATURES	ADVANTAGES	BENEFITS
Squeeze-shut connector	No wire stripping or twisting	Saves time
Crimp with slip-joint pliers	No special tools required	Saves money
Unique "U" contact, fully insulated	Provides dependable connections	Safety
No need to cut run wire	Faster installation, minimum clean-up	Saves time
No need to twist on	Easy on hands	Easy to use



CONNECTING TIPS

Quick, reliable splices are a squeeze. And a snap.



- 3M Scotchlok Insulation Displacement Connectors (IDCs) are easy to use and save time—to install one, just squeeze—no stripping or twisting. Our unique "U" contact provides a dependable electrical connection.
- A "live-spring" joint is made by driving the "U" contact down into the connector.
 - As the "U" contact is pressed into the connector, it grasps the conductors as it displaces the insulation.
 - Contact grips the conductor and holds with a firm, resilient pressure.

Specifications for 3M™ Scotchlok™ Insulation Displacement Connectors












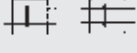










Connector	Type Connection	Features/Description	Maximum Insulation O.D. in. (mm)	Wire Range AWG (mm²)	Operating Temperature	UL, CSA or CE Certified	Suggested 3M Tools/Mate
314*		Moisture-resistant seal Flame retardant	0.155" (3,9 mm)	22-14 (0,5-1,5 mm²) Solid/Stranded	221°F (105°C)	††	E-9BM
314U*		Dry environment applications Flame retardant	0.155" (3,9 mm)	22-14 (0,5-1,5 mm²) Solid/Stranded	221°F (105°C)	††	E-9BM
316IR		Moisture-resistant applications	0.155" (3,9 mm)	22-16 (0,5-1,0 mm²) Solid/Stranded	221°F (105°C)	N/A	E-9BM
557		Dual element connection Flame retardant	0.120" (3,05 mm)	22-16 (0,5-1,5 mm²) Solid/Stranded	221°F (105°C)	††	E-9BM
558		Flame retardant	0.120" (3,05 mm)	22-16 (0,5-1,5 mm²) Solid/Stranded	221°F (105°C)	††	E-9BM
560		Flame retardant	0.145" (3,68 mm)	18-16 (0,75-1,0 mm²) Solid/Stranded 14 (1,5 mm²) Stranded	221°F (105°C)	††	E-9BM
560B		Run and tap Splicing Flame retardant	0.145" (3,68 mm)	18-16 (0,75-1,0 mm²) Solid/Stranded 14 (1,5 mm²) Stranded	194°F (90°C)	††	E-9BM
560N		Flame retardant	0.145" (3,68 mm)	18-16 (0,75-1,0 mm²) Solid/Stranded 14 (1,5 mm²) Stranded	221°F (105°C)	††	E-9BM
562		Run and tap Splicing Flame retardant	0.190" (4,82 mm)	12 (2,5 mm²) Solid/Stranded 10 (4,0 mm²) Stranded	194°F (90°C)	††	E-9BM

* Also tested in accordance with UL Standard for Portable Electric Lamps, UL 153, Section 15 when housed within the body of the lamp.

† UL Listed 70512 and/or CSA Certified LR15503

†† UL Listed 23438 and/or CSA Certified LR15503

Specifications for 3M™ Scotchlok™ Insulation Displacement Connectors

Connector	Type Connection	Features/Description	Maximum Insulation O.D. in. (mm)	Wire Range AWG (mm ²)	Operating Temperature	UL, CSA or CE Certified	Suggested 3M Tools/Mate	
	564		Double Run	0.145" (3,68 mm)	18-14 (0,75-1,5 mm ²) Solid/Stranded	194°F (90°C)	CE	E-9BM
	567		Dual element connection Flame retardant	0.145" (3,68 mm) Tap 0.190" (4,82 mm) Run	18-14 (0,75-1,5 mm ²) Tap 12-10 (2,5-4,0 mm ²) Run Solid/Stranded	221°F (105°C)	UL SF CE ^{††}	E-9BM
	804		Moisture-resistant applications Flame retardant	0.145" (3,68 mm)	18-16 (0,75-1,5 mm ²) Solid/Stranded 14 (1,5 mm ²) Stranded	167°F (75°C)	UL ^{††}	E-9BM
	804U		Run & Tap Flame retardant	0.145" (3,68 mm)	18-16 (0,75-1,5 mm ²) Solid/Stranded 14 (1,5 mm ²) Stranded	167°F (75°C)	UL ^{††}	E-9BM
	901		Disconnect	0.145" (3,68 mm)	18-14 (0,75-1,5 mm ²) Solid/Stranded	194°F (90°C)	N/A	E-9BM MNG14-156DM
	905		Low voltage (automotive) applications	0.110" (2,79 mm) Tap 0.145" (3,68 mm) Run	22-18 (0,5-0,75 mm ²) Tap 18-14 (0,75-1,5 mm ²) Run Solid/Stranded	194°F (90°C)	CE	E-9BM
	905N		Low voltage (automotive) applications	0.110" (2,79 mm) Tap 0.145" (3,68 mm) Run	22-18 (0,5-0,75 mm ²) Tap 18-14 (0,75-1,5 mm ²) Run Solid/Stranded	194°F (90°C)	N/A	E-9BM
	951		T-tap disconnect Flame retardant	0.150" (3,81 mm)	22-18 (0,5-0,75 mm ²) Solid/Stranded	221°F (105°C)	UL SF ^{††}	E-9BM Mate: 0.250" male tab MNG18-250 DMI
	952		T-tap disconnect Flame retardant	0.150" (3,81 mm)	18-14 (0,75-1,5 mm ²) Solid/Stranded	221°F (105°C)	UL SF [†]	E-9BM Mate: 0.250" male tab MNG14-250 DMI
	953		T-tap disconnect Flame retardant	0.150" (3,81 mm)	12 (3,0 mm ²) Solid/Stranded	221°F (105°C)	UL SF [†]	E-9BM Mate: 0.250" male tab MNG10-250 DMI
	972		Auto fuse holder	0.150" (3,81 mm)	18-14 (0,75-1,5) Solid/Stranded	194°F (90°C)	N/A	E-9BM

* Also tested in accordance with UL Standard for Portable Electric Lamps, UL 153, Section 15 when housed within the body of the lamp.

† UL Listed 70512 and/or CSA Certified LR15503

†† UL Listed 23438 and/or CSA Certified LR15503

Ordering Information for 3M™ Scotchlok™ Insulation Displacement Connectors

Product Number	UPC (054007-)	Inner Unit Pack	Case Qty.
314	09230	50/box	500 box
	09231	N/A	1,000 bin
314U	09232	50/box	500 box
	09233	N/A	1,000 bin
316IR	50419	30/bag	300 bulk
557	21494	100/box	1,000 box
	21502	500/bag	5,000 bulk
558	14861	100/box	1,000 box
	14879	N/A	5,000 bulk
560	00839	100/box	1,000 box
	00840	500/bag	5,000 bulk
560B	20090	100/box	1,000 box
	20181	500/bag	5,000 bulk
560N	09513	500/bag	5,000 bulk
562	11032	100/box	1,000 box
	11040	N/A	1,000 bin
564	06118	500/bag	5,000 bulk
567	14887	100/box	1,000 box
	14895	—	1,000 bin
804	06134	25/box	250 box
	06135	500/bag	5,000 bulk
	50187	50/bag	1,000 bulk
	50188	N/A	1,000 bulk
804U	50767	500/bag	5,000 bulk
901	06106	50/box	500 box
	06107	500/bag	5,000 bulk
905	06128	N/A	10,000 box
	06129	N/A	1,000 bulk
905N	06124	N/A	1,000 bulk
951	12312	50/box	500 box
	12313	—	1,000 bin
952	08427	50/box	500 box
	08428	—	1,000 bin
953	12314	50/box	500 box
	12315	—	1,000 bin
972	06171	25/box	250 box
	06172	—	1,000 bin

Specifications for 3M™ Scotchlok™ Connectors and Tools

Connector	Type Connector	Special Features	Maximum Insulation O.D.		PIC-unfilled and PIC-filled		Pulp or Paper	
			Metric (mm)	Inches	AWG	Metric (mm)	AWG	Metric (mm)
UR2 		Gel-Filled Polypropylene Cat.5	2,08 mm	0.082"	26-19	0,4-0,9 mm	N/A	N/A
UR2-D 		Dry Polypropylene	2,08 mm	0.082"	26-19	0,4-0,9 mm	26-19	0,4-0,9 mm
UR 		Gel-Filled Polycarbonate Cat. 5	1,52 mm	0.060"	26-19	0,4-0,9 mm	N/A	N/A
UY2 		Gel-Filled Polypropylene Cat.5	2,08 mm	0.082"	26-19	0,4-0,9 mm	N/A	N/A
UY2-D 		Dry Polypropylene	2,08 mm	0.082"	26-19	0,4-0,9 mm	26-19	0,4-0,9 mm
UY 		Gel-Filled Polycarbonate Cat.5	1,52 mm	0.060"	26-22	0,4-0,7 mm	N/A	N/A
557-TG2* 		Gel-Filled Polypropylene	3,0 mm	0.12"	22-16	0,6-1,3 mm	N/A	N/A
UP2 		Dry Flame Retardant UL Listed Polycarbonate	1,52 mm	0.060"	26-22	0,4-0,7 mm	26-22	0,4-0,7 mm
UP3 		Dry Flame Retardant UL Listed Polycarbonate	1,52 mm	0.060"	26-19	0,4-0,9 mm	26-19	0,4-0,9 mm
UAL 		Gel-Filled For Aluminum Polycarbonate	Outside parts: 2,08 mm Middle parts: 1,88 mm	Outside parts: 0.082" Middle parts: 0.074"	20-17 AL 24-19 CU	0,8-1,2 AL 0,5-0,9 CU	N/A	N/A
211 		Gel-Filled Polypropylene Cat. 5	2,08 mm	0.082"	26-19	0,4-0,9 mm	N/A	N/A

*Inline and drop wire connectors can only be used with E-9BM.

Specifications for 3M™ Scotchlok™ Connectors and Tools

Connector	Type Connector	Special Features	Maximum Insulation O.D.		PIC-Unfilled and PIC-Filled		Pulp or Paper	
			Metric (mm)	Inches	AWG	Metric (mm)	AWG	Metric (mm)
UB2A 		Gel-Filled Polypropylene Cat. 5	2,08 mm	0.082"	26-19	0,4-0,9 mm	N/A	N/A
UB2A-D 		Dry Polypropylene	2,08 mm	0.082"	26-19	0,4-0,9 mm	26-19	0,4-0,9 mm
UG 		Gel-Filled Polycarbonate	Butt 1,67 mm Tap 1,12 mm	0.066" 0.044"	26-19 26-22	0,4-0,9 mm 0,4-0,6 mm	N/A	N/A
UPB 		Dry UL Listed Flame Retardant Polycarbonate	1,27 mm	0.050"	26-22	0,4-0,7 mm	26-22	0,4-0,7 mm
UDW2* 		Full Pair Drop Pair Polycarbonate	4,4 mm	0.175"	19-16	0,9-1,3 mm	N/A	N/A
U1B* 		Gel-Filled Full Pair Polycarbonate	3,18 mm	0.125"	19-16	0,9-1,3 mm	N/A	N/A
U1R* 		Gel-Filled Full Pair Polycarbonate	3,18 mm	0.125"	24-19	0,5-0,9 mm	N/A	N/A
UCC 		Gel-Filled Polycarbonate	1,52 mm	0.060"	26-22	0,4-0,7 mm	N/A	N/A
UPC 		UL Listed Flame Retardant Polycarbonate	1,52 mm	0.060"	26-22	0,4-0,7 mm	26-22	0,4-0,7 mm

To reduce fatigue, use tool within each group with highest mechanical advantage, indicated in ().



E-9BM
(10:1)



E-9C
(7:1)



E-9E
(4:1)



E-9Y**
(3:1)



E-9R
(10:1)



E-9J
(10:1)

*Inline and drop wire connectors can only be used with E-9BM. **Not recommended for 19 gauge (0.9 mm) conductor and larger.

Ordering Information for 3M™ Scotchlok™ Connectors

Connector	Box Packaging Weight kg (lbs.) Min. Order UPC	Bulk Packaging Weight kg (lbs.) Min. Order UPC	Cartridge Packaging Weight kg (lbs.) Min. Order UPC	Jar Packaging Weight kg (lbs.) Min. Order UPC	Clamshell Packaging Weight kg (lbs.) Min. Order UPC	
UR2	100/box, 1000/cs. 1.36 (3) 1000 connectors 051115-26201	500/box, 5000/cs. 6.7 (15.2) 5000 connectors 051115-26200	10/cart, 100/pak., 1000/cs. 2.09 (4.6) 1000 connectors 051115-26202	500/btl., 5000/cs. 5.9 (13.1) 10 btls. 051115-26116	25/pak, 1000/cs. 1.8 (3.9) 40 pkgs. 051115-26117	50/pak, 1000/cs. 1.54 (3.4) 20 pkgs. 051115-26212
UR2-D	N/A N/A N/A N/A	N/A N/A N/A N/A	10/cart, 100/pak., 1000/cs. 2.09 (4.6) 1000 connectors 054007-71475	500/jar, 10/cs. 5.98 (13.19) 5000 connectors 051115-30060	N/A N/A N/A N/A	
UR	100/box, 1000/cs. 1.36 (3) 1000 connectors 051115-26230	N/A N/A N/A N/A	10/cart, 100/pak., 1000/cs. 2.09 (4.6) 1000 connectors 051115-26232	500/btl., 5000/cs. 5.9 (13.1) 10 btls. 051115-26115	25/pak, 250/cs. .45 (1.0) 10 pkgs. 051115-26238	
UY2	100/box, 1000/cs. 0.9 (1.3) 1000 connectors 051115-26121	1000/box, 5000/cs. 2.8 (6.1) 5000 connectors 051115-26224	12/cart, 120/pak., 1200/cs. 1.4 (3.5) 1200 connectors 051115-26225	500/btl., 10/cs. 3.8 (8.3) 10 btls. 051115-26118	25/pak, 1000/cs. 1.3 (2.8) 40 pkgs. 051115-26119	50/pak, 1000/cs. 1.08 (2.4) 20 pkgs. 051115-26213
UY2-D	N/A N/A N/A N/A	N/A N/A N/A N/A	12/cart, 120/pak., 1200/cs. 1.4 (3.5) 1200 connectors 054007-71478	500/jar, 10/cs. 3.76 (8.3) 5000 connectors 051115-30059	N/A N/A N/A N/A	
UY	100/box, 1000/cs. 0.9 (1.3) 1000 connectors 051115-26214	1000/box, 5000/cs. 2.8 (6.1) 5000 connectors 051115-26221	16/cart, 160/pak., 1600/cs. 1.4 (3.5) 1600 connectors 051115-26223	500/btl., 5000/cs. 2.8 (6.1) 10 btls. 051115-26098	25/pak, 250/cs. .45 (1.0) 10 pkgs. 051115-26237	
557-TG2	N/A N/A N/A N/A	500/bag, 5000/box 9.09 (20) 5000 connectors 051138-57359	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	
UP2	N/A N/A N/A N/A	1000/box, 5000/cs. 2.4 (5.4) 5000 connectors 054007-33420	16/cart, 160/pak., 1600/cs. 1.4 (3.2) 1600 connectors 054007-32698	N/A N/A N/A N/A	N/A N/A N/A N/A	
UP3	100/box, 1000/cs. 1.22 (2.7) 1000 Connectors 051115-16230	1000/box, 5000/cs. 7.31 (13.3) 5000 connectors 054007-33419	10/cart, 100/pak., 1000/cs. 2.0 (4.4) 1000 connectors 054007-32700	N/A N/A N/A N/A	N/A N/A N/A N/A	
UAL	100/box, 1000/cs. 1.22 (2.7) 1000 connectors 051115-26188	N/A N/A N/A N/A	10/cart, 100/pak., 1000/cs. 2.1 (4.7) 1000 connectors 051115-26187	N/A N/A N/A N/A	N/A N/A N/A N/A	
211	100/box, 1000/cs. 1.2 (2.6) 1000 connectors 051115-26185	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	
UB2A	100/box, 1000/cs. 1.2 (2.6) 1000 connectors 051115-26189	N/A N/A N/A N/A	N/A N/A N/A N/A	500/jar, 5000/cs. 4.43 (9.78) 5000 connectors 051115-26193	25/pak., 1000/cs. 1.5 (3.4) 40 pkgs. 051115-26120	
UB2A-D	100/box, 1000/cs. (2.60) 1000 connectors 054007-92694	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	

Ordering Information for 3M™ Scotchlok™ Connectors

Connector	Box Packaging Weight kg (lbs.) Min. Order UPC	Bulk Packaging Weight kg (lbs.) Min. Order UPC	Cartridge Packaging Weight kg (lbs.) Min. Order UPC	Jar Packaging Weight kg (lbs.) Min. Order UPC	Clamshell Packaging Weight kg (lbs.) Min. Order UPC
UG	100/box, 1000/cs. (2.50) 1000 connectors 051115-26197	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
UPB	N/A N/A N/A N/A	1000/box, 5000/cs. 3.0 (6.6) 5000 connectors 054007-33416	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
UDW2	25/bag, 100/box N/A 100 connectors 051115-19144	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
U1B	100/box, 1000/cs. (16.00) 1000 connectors 051115-22636	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
U1R	100/box, 1000/cs. (16.20) 1000 connectors 051115-22637	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
UCC	N/A N/A N/A N/A	1000/box, 5000/cs. 2.31 (5.1) 5000 connectors 051115-26194	16/cart, 160/pak., 1600/cs. 1.6 (3.5) 1600 connectors 051115-26195	500/jar, 5000/cs. 2.8 (6.1) 5000 connectors 051115-26196	N/A N/A N/A N/A
UPC	N/A N/A N/A N/A	1000/box, 5000/cs. 2.16 (4.76) 5000 connectors 054007-33557	16/cart, 160/pak., 1600/cs. 1.5 (3.0) 1600 connectors 054007-33721	N/A N/A N/A N/A	N/A N/A N/A N/A

Tools	E-9BM Crimping	E-9C Cartridge	E-9R Crimping	E-9E Crimping	E-9Y Crimping*	E-9Y-P Crimping	E-9J Crimping
Packaging kg (lbs.)/ cs.	4.3 (9.5)	1/cs. 0.91 (2)	1/bag, 10/cs. 2.59 (5.7)	1/bag, 10/cs. 2.7 (6)	1/bag, 10/cs. 1.53 (3.3)	1/pouch, 10/cs. 1.53 (3.3)	1/bag, 10/cs. 4.1 (9.02)
Minimum Order	10 each	1 each	10 each	10 each	10 each	10 each	10 each
UPC	054007-33482	054007-34211	051138-87649	054007-10577	054007-15625	051115-22987	051115-19004-9

*Not recommended for 19 AWG and larger.

Moisture Guard Connector

The 3M™ Moisture Guard Connector (MGC) provides a convenient way to connect wires for landscape irrigation and lighting applications. Just press the MGC cap and a metal element inside pushes through the wire insulation to make a secure, reliable connection. The grease in the MGC protects against moisture while the MGC housing is UV resistant for above-ground applications.

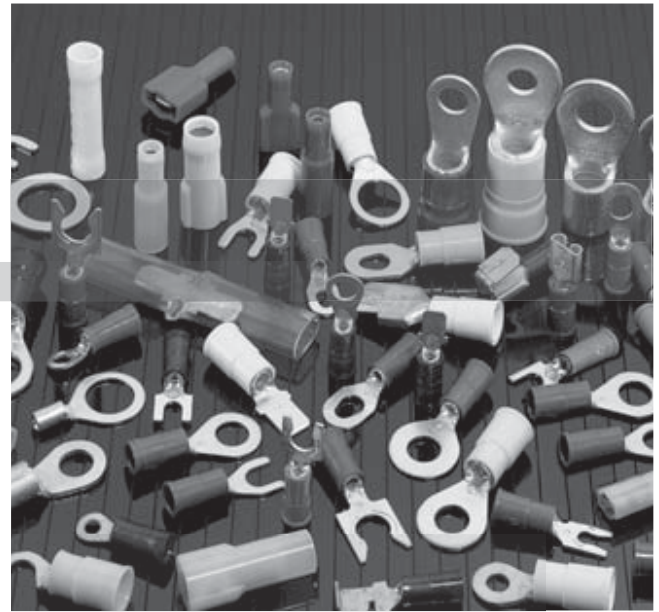


Ordering Information for Moisture Guard Connector

Product Number	UPC (051128-)	Description	Min. Order Qty.
MGC (25/bag)	56827-9	3M™ Moisture Guard Connector - 25/Bag	250
MGC (100/jug)	56828-6	3M™ Moisture Guard Connector - 100/Jug	400

Terminals, Kits and Tools

Glossary of Terminals and Tools Terms	48		
Ring Tongues	53		
Multi-Stud Ring Tongues	78		
Standard Forks	79		
Block Forks	85		
Flanged Block Forks	93		
Locking Forks	98		
Butt Connectors	107	Parallel Connectors	133
Female Disconnects	113	Pin Terminals	134
Male Disconnects	121	3M Highland™ Bagged Terminals	135
Flags	125	Kits	142
Multi-Stack Disconnects	125	Tools	143
Adapters	126	Terminal Stud Size Chart	146
High Temperature	128	American Wire Gauge	146
Closed End Connectors	131		



For more than 30 years, 3M has been a leading supplier of Scotchlok terminals, disconnects, connectors and tools for high performance use in the assembly and maintenance of electrical systems. Thousands of satisfied customers know our products for:

- Effective and reliable performance, UL Listed and CSA Certified where appropriate.
- Variety of types, sizes and materials meeting a broad application range, including the demands of temperature and weather.

- Design features assuring easy installation of 3M products—positive and easy wire insertion, elimination of strand hang-ups and wire twisting, and easy insulation entry.

These are a few of the characteristics that make the installer's job easier.

FREQUENTLY ASKED QUESTIONS

What does the insulation grip do?

The insulation grip provides a “second” crimp on the wire insulation providing additional wire strain relief. It’s excellent for high vibration applications.

Which 3M tools can I use with 3M terminals?

The handy reference guide on pages 143-144 gives you a variety of choices of tools to use with 3M terminals.

What’s the difference between insulated and fully insulated disconnects?

Insulated disconnects have barrel insulation only and fully insulated disconnects are insulated from the barrel to the receptacle/tab.

What temperatures do 3M terminals withstand?

Non-insulated 3M terminals withstand temperatures up to 347°F (175°C). Insulated 3M terminals withstand temperatures up to 221°F (105°C).

Glossary of Terminals and Tools Terms

ADAPTERS

To interconnect two connectors already attached to wires.

BLOCK FORK

Same strength as the fork, but designed to use in terminal block because sides lie flat against barrier portion of terminal block.

BULLET STYLE

Similar advantages as disconnects. Gives reliable in-line connection because parts are made to have holding friction when joined. Usually for automotive use.

BUTT

Uses chamfered barrel ends to provide fast, easy wire insertion from both ends and a built-in wire stop for correct positioning. Must be crimped at both ends.

CLOSED-END

Used in situations requiring pigtail of two or more wires.

FLANGED FORK

Gives the benefit of both the block and locking forks. Stays secure should screw loosen.

FORK

Allows rapid connection of wire. Usually used on free-standing studs, because of wider tongues.

LOCKING FORK

The spring-like tongue locks in place around the stud even when mount screw is not tightened. Extra force is required to remove from stud.

PARALLEL

Similar to butt with overlapped wires and single crimp in center of connector. Used where space is limited.

PINS

For installation in compression blocks. Used in Europe for terminating stranded wire.

QUICK CONNECT (DISCONNECT)

Attached to mating part by tongue of female part slipping over male tab. Use of dents and rolled edges on female part provides excellent holding force while allowing easy and quick disconnect.

RING

The standard style of tongue. The safest and most reliable. It cannot be removed unless mounting screw is removed.

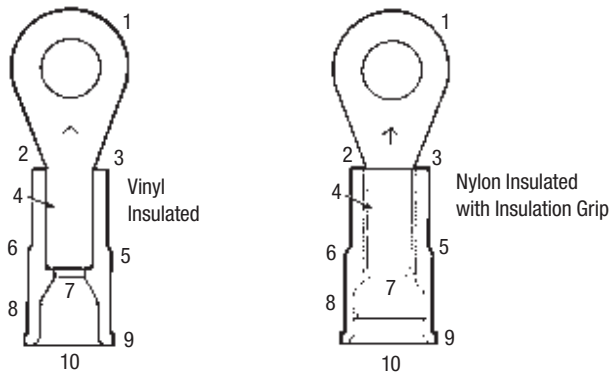
TAB

Uses mounting hole for rivet or screw.

TAP

No wire stripping is necessary, just lay wire in connector and crimp. Connection is made.

Standard Terminal Construction



3M™ Terminals provide a variety of design features assuring consistently effective, reliable performance and easy installation.

Please refer to the illustrations at the numbered locations for the attributes described below.

1. One-piece, burr-free construction provides maximum electrical conductivity. Electrical bright-tin plating gives maximum corrosion resistance. Annealing relieves stress points and assures maximum installed strength.
2. Barrel-to-pad transition design minimizes flexing and bending.
3. Open-end design permits visual inspection of wire location before and after crimping.
4. Maximum hold on wire comes from multiple “V” grooves in #26–4 AWG parts resulting in excellent holding power.
5. Injection molded insulations on terminals are the highest quality in the industry.
 - 221°F (105°C) rated, tough, resistant electrical grade materials
 - Molding ensures consistent wall thickness for maximum reliability after crimping
 - Molding allows funnel barrel construction for easier installation
 - Molding offers the crimp ridge and non-slip ridge
6. Crimp ridge designed for positive location of tool on terminal barrel, resulting in few miscrimps.
7. Funnel barrel construction provides:
 - Positive, easy wire insertion
 - No hang-ups of wire strands
 - Wire twisting not necessary

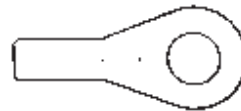
8. Nylon-insulated terminals with grip feature a brass sleeve. Sleeve provides optimum grip on insulation, strain relief and vibration protection. Brass sleeve is recessed which provides excellent flash-over protection.

9. Non-slip ridge so tool slides to correct position for a proper crimp and better workmanship.

10. Beveled leading edge for easy wire insulation entry.

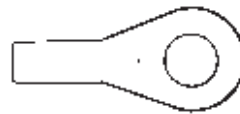
Barrel Styles

Non-Insulated Butted Seam



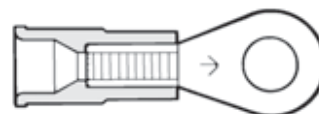
The most economical terminal—used where special performance or installation characteristics are not needed. Beveled mouth facilitates wire insertion. Maximum temperature for bare terminals: 347°F (175°C).

Non-Insulated Brazed Seam



Beveled mouth facilitates wire insertion. Can be crimped anywhere on barrel surface. Silver brazed seam will not open under crimping pressure or operating stresses. Unlike butted seam parts, stranded wire cannot escape barrel confines during or after crimping. Maximum temperature for bare terminals: 347°F (175°C).

Vinyl Insulated Brazed and Butted Seams

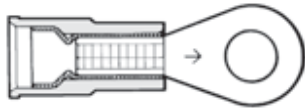


Used where insulated barrel is necessary and desirable. Terminal consists of brazed or butted part with flared, rigid molded polyvinyl chloride sleeve securely attached and funneled for easy wire entry. Wire insulation positions itself against funnel portion of vinyl sleeve thus eliminating strand hang-up. Crimping barrel and flared portion of sleeve provide excellent electrical contact plus mechanical stress relief at junction of insulation and barrel. Insulation has a non-slip ridge for ease of positioning crimping tool.

Industry standard color coding indicates wire range. Insulators are rated at a continuous operating temperature range from -40°F to 221°F (-40°C to 105°C).

UL Listed and CSA Certified for 600V building wire and 1000V signs and lighting fixtures (luminaries).

Nylon Insulated Butted Seam with Insulation Grip



Used where insulated barrel and positive insulation grip are necessary or desirable. Terminal consists of butted seam part with flared, seamless brass sleeve securely attached and covered with flared, molded nylon sleeve. Wire insulation positions itself against funnel portion of brass sleeve. Crimping barrel and flared portion of sleeve provide excellent electrical contact plus mechanical stress relief at junction of insulation and barrel. Positioning crimp tool is nearly mistake proof due to a “step” in nylon insulation. Industry standard color coding indicates wire range. Insulators are rated at a continuous operating temperature range from -40°F to 221°F (-40°C to 105°C).

UL Listed and CSA Certified for 600V building wire and 1000V signs and lighting fixtures (luminaries).

Installation Procedure

Funnel Barrel Feature provides an excellent electrical and mechanical connection.

- Funnel design guides wire into position.



- No wire strand hang-up as the wire is inserted, giving a fast, positive installation.

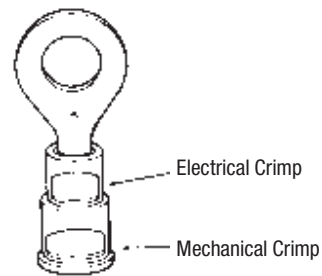


- Wire is in place, ready for crimping.

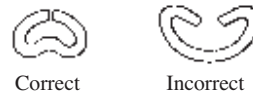


For maximum crimping performance, barrel of connector must be properly indexed in the crimp tool station.

Correct crimping is important to assure a strong connection.



Insulated Terminals and Connectors:



Non-Insulated Terminals and Connectors:

Indent should be opposite the barrel seam.

Heat Shrink Terminals, Connectors and Disconnects

3M™ Heat Shrink pre-insulated terminals, connectors and disconnects protect against the most challenging of environments, making the best moisture protection available. They offer several advantages over conventional unsealed products.

Corrosion Resistance

The adhesive-lined heat shrink material, when properly crimped and shrunk, provides a seal resistant to water, salt, steam and other related contaminants.

Improved Mechanical Performance

The adhesive-lined heat shrink tubing adheres, when shrunk, to both the connector and the wire insulation providing improved pullout strength and strain relief.

Durable Heat Shrink Tubing

Tough heat shrink tubing effectively resists abrasion, scoring, cut-through, and the effects of long-term aging.

Versatile and Easy to Use

3M heat shrink terminals, splices and disconnects are available in wire sizes 22–10 AWG and can be installed easily with a recommended tool and heat source. The connectors are color-coded for wire range identification and the transparent tubing allows for visual inspection.

Application Procedure for Heat Shrink Products:

1. Strip wires to appropriate length as indicated on package label.



2. Insert wire into terminal and crimp with correct station of a recommended tool.



3. Apply heat with a recommended heat source.



High Temperature Terminals and Connectors

3M high temperature terminals and connectors are constructed of steel with a nickel plating. Their temperature rating for continuous use at 900°F (482°C) makes them perfect for use in ovens, motors, light fixtures and other applications where other connectors would corrode or melt.

There is no applicable UL or CSA standard for high temperature steel parts.

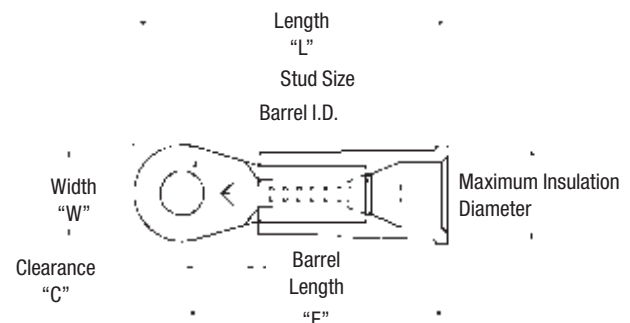
Standard Crimp Terminal and Connector Specifications

Materials

Crimp terminals and connectors are to be burr-free, annealed and bright-tin plated ETP copper. Barrels shall be 0.25" long with brazed seams where specified. Insulation grip sleeves are to be tin-plated brass and attached securely to the barrel. Terminal insulators are to be molded polyvinyl chloride or nylon, UL Listed and CSA Certified for 600V in building wire and 1000V in signs and lighting fixtures (luminaries). Connector insulators are to be extruded polyvinyl chloride or nylon with a temperature rating of 221°F (105°C).

Construction

All insulated terminals are to have funnel entry construction to prevent strand hang-up and a crimp ridge for proper tool location. Nylon insulated terminals and connectors are to have butted seam barrels with insulation grip sleeves. All terminal barrels are to have multiple "V" grooves for maximum conductor retention.



Note: All dimensions are measured in inches.

3M™ Terminal Numbering System

3M Identity	Code/Barrel Style	Wire Size Code (AWG)	–	Stud, Tab, or Bullet Size	Tongue Code	Product Availability**
M	No Code = Bare Brazed	24 = 26–24 (yellow)	–	(STUD)	F = Fork	All box (X) package terminals in this catalog are available (in the packaging quantity indicated) from local distributor stocks. All bulk (K) packaged terminals are available in full cartons only, and may require a three to five week order lead time from the factory.
	A = No Barrel (adapter)	20 = 26–20 (yellow)		0 = 0	FB = Fork, Block	
	I = Double Wall w/interlock	18 = 22–18 (red)		2 = 2	FBHT = Fork, Block, High Temp.	
	N = Nylon Brazed	14 = 16–14 (blue)		4 = 4	FFB = Fork, Flanged, Block	
	NG = Nylon w/ Grip	10 = 12–10 (yellow)		6 = 6	FHT = Fork, High Temp.	
	NHU = Nylon/Butted	8 = 8 (red)		8 = 8	FL = Fork, Locking	
	w/ Heat Shrink Over Top	6 = 6 (blue)		10 = 10	R = Ring	
	NU = Nylon/Butted	4 = 4 (yellow)		12 = 1/2"	RHD = Ring, Heavy Duty	
	U = Bare/Butted			14 = 1/4"	RHT = Ring, High Temp.	
	V = Vinyl/Brazed			38 = 3/8"	/S = Short or Small	
	VA = Vinyl Adapter			516 = 5/16"	/L = Large or Long	
	VU = Vinyl/Butted			610 = 6, 8 10	R/Flag = Ring, Flag	
					BC = Butt Connector	
					CEC = Closed End Connector	
					P = Pin Connector	
					PC = Parallel Connector	
					BCM = Butt Connector	
					Moisture Res.	
					CEC/ST = Closed End Connector, Steel Insert	
					Disconnect	
					DF = Female	
					DFHT = Female, High Temp.	
					DFI = Female, Fully Insulated	
					DM = Male	
			DMF = Male, Female			
			DMHT = Male, High Temp.			
			DMI = Male, Fully Insulated			
			DF/Flag = Female Flag			
			Adapter			
			D = Disconnects			
			F = Female			
			FFI = Double Female, Fully Insulated			
			M = Male			
			MMI = Double Male, Fully Insulated			
			MMF = Double Male, Female			
			MFM = Male, Female, Male, Stacking			
			RR = Ring Rectangular Tongue			
			Fuse = Fuse Adapter Clip			

* A dash (–) separates the wire size code from the stud, tab or bullet size code.

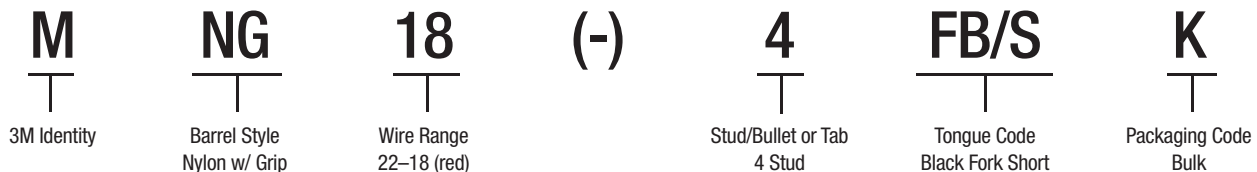
** Denotes product packaging. Packaging of 3M Scotchlok™ terminals should be specified by using the appropriate terminal part number. Suffix letters are indicated within each product number. (See "Product Number" heading in ordering information charts.)

Note: Contact your local distributor or 3M sales office for price and delivery information.

Map of Numbering System

Example:

Catalog Number: MNG18-4 FB/SK



Insulator Color Coding

Yellow (26-24 AWG) Red (22-18 AWG) Blue (16-14 AWG) Yellow (12-10 AWG) Red (8 AWG) Blue (6 AWG) Yellow (4 AWG)

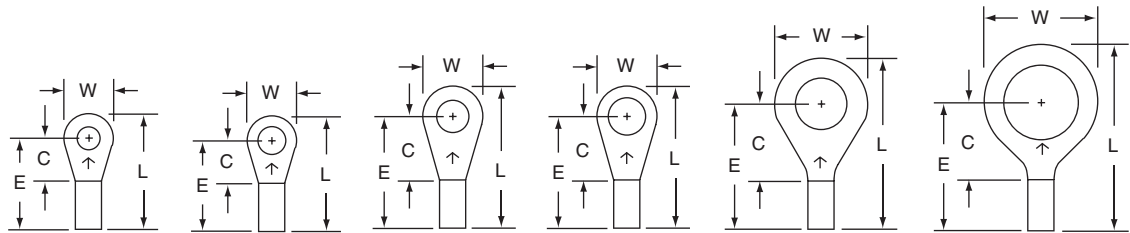
*Product number ending in X = box; product number ending with K = bulk.

Ring Tongues

3M™ Ring Tongues — Non-Insulated Brazed Seam 22-18 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M18-4R/SX	49590	22-18	4	0.25	0.22	0.60	0.47	0.030	0.25	0.070	100	500
M18-4R/SK	01014	22-18	4	0.25	0.22	0.60	0.47	0.030	0.25	0.070	—	1000
M18-6R/SX	21635	22-18	6	0.25	0.22	0.60	0.47	0.030	0.25	0.070	100	500
M18-6R/SK	01016	22-18	6	0.25	0.22	0.60	0.47	0.030	0.25	0.070	—	1000
M18-8R/LX	21643	22-18	8	0.31	0.33	0.74	0.58	0.030	0.25	0.070	100	500
M18-8R/LK	01021	22-18	8	0.31	0.33	0.74	0.58	0.030	0.25	0.070	—	1000
M18-10R/LX	21650	22-18	10	0.31	0.33	0.74	0.58	0.030	0.25	0.070	100	500
M18-10R/LK	01023	22-18	10	0.31	0.33	0.74	0.58	0.030	0.25	0.070	—	1000
M18-14R/SX	49591	22-18	1/4	0.47	0.40	0.89	0.65	0.030	0.25	0.070	100	500
M18-38RX	49593	22-18	3/8	0.56	0.40	0.93	0.65	0.030	0.25	0.070	100	500



M18-4R/S

M18-6R/S

M18-8R/L

M18-10R/L

M18-14R/S

M18-38R

Stud Size

4

6

8

10

1/4

3/8

Wire Range

22-18

22-18

22-18

22-18

22-18

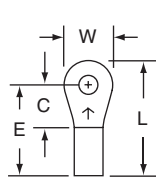
22-18

¹Product number ending in X = box; product number ending with K = bulk.

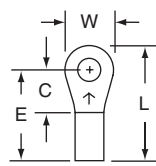
3M™ Ring Tongues — Non-Insulated Brazed Seam 16-14 AWG



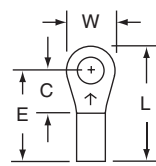
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M14-2R/SK	01379	16-14	2	0.25	0.22	0.60	0.47	0.030	0.25	0.090	—	1000
M14-4R/SX	49612	16-14	4	0.25	0.22	0.60	0.47	0.030	0.25	0.090	100	500
M14-6R/SX	22294	16-14	6	0.25	0.22	0.60	0.47	0.030	0.25	0.090	100	500
M14-6R/SK	01382	16-14	6	0.25	0.22	0.60	0.47	0.030	0.25	0.090	—	1000
M14-6R/LK	01384	16-14	6	0.31	0.33	0.74	0.58	0.030	0.25	0.090	—	1000
M14-8R/LX	22302	16-14	8	0.31	0.33	0.74	0.58	0.030	0.25	0.090	100	500
M14-8R/LK	13880	16-14	8	0.31	0.33	0.74	0.58	0.030	0.25	0.090	—	1000
M14-10RK	13929	16-14	10	0.33	0.29	0.70	0.54	0.030	0.25	0.090	—	1000
M14-10R/LX	22310	16-14	10	0.31	0.33	0.74	0.58	0.030	0.25	0.090	100	500
M14-10R/LK	01389	16-14	10	0.31	0.33	0.74	0.58	0.030	0.25	0.090	—	1000
M14-14R/SX	22328	16-14	1/4	0.47	0.40	0.89	0.65	0.030	0.25	0.090	100	500
M14-14R/SK	01390	16-14	1/4	0.47	0.40	0.89	0.65	0.030	0.25	0.090	—	1000
M14-516R/SK	01392	16-14	5/16	0.47	0.40	0.89	0.65	0.030	0.25	0.090	—	1000
M14-38RX	49614	16-14	3/8	0.56	0.40	0.93	0.65	0.030	0.25	0.090	100	500



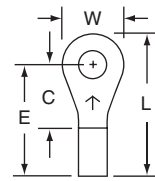
M14-2R/S



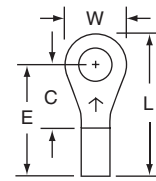
M14-4R/S



M14-6R/S



M14-6R/L



M14-8R/L

Stud Size

2

4

6

6

8

Wire Range

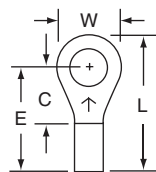
16-14

16-14

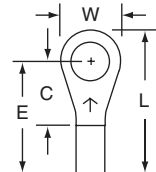
16-14

16-14

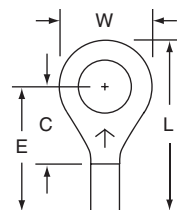
16-14



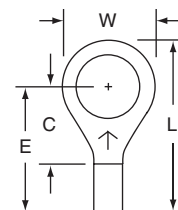
M14-10R



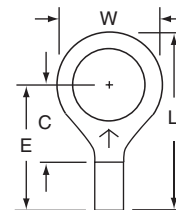
M14-10R/L



M14-14R/S



M14-516R/S



M14-38R

Stud Size

10

10

1/4

5/16

3/8

Wire Range

16-14

16-14

16-14

16-14

16-14

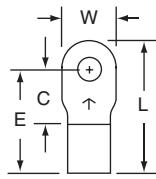
*Product number ending in X = box; product number ending with K = bulk.



3M™ Ring Tongues — Non-Insulated Brazed Seam 12-10 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M10-4R/SK	01890	12-10	4	0.28	0.29	0.68	0.54	0.040	0.25	0.135	—	500
M10-6RX	23250	12-10	6	0.38	0.29	0.73	0.54	0.040	0.25	0.135	50	500
M10-6RK	01892	12-10	6	0.38	0.29	0.73	0.54	0.040	0.25	0.135	—	500
M10-8RX	23268	12-10	8	0.38	0.29	0.73	0.54	0.040	0.25	0.135	50	500
M10-8RK	01894	12-10	8	0.38	0.29	0.73	0.54	0.040	0.25	0.135	—	500
M10-10RX	23276	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	50	500
M10-10RK	14002	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	—	500
M10-14R/SX	23284	12-10	1/4	0.54	0.44	0.96	0.69	0.040	0.25	0.135	50	500
M10-14R/SK	01896	12-10	1/4	0.54	0.44	0.96	0.69	0.040	0.25	0.135	—	500
M10-516R/SX	49637	12-10	5/16	0.54	0.44	0.96	0.69	0.040	0.25	0.135	50	500
M10-38R/SX	49638	12-10	3/8	0.54	0.44	0.96	0.69	0.040	0.25	0.135	50	500
M10-38R/SK	01900	12-10	3/8	0.54	0.44	0.96	0.69	0.040	0.25	0.135	—	500
M10-12RK	01903	12-10	1/2	0.75	0.57	1.19	0.82	0.040	0.25	0.135	—	500



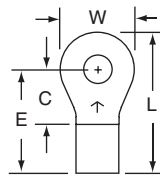
M10-4R/S

Stud Size

4

Wire Range

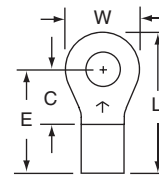
12-10



M10-6R

6

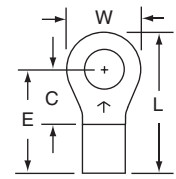
12-10



M10-8R

8

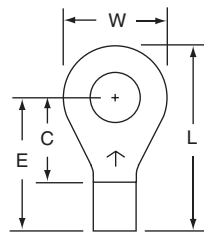
12-10



M10-10R

10

12-10



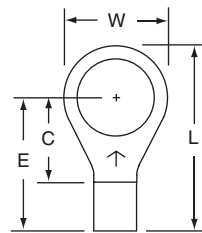
M10-14R/S

Stud Size

1/4

Wire Range

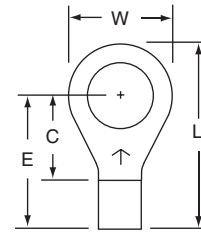
12-10



M10-516R/S

5/16

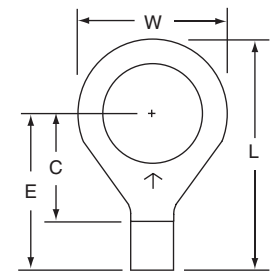
12-10



M10-38R/S

3/8

12-10



M10-12R

1/2

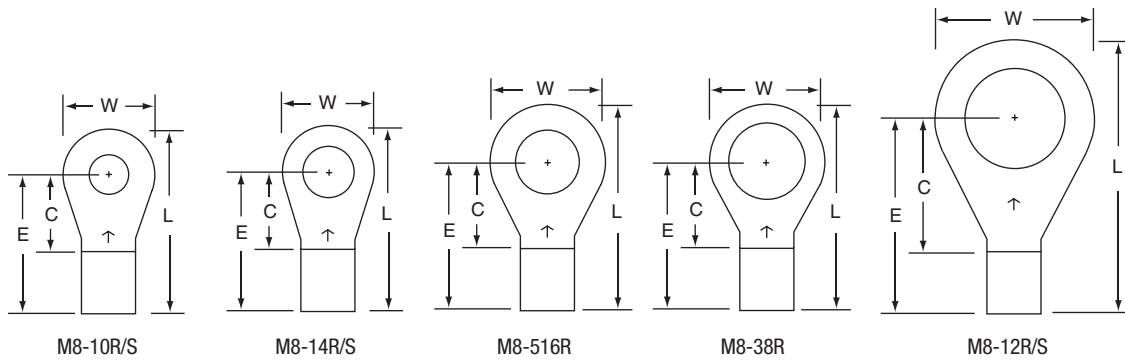
12-10

*Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Non-Insulated Brazed Seam 8 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M8-10R/SX	24118	8	10	0.47	0.40	0.95	0.72	0.050	0.31	0.175	25	250
M8-10R/SK	02118	8	10	0.47	0.40	0.95	0.72	0.050	0.31	0.175	—	200
M8-14R/SX	24126	8	1/4	0.47	0.40	0.95	0.72	0.050	0.31	0.175	25	250
M8-516RX	24134	8	5/16	0.59	0.45	1.06	0.77	0.050	0.31	0.175	25	250
M8-516RK	02122	8	5/16	0.59	0.45	1.06	0.77	0.050	0.31	0.175	—	200
M8-38RX	24142	8	3/8	0.59	0.45	1.06	0.77	0.050	0.31	0.175	25	250
M8-38RK	02123	8	3/8	0.59	0.45	1.06	0.77	0.050	0.31	0.175	—	200
M8-12R/SK	02126	8	1/2	0.81	0.69	1.41	1.00	0.050	0.31	0.175	—	200



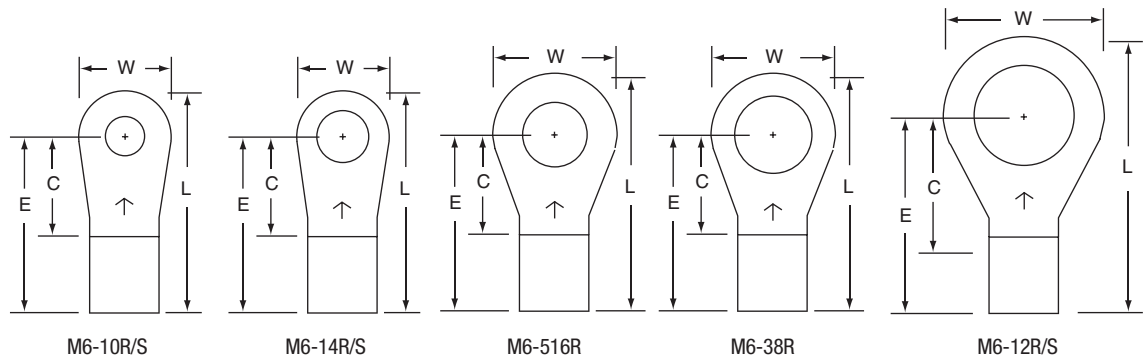
Stud Size	10	1/4	5/16	3/8	1/2
Wire Range	8	8	8	8	8

*Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Non-Insulated Brazed Seam 6 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M6-10R/SX	24175	6	10	0.47	0.52	1.14	0.91	0.050	0.39	0.250	20	200
M6-10R/SK	02147	6	10	0.47	0.52	1.14	0.91	0.050	0.39	0.250	—	200
M6-14R/SX	24183	6	1/4	0.47	0.52	1.14	0.91	0.050	0.39	0.250	20	200
M6-14R/SK	02149	6	1/4	0.47	0.52	1.14	0.91	0.050	0.39	0.250	—	200
M6-516RX	24191	6	5/16	0.63	0.52	1.22	0.91	0.050	0.39	0.250	20	200
M6-516RK	02151	6	5/16	0.63	0.52	1.22	0.91	0.050	0.39	0.250	—	200
M6-38RX	24209	6	3/8	0.63	0.52	1.22	0.91	0.050	0.39	0.250	20	200
M6-38RK	02152	6	3/8	0.63	0.52	1.22	0.91	0.050	0.39	0.250	—	200
M6-12R/SK	02155	6	1/2	0.81	0.63	1.42	1.02	0.050	0.39	0.250	—	200



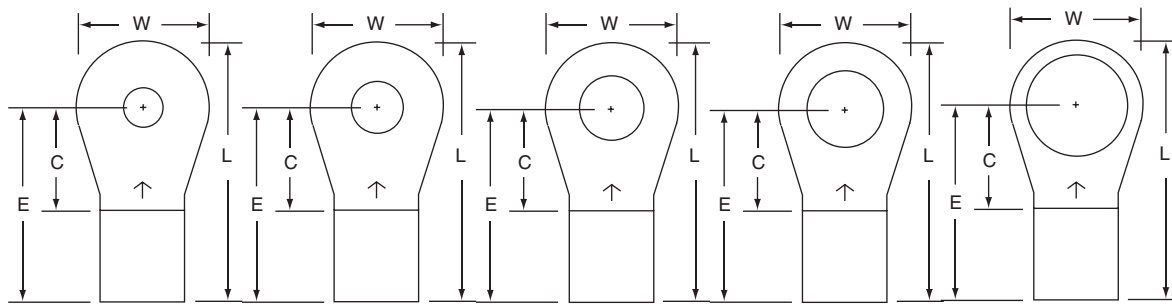
	M6-10R/S	M6-14R/S	M6-516R	M6-38R	M6-12R/S
Stud Size	10	1/4	5/16	3/8	1/2
Wire Range	6	6	6	6	6

*Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Non-Insulated Brazed Seam 4 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M4-10RX	49648	4	10	0.68	0.53	1.34	1.00	0.075	0.47	0.280	20	200
M4-10RK	02176	4	10	0.68	0.53	1.34	1.00	0.075	0.47	0.280	—	200
M4-14RX	24241	4	1/4	0.68	0.53	1.34	1.00	0.075	0.47	0.280	20	200
M4-14RK	02177	4	1/4	0.68	0.53	1.34	1.00	0.075	0.47	0.280	—	200
M4-516RX	24258	4	5/16	0.68	0.53	1.34	1.00	0.075	0.47	0.280	20	200
M4-516RK	02178	4	5/16	0.68	0.53	1.34	1.00	0.075	0.47	0.280	—	200
M4-38RX	24266	4	3/8	0.68	0.53	1.34	1.00	0.075	0.47	0.280	20	200
M4-38RK	02179	4	3/8	0.68	0.53	1.34	1.00	0.075	0.47	0.280	—	200
M4-12R/SK	02182	4	1/2	0.68	0.53	1.34	1.00	0.075	0.47	0.280	—	200



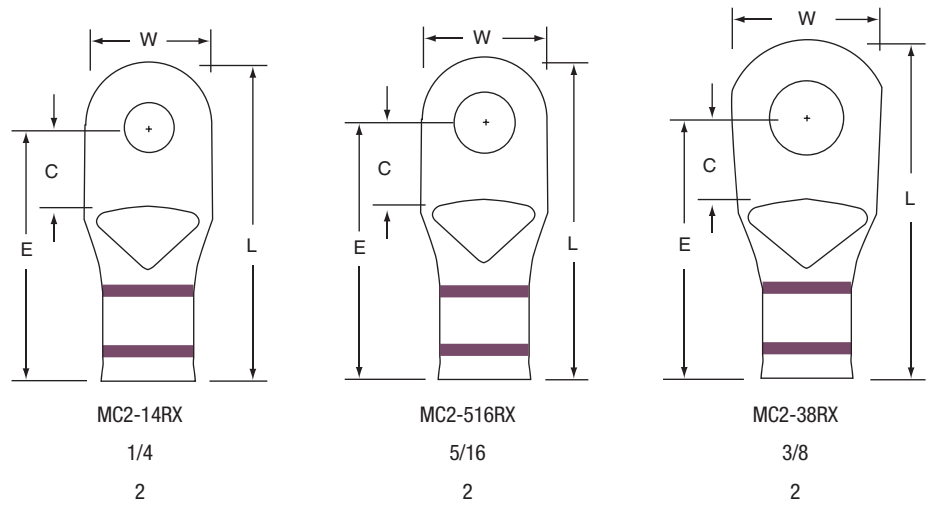
Stud Size	10	1/4	5/16	3/8	1/2
Wire Range	4	4	4	4	4

*Product number ending in X = box; product number ending with K = bulk.

3M™ Large Gauge Ring Tongues — Non-Insulated Copper Seamless 2 AWG



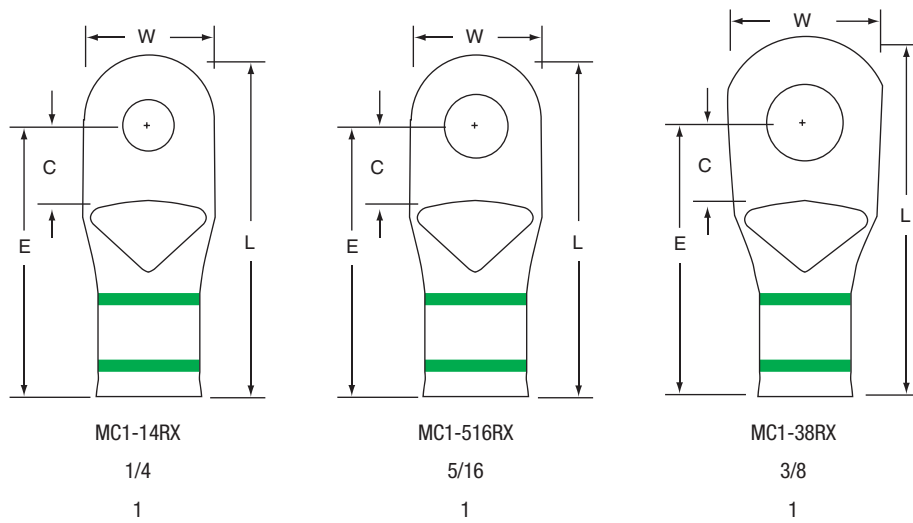
Product Number*	UPC (054007-)	Color Code	Wire Range (AWG)	Stud Size	W	C	L	Thickness	Barrel I.D.	Inner Unit Pack	Case Qty.
MC2-14RX	09187	Brown	2 AWG	1/4" (6 mm)	0.65" (16,5 mm)	0.41" (10,4 mm)	1.69" (42,9 mm)	0.10" (2,5 mm)	0.34" (8,6 mm)	10/box	100
MC2-516RX	09188	Brown	2 AWG	5/16" (8 mm)	0.65" (16,5 mm)	0.41" (10,4 mm)	1.69" (42,9 mm)	0.10" (2,5 mm)	0.34" (8,6 mm)	10/box	100
MC2-38RX	09189	Brown	2 AWG	3/8" (10 mm)	0.65" (16,5 mm)	0.41" (10,4 mm)	1.69" (42,9 mm)	0.10" (2,5 mm)	0.34" (8,6 mm)	10/box	100



*Product number ending in X = box; product number ending with K = bulk.

3M™ Large Gauge Ring Tongues — Non-Insulated Copper Seamless 1 AWG Ⓢ Ⓛ

Product Number ¹	UPC (054007-)	Color Code	Wire Range (AWG)	Stud Size	W	C	L	Thickness	Barrel I.D.	Inner Unit Pack	Case Qty.
MC1-14RX	09190	Green	1 AWG	1/4"	0.65"	0.43"	1.71"	0.10"	0.36"	10/box	100
				(6 mm ²)	(16,5 mm)	(10,9 mm)	(43,4 mm)	(2,5 mm)	(9,1 mm)		
MC1-516RX	09191	Green	1 AWG	5/16"	0.65"	0.43"	1.71"	0.10"	0.36"	10/box	100
				(8 mm ²)	(16,5 mm)	(10,9 mm)	(43,4 mm)	(2,5 mm)	(9,1 mm)		
MC1-38RX	09192	Green	1 AWG	3/8"	0.68"	0.43"	1.71"	0.10"	0.36"	10/box	100
				(10 mm ²)	(17,3 mm)	(10,9 mm)	(43,4 mm)	(2,5 mm)	(9,1 mm)		

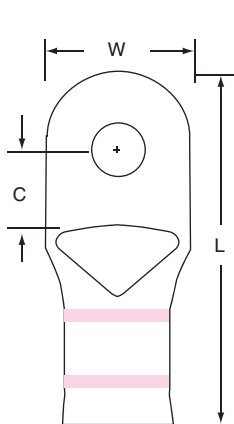


¹Product number ending in X = box; product number ending with K = bulk.

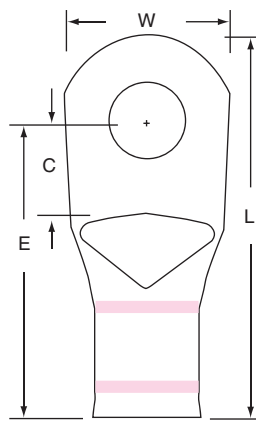


3M™ Large Gauge Ring Tongues — Non-Insulated Copper Seamless 1/0 AWG

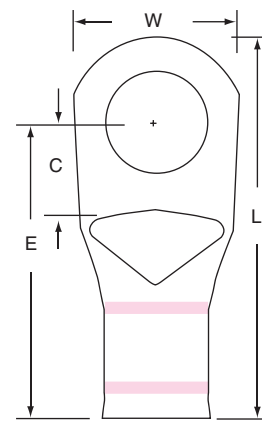
Product Number ¹	UPC (054007-)	Color Code	Wire Range (AWG)	Stud Size	W	C	L	Thickness	Barrel I.D.	Inner Unit Pack	Case Qty.
MC1/0-14RX	09193	Pink	1/0 AWG	1/4"	0.75"	0.38"	1.84"	0.10"	0.41"	10/box	100
				(6 mm ²)	(19,0 mm)	(9,7 mm)	(46,7 mm)	(2,5 mm)	(10,4 mm)		
MC1/0-38RX	09194	Pink	1/0 AWG	3/8"	0.75"	0.42"	1.84"	0.10"	0.41"	10/box	100
				(8 mm ²)	(19,0 mm)	(10,7 mm)	(46,7 mm)	(2,5 mm)	(10,4 mm)		
MC1/0-12RX	09195	Pink	1/0 AWG	1/2"	0.75"	0.42"	1.84"	0.10"	0.41"	10/box	100
				(12 mm ²)	(19,0 mm)	(10,7 mm)	(46,7 mm)	(2,5 mm)	(10,4 mm)		



MC1/0-14RX



MC1/0-38RX



MC1/0-12RX

Stud Size
Wire Range

1/4
1/0

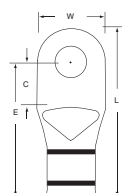
3/8
1/0

1/2
1/0

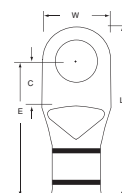
¹Product number ending in X = box; product number ending with K = bulk.

3M™ Large Gauge Ring Tongues — Non-Insulated Copper Seamless 2/0 AWG Ⓢ Ⓛ

Product Number ¹	UPC (054007-)	Color Code	Wire Range (AWG)	Stud Size	W	C	L	Thickness	Barrel I.D.	Inner Unit Pack	Case Qty.
MC2/0-38RX	09197	Black	2/0 AWG	3/8"	0.83"	0.48"	2.05"	0.10"	0.46"	10/box	100
				(10 mm ²)	(21,1 mm)	(12,2 mm)	(52,1 mm)	(2,5 mm)	(11,7 mm)		
MC2/0-12RX	09198	Black	2/0 AWG	1/2"	0.83"	0.48"	2.05"	0.10"	0.46"	10/box	100
				(12 mm ²)	(21,1 mm)	(12,2 mm)	(52,1 mm)	(2,5 mm)	(11,7 mm)		



MC2/0-38RX



MC2/0-12RX

Stud Size

3/8

1/2

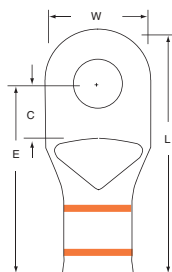
Wire Range

2/0

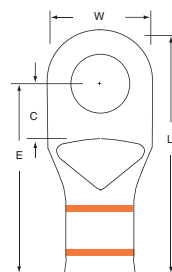
2/0

3M™ Large Gauge Ring Tongues — Non-Insulated Copper Seamless 3/0 AWG Ⓢ Ⓛ

Product Number ¹	UPC (054007-)	Color Code	Wire Range (AWG)	Stud Size	W	C	L	Thickness	Barrel I.D.	Inner Unit Pack	Case Qty.
MC3/0-38RX	09199	Orange	3/0 AWG	3/8"	0.91"	0.50"	2.24"	0.12"	0.51"	6/box	60
				(10 mm ²)	(23,1 mm)	(12,7 mm)	(56,9 mm)	(3,1 mm)	(13,0 mm)		
MC3/0-12RX	09200	Orange	3/0 AWG	1/2"	0.91"	0.50"	2.24"	0.12"	0.51"	6/box	60
				(12 mm ²)	(23,1 mm)	(12,7 mm)	(56,9 mm)	(3,1 mm)	(13,0 mm)		



MC3/0-38RX



MC3/0-12RX

Stud Size

3/8

1/2

Wire Range

3/0

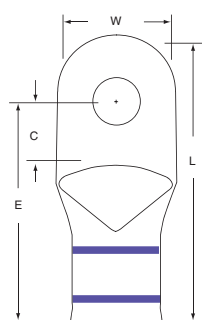
3/0

¹Product number ending in X = box; product number ending with K = bulk.

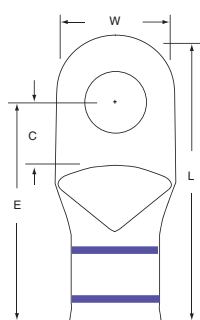
3M™ Large Gauge Ring Tongues — Non-Insulated Copper Seamless 4/0 AWG-250 kcmil



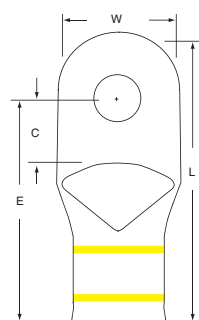
Product Number*	UPC (054007-)	Color Code	Wire Range (AWG)	Stud Size	W	C	L	Thickness	Barrel I.D.	Inner Unit Pack	Case Qty.
MC4/0-38RX	09201	Purple	4/0 AWG	3/8"	1.00"	0.52"	2.29"	0.125"	0.56"	6/box	60
				(10 mm ²)	(25,4 mm)	(13,2 mm)	(58,2 mm)	(3,2 mm)	(14,2 mm)		
MC4/0-12RX	09202	Purple	4/0 AWG	1/2"	1.00"	0.52"	2.29"	0.125"	0.56"	6/box	60
				(12 mm ²)	(25,4 mm)	(13,2 mm)	(58,2 mm)	(3,2 mm)	(14,2 mm)		
MC250-38RX	09203	Yellow	250 kcmil	3/8"	1.13"	0.60"	2.43"	0.14"	0.63"	6/box	60
				(10 mm ²)	(28,7 mm)	(15,2 mm)	(61,7 mm)	(3,6 mm)	(16,0 mm)		
MC250-12RX	09204	Yellow	250 kcmil	1/2"	1.13"	0.60"	2.43"	0.14"	0.63"	6/box	60
				(12 mm ²)	(28,7 mm)	(15,2 mm)	(61,7 mm)	(3,6 mm)	(16,0 mm)		



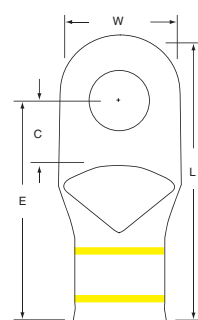
MC4/0-38RX



MC4/0-12RX



MC250-38RX

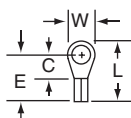


MC250-12RX

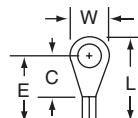
Stud Size	3/8	1/2	3/8	1/2
Wire Range	4/0	4/0	250 (kcmil)	250 (kcmil)

3M™ Ring Tongues — Non-Insulated Butted Seam 26-24 AWG

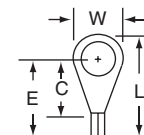
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU24-2RK	00958	26-24	2	0.14	0.12	0.31	0.24	0.020	0.13	0.030	1000
MU24-4RK	00959	26-24	4	0.20	0.21	0.45	0.35	0.020	0.14	0.030	1000
MU24-8RK	00961	26-24	8	0.25	0.28	0.53	0.40	0.020	0.13	0.030	1000



MU24-2R



MU24-4R



MU24-8R

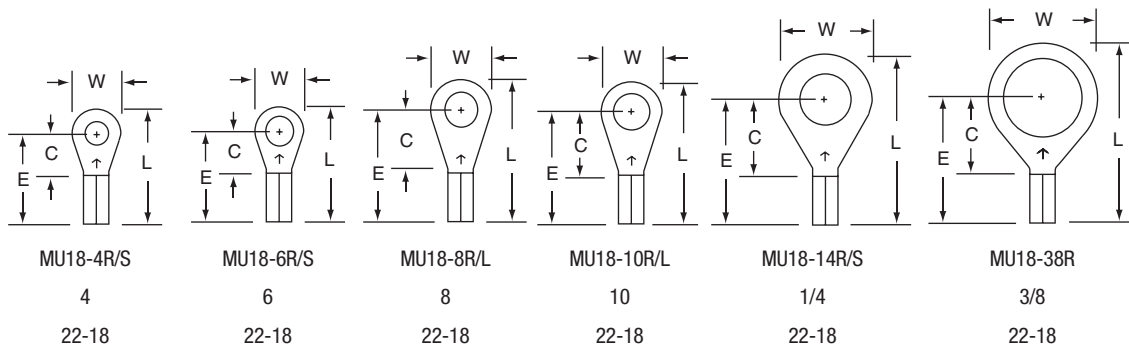
Stud Size	2	4	8
Wire Range	26-24	26-24	26-24

*Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Non-Insulated Butted Seam 22-18 AWG



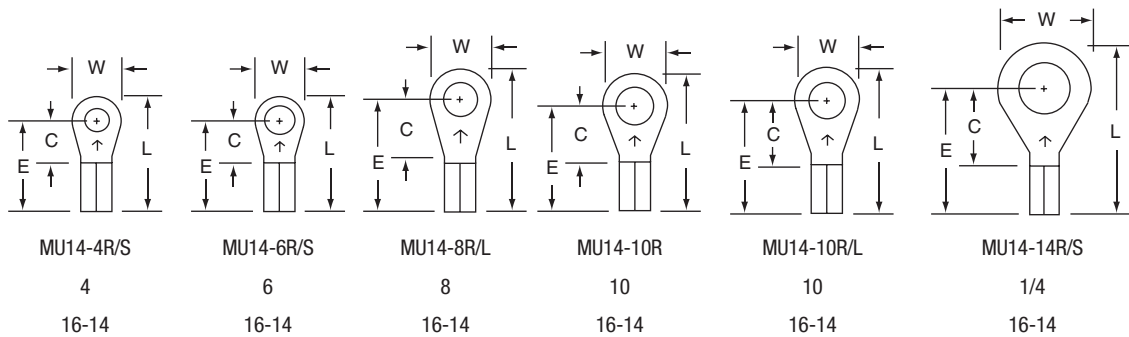
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU18-4R/SK	00998	22-18	4	0.25	0.22	0.60	0.47	0.030	0.25	0.070	1000
MU18-6R/SK	01000	22-18	6	0.25	0.22	0.60	0.47	0.030	0.25	0.070	1000
MU18-8R/LK	01005	22-18	8	0.31	0.33	0.74	0.58	0.030	0.25	0.070	1000
MU18-10R/LK	01007	22-18	10	0.31	0.33	0.74	0.58	0.030	0.25	0.070	1000
MU18-14R/SK	01008	22-18	1/4	0.47	0.40	0.89	0.65	0.030	0.25	0.070	1000
MU18-38RK	01012	22-18	3/8	0.56	0.40	0.93	0.65	0.030	0.25	0.070	1000



3M™ Ring Tongues — Non-Insulated Butted Seam 16-14 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU14-4R/SK	01364	16-14	4	0.25	0.22	0.60	0.47	0.030	0.25	0.090	1000
MU14-6R/SK	01366	16-14	6	0.25	0.22	0.60	0.47	0.030	0.25	0.090	1000
MU14-8R/LK	01371	16-14	8	0.31	0.33	0.74	0.58	0.030	0.25	0.090	1000
MU14-10RK	01372	16-14	10	0.33	0.29	0.70	0.54	0.030	0.25	0.090	1000
MU14-10R/LK	01373	16-14	10	0.31	0.33	0.74	0.58	0.030	0.25	0.090	1000
MU14-14R/SK	01374	16-14	1/4	0.47	0.40	0.89	0.65	0.030	0.25	0.090	1000

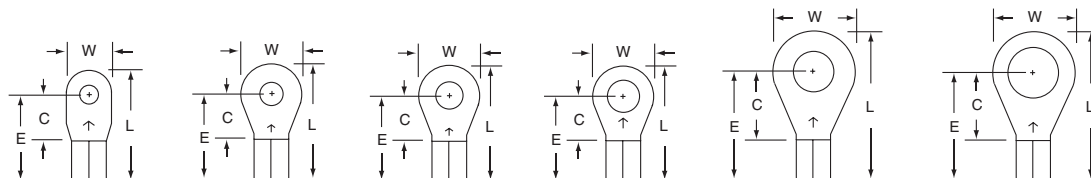


¹Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Non-Insulated Butted Seam 12-10 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU10-4R/SK	01876	12-10	4	0.28	0.29	0.68	0.54	0.040	0.25	0.135	500
MU10-6RK	01878	12-10	6	0.38	0.29	0.73	0.54	0.040	0.25	0.135	500
MU10-8RK	01880	12-10	8	0.38	0.29	0.73	0.54	0.040	0.25	0.135	500
MU10-10RK	01881	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	500
MU10-14R/SK	01882	12-10	1/4	0.53	0.44	0.96	0.69	0.040	0.25	0.135	500

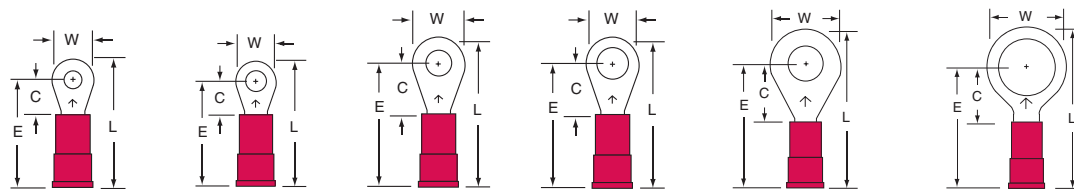


	MU10-4R/S	MU10-6R	MU10-8R	MU10-10R	MU10-14R/S	MU10-516R/S
Stud Size	4	6	8	10	1/4	5/16
Wire Range	12-10	12-10	12-10	12-10	12-10	12-10

3M™ Ring Tongues — Vinyl Insulated Brazed Seam 22-18 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Terminals per Case
MV18-4R/SX	21700	22-18	4	0.25	0.22	0.80	0.67	0.030	0.25	0.070	0.145	100	500
MV18-4R/SK	01046	22-18	4	0.25	0.22	0.80	0.67	0.030	0.25	0.070	0.145	—	1000
MV18-6R/SX	21718	22-18	6	0.25	0.22	0.80	0.67	0.030	0.25	0.070	0.145	100	500
MV18-6R/SK	01048	22-18	6	0.25	0.22	0.80	0.67	0.030	0.25	0.070	0.145	—	1000
MV18-8R/LX	21726	22-18	8	0.31	0.33	0.93	0.78	0.030	0.25	0.070	0.145	100	500
MV18-8R/LK	01053	22-18	8	0.31	0.33	0.93	0.78	0.030	0.25	0.070	0.145	—	1000
MV18-10R/LX	21734	22-18	10	0.31	0.33	0.93	0.78	0.030	0.25	0.070	0.145	100	500
MV18-10R/LK	01055	22-18	10	0.31	0.33	0.93	0.78	0.030	0.25	0.070	0.145	—	1000
MV18-14R/SX	21742	22-18	1/4	0.47	0.40	1.08	0.85	0.030	0.25	0.070	0.145	100	500
MV18-14R/SK	01056	22-18	1/4	0.47	0.40	1.08	0.85	0.030	0.25	0.070	0.145	—	1000
MV18-516R/SX	49594	22-18	5/16	0.47	0.40	1.08	0.85	0.030	0.25	0.070	0.145	100	500
MV18-38RX	21767	22-18	3/8	0.56	0.40	1.13	0.85	0.030	0.25	0.070	0.145	100	500
MV18-38RK	01060	22-18	3/8	0.56	0.40	1.13	0.85	0.030	0.25	0.070	0.145	—	1000



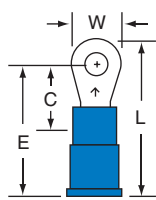
	MV18-4R/S	MV18-6R/S	MV18-8R/L	MV18-10R/L	MV18-14R/S	MV18-38R
Stud Size	4	6	8	10	1/4	3/8
Wire Range	22-18	22-18	22-18	22-18	22-18	22-18

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Vinyl Insulated Brazed Seam 16-14 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Terminals per Case
MV14-4R/SX	22369	16-14	4	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	100	500
MV14-4R/SK	01412	16-14	4	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	—	1000
MV14-6R/SX	22377	16-14	6	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	100	500
MV14-6R/SK	01414	16-14	6	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	—	1000
MV14-8R/SK	01417	16-14	8	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	—	1000
MV14-8R/LX	22385	16-14	8	0.31	0.33	0.93	0.78	0.030	0.25	0.090	0.170	100	500
MV14-8R/LK	01419	16-14	8	0.31	0.33	0.93	0.78	0.030	0.25	0.090	0.170	—	1000
MV14-10RK	01420	16-14	10	0.33	0.29	0.90	0.74	0.030	0.25	0.090	0.170	—	1000
MV14-10R/LX	22393	16-14	10	0.31	0.33	0.93	0.78	0.030	0.25	0.090	0.170	100	500
MV14-10R/LK	01421	16-14	10	0.31	0.33	0.93	0.78	0.030	0.25	0.090	0.170	—	1000
MV14-14R/SX	22401	16-14	1/4	0.47	0.40	1.08	0.85	0.030	0.25	0.090	0.170	100	500
MV14-14R/SK	01422	16-14	1/4	0.47	0.40	1.08	0.85	0.030	0.25	0.090	0.170	—	1000
MV14-516R/SX	49615	16-14	5/16	0.47	0.40	1.08	0.85	0.030	0.25	0.090	0.170	100	500
MV14-516R/SK	01424	16-14	5/16	0.47	0.40	1.08	0.85	0.030	0.25	0.090	0.170	—	1000
MV14-38RX	22427	16-14	3/8	0.56	0.40	1.13	0.85	0.030	0.25	0.090	0.170	100	500
MV14-38RK	00546	16-14	3/8	0.56	0.40	1.13	0.85	0.030	0.25	0.090	0.170	—	1000



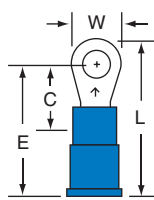
MV14-4R/S

Stud Size

4

Wire Range

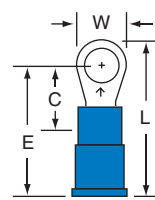
16-14



MV14-6R/S

6

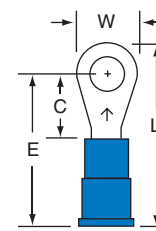
16-14



MV14-8R/S

8

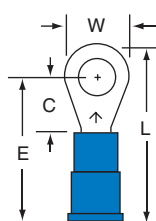
16-14



MV14-8R/L

8

16-14



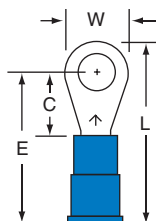
MV14-10R

Stud Size

10

Wire Range

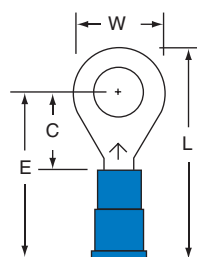
16-14



MV14-10R/L

10

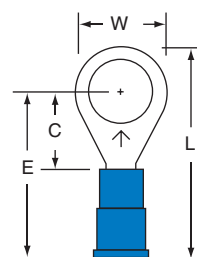
16-14



MV14-14R/S

1/4

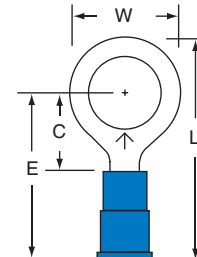
16-14



MV14-516R/S

5/16

16-14



MV14-38R

3/8

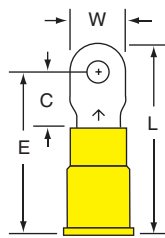
16-14

*Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Vinyl Insulated Brazen Seam 12-10 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MV10-4R/SK	01918	12-10	4	0.28	0.29	0.98	0.84	0.040	0.25	0.135	0.250	—	500
MV10-6RX	23334	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-6RK	01920	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MV10-8RX	23342	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-8RK	01922	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MV10-10RX	23359	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-10RK	01923	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MV10-14R/SX	23367	12-10	1/4	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	50	500
MV10-14R/SK	01924	12-10	1/4	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	—	500
MV10-516R/SX	23375	12-10	5/16	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	50	500
MV10-516R/SK	01926	12-10	5/16	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	—	500
MV10-38R/SX	49639	12-10	3/8	0.54	0.44	1.26	0.99	0.040	0.25	0.135	0.250	50	500
MV10-38R/SK	01928	12-10	3/8	0.54	0.44	1.26	0.99	0.040	0.25	0.135	0.250	—	500
MV10-12RX	23409	12-10	1/2	0.75	0.57	1.50	1.12	0.040	0.25	0.135	0.250	50	500
MV10-12RK	01931	12-10	1/2	0.75	0.57	1.50	1.12	0.040	0.25	0.135	0.250	—	500



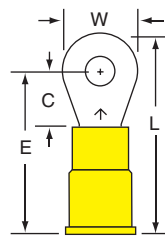
MV10-4R/S

Stud Size

4

Wire Range

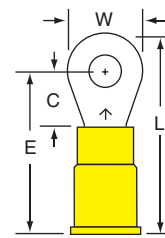
12-10



MV10-6R

6

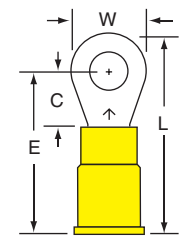
12-10



MV10-8R

8

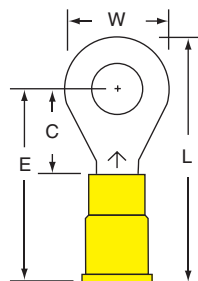
12-10



MV10-10R

10

12-10



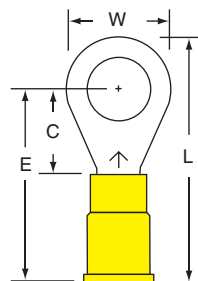
MV10-14R/S

Stud Size

1/4

Wire Range

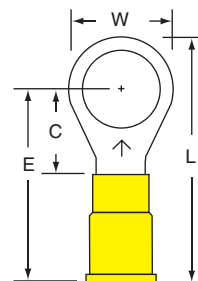
12-10



MV10-516R/S

5/16

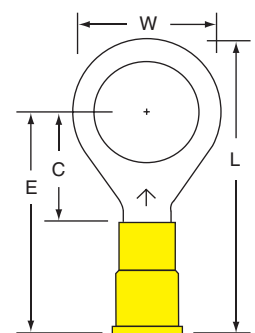
12-10



MV10-38R/S

3/8

12-10



MV10-12R

1/2

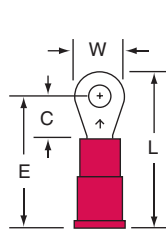
12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Vinyl Insulated Butted Seam 22-18 AWG



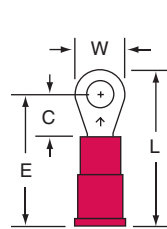
Product Number	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU18-4R/SK	01078	22-18	4	0.25	0.22	0.80	0.67	0.030	0.25	0.070	0.145	1000
MVU18-6R/SK	01080	22-18	6	0.25	0.22	0.80	0.67	0.030	0.25	0.070	0.145	1000
MVU18-8R/LK	01085	22-18	8	0.31	0.33	0.93	0.78	0.030	0.25	0.070	0.145	1000
MVU18-10R/LK	01087	22-18	10	0.31	0.33	0.93	0.78	0.030	0.25	0.070	0.145	1000
MVU18-14R/SK	01088	22-18	1/4	0.47	0.40	1.08	0.85	0.030	0.25	0.070	0.145	1000
MVU18-516R/SK	01090	22-18	5/16	0.47	0.40	1.08	0.85	0.030	0.25	0.070	0.145	1000
MVU18-38RK	01092	22-18	3/8	0.56	0.40	1.13	0.85	0.030	0.25	0.070	0.145	1000



MVU18-4R/S

Stud Size
4

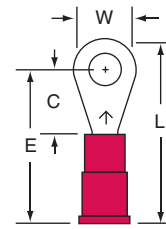
Wire Range
22-18



MVU18-6R/S

Stud Size
6

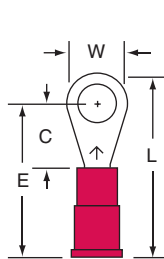
Wire Range
22-18



MVU18-8R/L

Stud Size
8

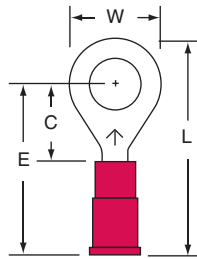
Wire Range
22-18



MVU18-10R/L

Stud Size
10

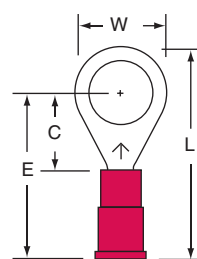
Wire Range
22-18



MVU18-14R/S

Stud Size
1/4

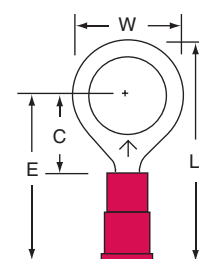
Wire Range
22-18



MVU18-516R/S

Stud Size
5/16

Wire Range
22-18



MVU18-38R

Stud Size
3/8

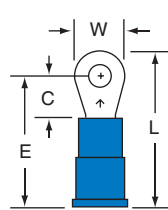
Wire Range
22-18

*Product number ending in X = box; product number ending with K = bulk.

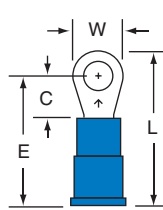
3M™ Ring Tongues — Vinyl Insulated Butted Seam 16-14 AWG



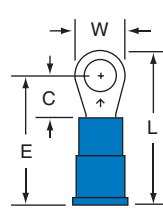
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU14-4R/SK	01444	16-14	4	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	1000
MVU14-6R/SK	01446	16-14	6	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	1000
MVU14-8R/SK	01449	16-14	8	0.25	0.22	0.80	0.67	0.030	0.25	0.090	0.170	1000
MVU14-8RK	01450	16-14	8	0.33	0.29	0.90	0.74	0.030	0.25	0.090	0.170	1000
MVU14-8R/LK	01451	16-14	8	0.31	0.33	0.93	0.78	0.030	0.25	0.090	0.170	1000
MVU14-10RK	01452	16-14	10	0.33	0.29	0.90	0.74	0.030	0.25	0.090	0.170	1000
MVU14-10R/LK	01453	16-14	10	0.31	0.33	0.93	0.78	0.030	0.25	0.090	0.170	1000
MVU14-14R/SK	01454	16-14	1/4	0.47	0.40	1.08	0.85	0.030	0.25	0.090	0.170	1000
MVU14-516R/SK	01456	16-14	5/16	0.47	0.40	1.08	0.85	0.030	0.25	0.090	0.170	1000
MVU14-38RK	01458	16-14	3/8	0.56	0.40	1.13	0.85	0.030	0.25	0.090	0.170	1000



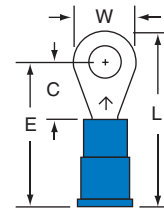
MVU14-4R/S



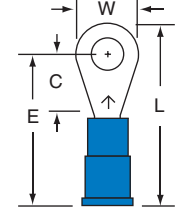
MVU14-6R/S



MVU14-8R/S



MVU14-8R



MVU14-8R/L

Stud Size

4

6

8

8

8

Wire Range

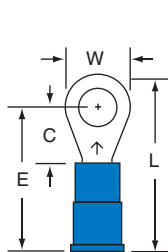
16-14

16-14

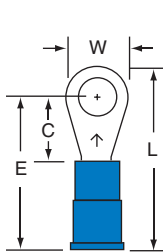
16-14

16-14

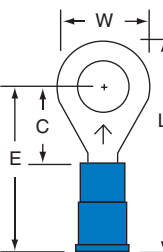
16-14



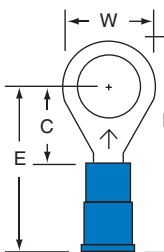
MVU14-10R



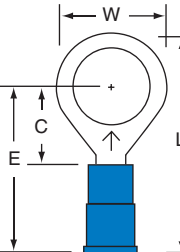
MVU14-10R/L



MVU14-14R/S



MVU14-516R/S



MVU14-38R

Stud Size

10

10

1/4

5/16

3/8

Wire Range

16-14

16-14

16-14

16-14

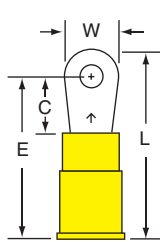
16-14

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Vinyl Insulated Butted Seam 12-10 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU10-4R/SK	01946	12-10	4	0.28	0.29	0.98	0.84	0.040	0.25	0.135	0.250	500
MVU10-6RK	01948	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-8RK	01950	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-10RK	01951	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-14R/SK	01952	12-10	1/4	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	500
MVU10-516R/SK	01954	12-10	5/16	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	500
MVU10-38R/SK	01956	12-10	3/8	0.54	0.44	1.26	0.99	0.040	0.25	0.135	0.250	500



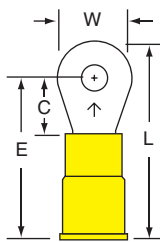
MVU10-4R/S

Stud Size

4

Wire Range

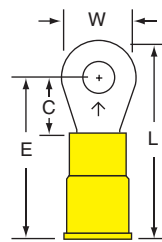
12-10



MVU10-6R

6

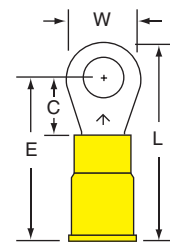
12-10



MVU10-8R

8

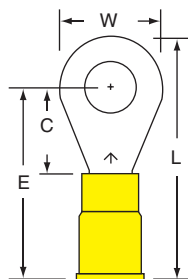
12-10



MVU10-10R

10

12-10



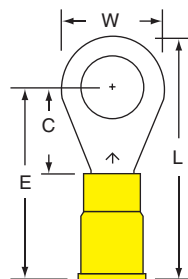
MVU10-14R/S

Stud Size

1/4

Wire Range

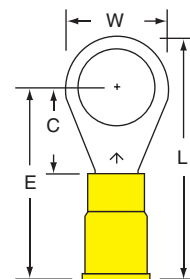
12-10



MVU10-516R/S

5/16

12-10



MVU10-38R/S

3/8

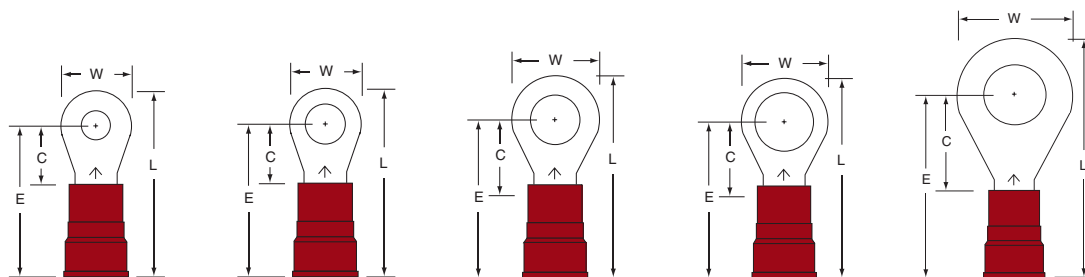
12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Nylon Insulated Braze Seam 8 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MN8-10R/SK	08267	8	10	0.47	0.40	1.26	1.03	0.050	0.31	0.175	0.340	—	200
MN8-14R/SX	15652	8	1/4	0.47	0.40	1.26	1.03	0.050	0.31	0.175	0.340	25	250
MN8-14R/SK	08268	8	1/4	0.47	0.40	1.26	1.03	0.050	0.31	0.175	0.340	—	200
MN8-516RK	08269	8	5/16	0.59	0.45	1.38	1.08	0.050	0.31	0.175	0.340	—	200
MN8-38RK	08270	8	3/8	0.59	0.45	1.38	1.08	0.050	0.31	0.175	0.340	—	200
MN8-12R/SK	08271	8	1/2	0.81	0.69	1.72	1.32	0.050	0.31	0.175	0.340	—	200



MN8-10R/S

MN8-14R/S

MN8-516R

MN8-38R

MN8-12R/S

Stud Size

10

1/4

5/16

3/8

1/2

Wire Range

8

8

8

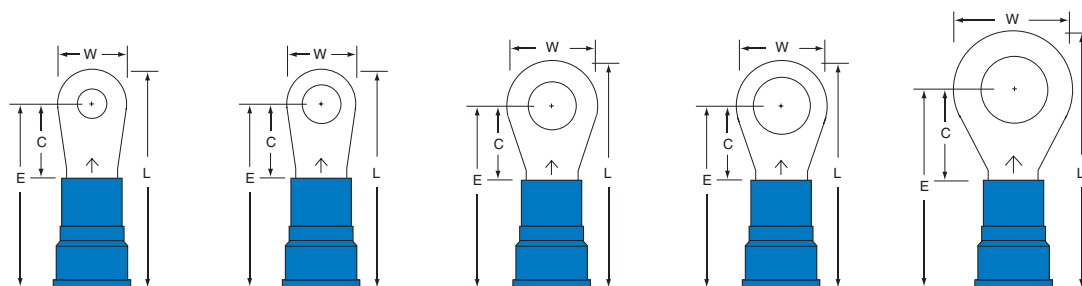
8

8

3M™ Ring Tongues — Nylon Insulated Braze Seam 6 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MN6-10R/SK	08272	6	10	0.47	0.52	1.50	1.27	0.050	0.39	0.250	0.440	—	200
MN6-14R/SX	15660	6	1/4	0.47	0.52	1.50	1.27	0.050	0.39	0.250	0.440	20	200
MN6-14R/SK	08273	6	1/4	0.47	0.52	1.50	1.27	0.050	0.39	0.250	0.440	—	200
MN6-516RK	08274	6	5/16	0.63	0.52	1.58	1.27	0.050	0.39	0.250	0.440	—	200
MN6-38RK	08275	6	3/8	0.63	0.52	1.58	1.27	0.050	0.39	0.250	0.440	—	200
MN6-12R/SK	08276	6	1/2	0.81	0.63	1.78	1.38	0.050	0.39	0.250	0.440	—	200



MN6-10R/S

MN6-14R/S

MN6-516R

MN6-38R

MN6-12R/S

Stud Size

10

1/4

5/16

3/8

1/2

Wire Range

6

6

6

6

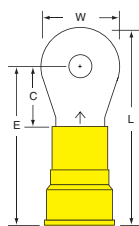
6

¹Product number ending in X = box; product number ending with K = bulk.

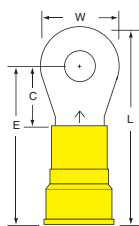
3M™ Ring Tongues — Nylon Insulated Brazed Seam 4 AWG



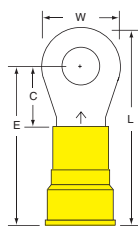
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MN4-10RK	08277	4	10	0.68	0.53	1.74	1.41	0.075	0.47	0.280	0.515	—	200
MN4-14RK	08278	4	1/4	0.68	0.53	1.74	1.41	0.075	0.47	0.280	0.515	—	200
MN4-516RK	08279	4	5/16	0.68	0.53	1.74	1.41	0.075	0.47	0.280	0.515	—	200
MN4-38RK	08280	4	3/8	0.68	0.53	1.74	1.41	0.075	0.47	0.280	0.515	—	200
MN4-12R/SK	08281	4	1/2	0.68	0.53	1.74	1.41	0.075	0.47	0.280	0.515	—	200



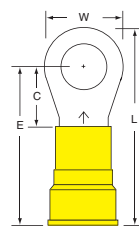
MN4-10R



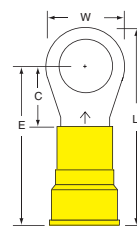
MN4-14R



MN4-516R



MN4-38R



MN4-12R/S

Stud Size

10

1/4

5/16

3/8

1/2

Wire Range

4

4

4

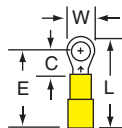
4

4

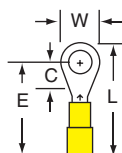
3M™ Ring Tongues — Nylon Insulated 26-24 AWG



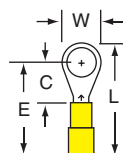
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MN24-2RK	95136	26-24	2	0.14	0.12	0.47	0.40	0.020	0.13	0.030	0.093	—	1000
MN24-4RX	11318	26-24	4	0.20	0.21	0.60	0.49	0.020	0.14	0.030	0.093	100	500
MN24-4RK	00971	26-24	4	0.20	0.21	0.60	0.49	0.020	0.14	0.030	0.093	—	1000
MN24-6RX	49587	26-24	6	0.20	0.21	0.60	0.49	0.020	0.14	0.030	0.093	100	500
MN24-6RK	00972	26-24	6	0.20	0.21	0.60	0.49	0.020	0.14	0.030	0.093	—	1000
MN24-8RX	49588	26-24	8	0.25	0.28	0.69	0.56	0.020	0.13	0.030	0.093	100	500
MN24-8RK	00973	26-24	8	0.25	0.28	0.69	0.56	0.020	0.13	0.030	0.093	—	1000
MN24-10RX	11321	26-24	10	0.25	0.28	0.69	0.56	0.020	0.13	0.030	0.093	100	500
MN24-10RK	00974	26-24	10	0.25	0.28	0.69	0.56	0.020	0.13	0.030	0.093	—	1000



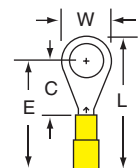
MN24-2R



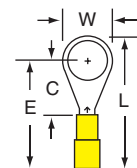
MN24-4R



MN24-6R



MN24-8R



MN24-10R

Stud Size

2

4

6

8

10

Wire Range

26-24

26-24

26-24

26-24

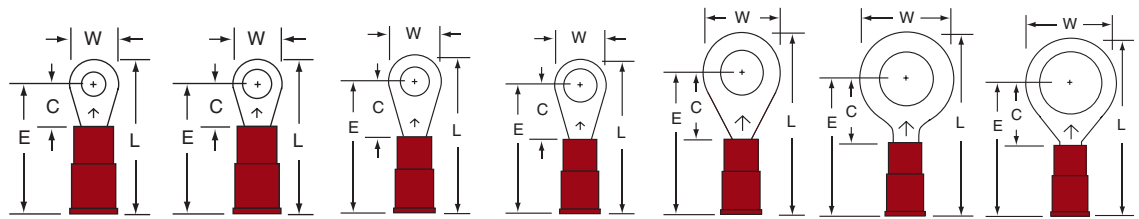
26-24

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Nylon Insulated with Insulation Grip 22-18 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG18-4R/SX	49595	22-18	4	0.25	0.22	0.79	0.66	0.030	0.25	0.070	0.145	100	500
MNG18-4R/SK	01062	22-18	4	0.25	0.22	0.79	0.66	0.030	0.25	0.070	0.145	—	1000
MNG18-6R/SX	21791	22-18	6	0.25	0.22	0.79	0.66	0.030	0.25	0.070	0.145	100	500
MNG18-6R/SK	16163	22-18	6	0.25	0.22	0.79	0.66	0.030	0.25	0.070	0.145	—	1000
MNG18-8R/LX	21809	22-18	8	0.31	0.33	0.92	0.77	0.030	0.25	0.070	0.145	100	500
MNG18-8R/LK	01069	22-18	8	0.31	0.33	0.92	0.77	0.030	0.25	0.070	0.145	—	1000
MNG18-10R/LX	21817	22-18	10	0.31	0.33	0.92	0.77	0.030	0.25	0.070	0.145	100	500
MNG18-10R/LK	01071	22-18	10	0.31	0.33	0.92	0.77	0.030	0.25	0.070	0.145	—	1000
MNG18-14R/SX	49596	22-18	1/4	0.47	0.40	1.07	0.84	0.030	0.25	0.070	0.145	100	500
MNG18-14R/SK	01072	22-18	1/4	0.47	0.40	1.07	0.84	0.030	0.25	0.070	0.145	—	1000
MNG18-516R/SX	49597	22-18	5/16	0.47	0.40	1.07	0.84	0.030	0.25	0.070	0.145	100	500
MNG18-516R/SK	01074	22-18	5/16	0.47	0.40	1.07	0.84	0.030	0.25	0.070	0.145	—	1000
MNG18-38RX	49598	22-18	3/8	0.56	0.40	1.12	0.84	0.030	0.25	0.070	0.145	100	500
MNG18-38RK	01076	22-18	3/8	0.56	0.40	1.12	0.84	0.030	0.25	0.070	0.145	—	1000



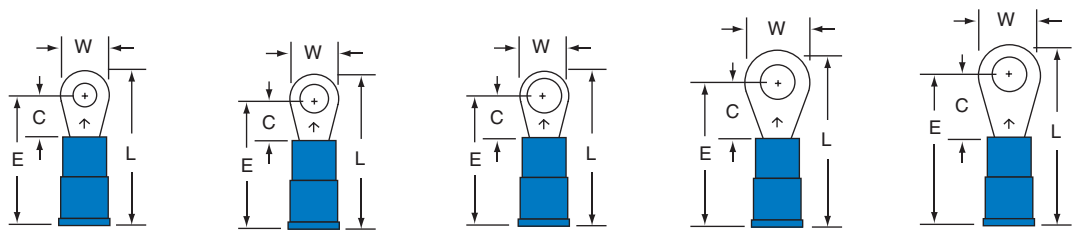
	MNG18-4R/S	MNG18-6R/S	MNG18-8R/L	MNG18-10R/L	MNG18-14R/S	MNG18-516R/S	MNG18-38R
Stud Size	4	6	8	10	1/4	5/16	3/8
Wire Range	22-18	22-18	22-18	22-18	22-18	22-18	22-18

*Product number ending in X = box; product number ending with K = bulk.

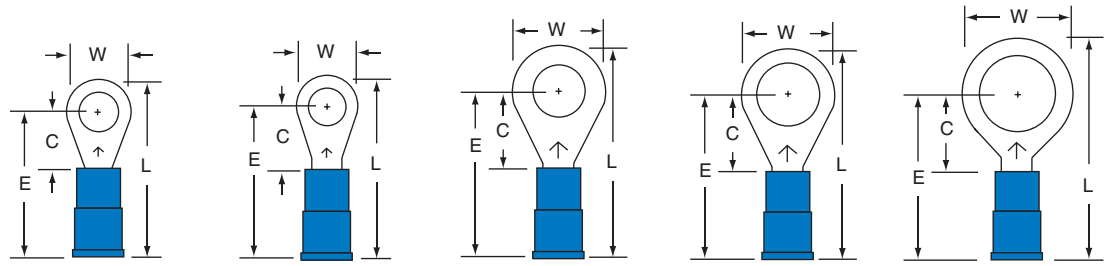
3M™ Ring Tongues — Nylon Insulated with Insulation Grip 16-14 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Terminals per Case
MNG14-4R/SX	49616	16-14	4	0.25	0.22	0.81	0.68	0.030	0.25	0.090	0.170	100	500
MNG14-4R/SK	01428	16-14	4	0.25	0.22	0.81	0.68	0.030	0.25	0.090	0.170	—	1000
MNG14-6R/SX	22468	16-14	6	0.25	0.22	0.81	0.68	0.030	0.25	0.090	0.170	100	500
MNG14-6R/SK	01430	16-14	6	0.25	0.22	0.81	0.68	0.030	0.25	0.090	0.170	—	1000
MNG14-8R/SX	49617	16-14	8	0.25	0.22	0.81	0.68	0.030	0.25	0.090	0.170	100	500
MNG14-8R/SK	01433	16-14	8	0.25	0.22	0.81	0.68	0.030	0.25	0.090	0.170	—	1000
MNG14-8RX	49618	16-14	8	0.33	0.29	0.91	0.75	0.030	0.25	0.090	0.170	100	500
MNG14-8RK	01434	16-14	8	0.33	0.29	0.91	0.75	0.030	0.25	0.090	0.170	—	1000
MNG14-8R/LX	22476	16-14	8	0.31	0.33	0.94	0.79	0.030	0.25	0.090	0.170	100	500
MNG14-8R/LK	01435	16-14	8	0.31	0.33	0.94	0.79	0.030	0.25	0.090	0.170	—	1000
MNG14-10RX	49619	16-14	10	0.33	0.29	0.91	0.75	0.030	0.25	0.090	0.170	100	500
MNG14-10RK	14150	16-14	10	0.33	0.29	0.91	0.75	0.030	0.25	0.090	0.170	—	1000
MNG14-10R/LX	22484	16-14	10	0.31	0.33	0.94	0.79	0.030	0.25	0.090	0.170	100	500
MNG14-10R/LK	01437	16-14	10	0.31	0.33	0.94	0.79	0.030	0.25	0.090	0.170	—	1000
MNG14-14R/SX	22492	16-14	1/4	0.47	0.40	1.09	0.86	0.030	0.25	0.090	0.170	100	500
MNG14-14R/SK	01438	16-14	1/4	0.47	0.40	1.09	0.86	0.030	0.25	0.090	0.170	—	1000
MNG14-516R/SX	49620	16-14	5/16	0.47	0.40	1.09	0.86	0.030	0.25	0.090	0.170	100	500
MNG14-516R/SK	01440	16-14	5/16	0.47	0.40	1.09	0.86	0.030	0.25	0.090	0.170	—	1000
MNG14-38RX	49621	16-14	3/8	0.56	0.40	1.14	0.86	0.030	0.25	0.090	0.170	100	500
MNG14-38RK	01442	16-14	3/8	0.56	0.40	1.14	0.86	0.030	0.25	0.090	0.170	—	1000



MNG14-4R/S Stud Size 4 Wire Range 16-14
 MNG14-6R/S Stud Size 6 Wire Range 16-14
 MNG14-8R/S Stud Size 8 Wire Range 16-14
 MNG14-8R Stud Size 8 Wire Range 16-14
 MNG14-8R/L Stud Size 8 Wire Range 16-14



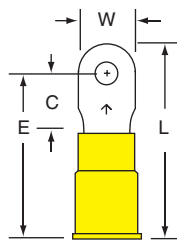
MNG14-10R Stud Size 10 Wire Range 16-14
 MNG14-10R/L Stud Size 10 Wire Range 16-14
 MNG14-14R/S Stud Size 1/4 Wire Range 16-14
 MNG14-516R/S Stud Size 5/16 Wire Range 16-14
 MNG14-38R Stud Size 3/8 Wire Range 16-14

*Product number ending in X = box; product number ending with K = bulk.

3M™ Ring Tongues — Nylon Insulated with Insulation Grip 12-10 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG10-4R/SK	01932	12-10	4	0.28	0.29	0.98	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-6RX	23425	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-6RK	01934	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-8RX	23433	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-8RK	01936	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-10RX	23441	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-10RK	01937	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-14R/SX	23458	12-10	1/4	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	50	500
MNG10-14R/SK	01938	12-10	1/4	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	—	500
MNG10-516R/SX	49640	12-10	5/16	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	50	500
MNG10-516R/SK	01940	12-10	5/16	0.53	0.44	1.26	0.99	0.040	0.25	0.135	0.250	—	500
MNG10-38R/SX	49641	12-10	3/8	0.54	0.44	1.26	0.99	0.040	0.25	0.135	0.250	50	500
MNG10-38R/SK	01942	12-10	3/8	0.54	0.44	1.26	0.99	0.040	0.25	0.135	0.250	—	500



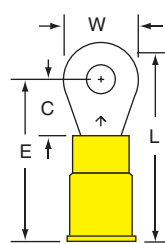
MNG10-4R/S

Stud Size

4

Wire Range

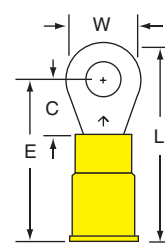
12-10



MNG10-6R

6

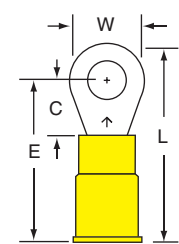
12-10



MNG10-8R

8

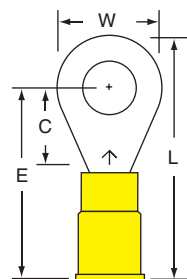
12-10



MNG10-10R

10

12-10



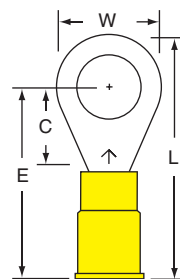
MNG10-14R/S

Stud Size

1/4

Wire Range

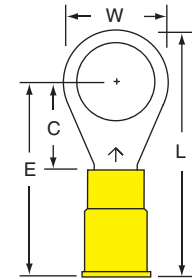
12-10



MNG10-516R/S

5/16

12-10



MNG10-38R/S

3/8

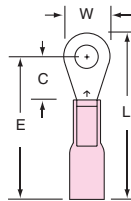
12-10

¹Product number ending in X = box; product number ending with K = bulk.

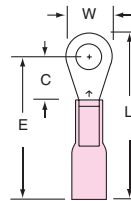
3M™ Ring Tongues — Heat Shrink Brazed Seam 22-18 AWG



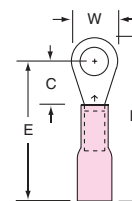
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MH18-6R/LX	06344	22-18	6	0.31	0.15	1.00	0.84	0.030	0.25	0.070	25	100
MH18-6R/LK	06345	22-18	6	0.31	0.15	1.00	0.84	0.030	0.25	0.070	—	250
MH18-8R/LX	06348	22-18	8	0.31	0.18	1.00	0.84	0.030	0.25	0.070	25	100
MH18-8R/LK	06349	22-18	8	0.31	0.18	1.00	0.84	0.030	0.25	0.070	—	250
MH18-10R/LX	06350	22-18	10	0.31	0.20	1.00	0.84	0.030	0.25	0.070	25	100
MH18-10R/LK	06351	22-18	10	0.31	0.20	1.00	0.84	0.030	0.25	0.070	—	250



MH18-6R/L



MH18-8R/L



MH18-10R/L

Stud Size

6

8

10

Wire Range

22-18

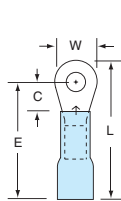
22-18

22-18

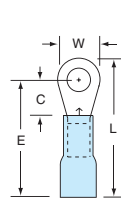
3M™ Ring Tongues — Heat Shrink Brazed Seam 16-14 AWG



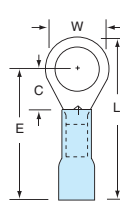
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MH14-6R/LX	06320	16-14	6	0.31	0.15	1.00	0.84	0.030	0.25	0.090	25	100
MH14-6R/LK	06321	16-14	6	0.31	0.15	1.00	0.84	0.030	0.25	0.090	—	250
MH14-8R/LX	06324	16-14	8	0.31	0.18	1.00	0.84	0.030	0.25	0.090	25	100
MH14-8R/LK	06325	16-14	8	0.31	0.18	1.00	0.84	0.030	0.25	0.090	—	250
MH14-10R/LX	06326	16-14	10	0.31	0.20	1.00	0.84	0.030	0.25	0.090	25	100
MH14-10R/LK	06327	16-14	10	0.31	0.20	1.00	0.84	0.030	0.25	0.090	—	250
MH14-14R/SX	06330	16-14	1/4	0.47	0.26	1.1	0.86	0.030	0.25	0.090	25	100
MH14-14R/SK	06331	16-14	1/4	0.47	0.26	1.1	0.86	0.030	0.25	0.090	—	250
MH14-516R/SX	06336	16-14	5/16	0.47	0.33	1.1	0.86	0.030	0.25	0.090	25	100
MH14-38RX	06334	16-14	3/8	0.56	0.28	1.1	0.87	0.030	0.25	0.090	25	100
MH14-38RK	06335	16-14	3/8	0.56	0.28	1.1	0.87	0.030	0.25	0.090	—	250



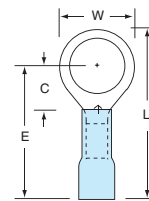
MH14-6R/L



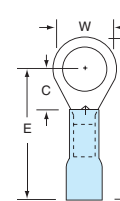
MH14-8R/L



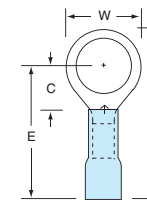
MH14-10R/L



MH14-14R/S



MH14-516R/S



MH14-38R

Stud Size

6

8

10

1/4

5/16

3/8

Wire Range

16-14

16-14

16-14

16-14

16-14

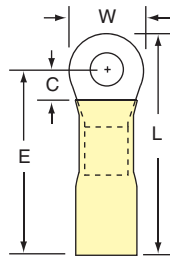
16-14

¹Product number ending in X = box; product number ending with K = bulk.

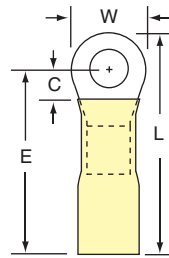
3M™ Ring Tongues — Heat Shrink Brazed Seam 12-10



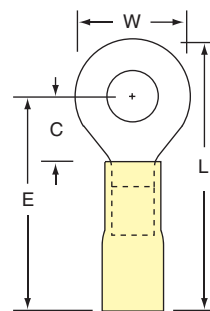
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Carton	Case
MH10-8RX	06302	12-10	8	0.38	0.19	1.1	0.91	0.040	0.25	0.135	25	100
MH10-10RX	06305	12-10	10	0.38	0.21	1.1	0.91	0.040	0.25	0.135	25	100
MH10-10RK	06306	12-10	10	0.38	0.21	1.1	0.91	0.040	0.25	0.135	—	250
MH10-14RX	06309	12-10	1/4	0.59	0.29	1.2	0.90	0.040	0.25	0.135	25	100
MH10-14RK	06359	12-10	1/4	0.59	0.29	1.2	0.90	0.040	0.25	0.135	—	250
MH10-38RX	06312	12-10	3/8	0.59	0.29	1.2	0.90	0.040	0.25	0.135	25	100
MH10-38RK	06313	12-10	3/8	0.59	0.29	1.2	0.90	0.040	0.25	0.135	—	250



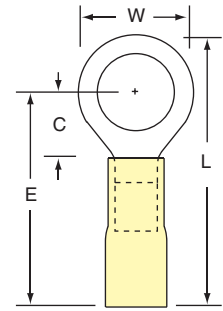
MH10-8R



MH10-10R



MH10-14R



MH10-38R

Stud Size	8	10	1/4	3/8
Wire Range	12-10	12-10	12-10	12-10

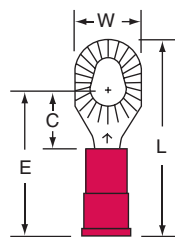
¹Product number ending in X = box; product number ending with K = bulk.

Multi-Stud Ring Tongues

3M™ Multi-Stud Ring Tongues — Vinyl Insulated Brazed Seam



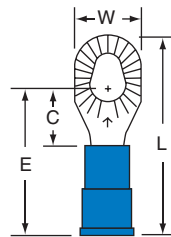
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MV18-610RX	14093	22-18	6/8/10	0.34	0.31	1.01	0.76	0.030	0.25	0.070	0.145	100	500
MV18-610RK	01342	22-18	6/8/10	0.34	0.31	1.01	0.76	0.030	0.25	0.070	0.145	—	1000
MV14-610RX	14119	16-14	6/8/10	0.34	0.31	1.01	0.76	0.030	0.25	0.090	0.170	100	500
MV14-610RK	01851	16-14	6/8/10	0.34	0.31	1.01	0.76	0.030	0.25	0.090	0.170	—	1000
MV10-610RX	14127	12-10	6/8/10	0.39	0.35	1.19	0.80	0.040	0.25	0.135	0.250	50	500
MV10-610RK	02099	12-10	6/8/10	0.39	0.35	1.19	0.80	0.040	0.25	0.135	0.250	—	500



MV18-610R

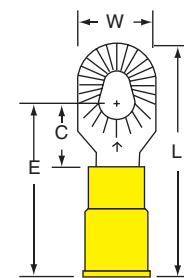
Stud Size
Wire Range

6/8/10
22-18



MV14-610R

6/8/10
16-14



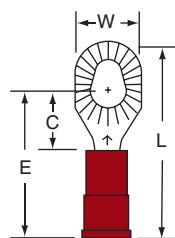
MV10-610R

6/8/10
12-10

3M™ Multi-Stud Ring Tongues — Nylon Insulated with Insulation Grip



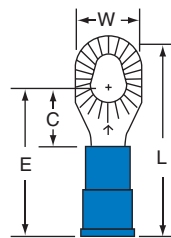
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MNG18-610RX	49611	22-18	6/8/10	0.34	0.31	1.00	0.75	0.030	0.25	0.070	0.145	100	500
MNG18-610RK	01344	22-18	6/8/10	0.34	0.31	1.00	0.75	0.030	0.25	0.070	0.145	—	1000
MNG14-610RX	49636	16-14	6/8/10	0.34	0.31	1.02	0.77	0.030	0.25	0.090	0.170	100	500
MNG14-610RK	01853	16-14	6/8/10	0.34	0.31	1.02	0.77	0.030	0.25	0.090	0.170	—	1000
MNG10-610RX	49646	12-10	6/8/10	0.39	0.35	1.19	0.80	0.040	0.25	0.135	0.250	50	100
MNG10-610RK	02100	12-10	6/8/10	0.39	0.35	1.19	0.80	0.040	0.25	0.135	0.250	—	500



MNG18-610R

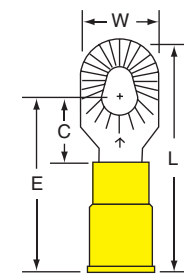
Stud Size
Wire Range

6/8/10
22-18



MNG14-610R

6/8/10
16-14



MNG10-610R

6/8/10
12-10

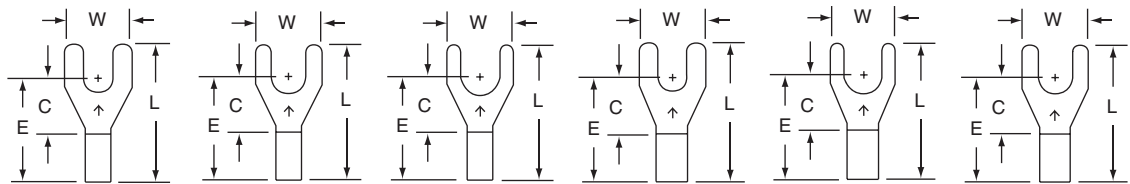
¹Product number ending in X = box; product number ending with K = bulk.

Standard Forks

3M™ Standard Forks — Non-Insulated Brazed Seam

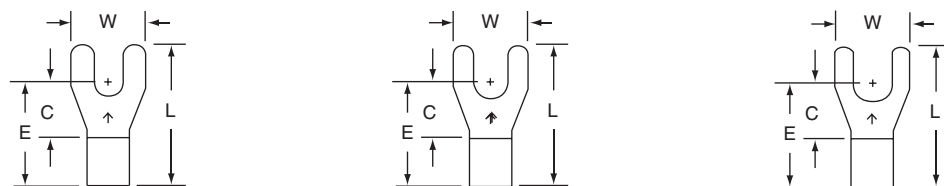


Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Carton	Case
M18-6FX	21858	22-18	6	0.34	0.29	0.70	0.54	0.030	0.25	0.070	100	500
M18-6FK	01150	22-18	6	0.34	0.29	0.70	0.54	0.030	0.25	0.070	—	1000
M18-8FX	21866	22-18	8	0.34	0.29	0.70	0.54	0.030	0.25	0.070	100	500
M18-8FK	01152	22-18	8	0.34	0.29	0.70	0.54	0.030	0.25	0.070	—	1000
M18-10FX	49599	22-18	10	0.34	0.29	0.70	0.54	0.030	0.25	0.070	100	500
M18-10FK	01154	22-18	10	0.34	0.29	0.70	0.54	0.030	0.25	0.070	—	1000
M14-6FX	49622	16-14	6	0.34	0.29	0.70	0.54	0.030	0.25	0.090	100	500
M14-6FK	01516	16-14	6	0.34	0.29	0.70	0.54	0.030	0.25	0.090	—	1000
M14-8FK	01518	16-14	8	0.34	0.29	0.70	0.54	0.030	0.25	0.090	—	1000
M14-10FX	22542	16-14	10	0.34	0.29	0.70	0.54	0.030	0.25	0.090	100	500
M14-10FK	01520	16-14	10	0.34	0.29	0.70	0.54	0.030	0.25	0.090	—	1000
M10-6FK	01972	12-10	6	0.38	0.29	0.73	0.54	0.040	0.25	0.135	—	500
M10-8FX	23581	12-10	8	0.38	0.29	0.73	0.54	0.040	0.25	0.135	50	500
M10-8FK	01973	12-10	8	0.38	0.29	0.73	0.54	0.040	0.25	0.135	—	500
M10-10FX	23599	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	50	500
M10-10FK	01974	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	—	500



M18-6F M18-8F M18-10F M14-6F M14-8F M14-10F

Stud Size	6	8	10	6	8	10
Wire Range	22-18	22-18	22-18	16-14	16-14	16-14



M10-6F M10-8F M10-10F

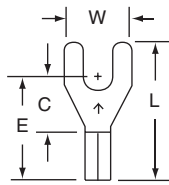
Stud Size	6	8	10
Wire Range	12-10	12-10	12-10

*Product number ending in X = box; product number ending with K = bulk.

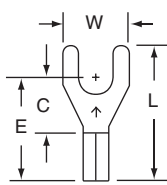
3M™ Standard Forks — Non-Insulated Butted Seam



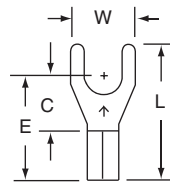
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MU18-6FK	01144	22-18	6	0.34	0.29	0.70	0.54	0.030	0.25	0.070	1000	
MU18-8FK	01146	22-18	8	0.34	0.29	0.70	0.54	0.030	0.25	0.070	1000	
MU14-8FK	01512	16-14	8	0.34	0.29	0.70	0.54	0.030	0.25	0.090	1000	
MU14-10FK	01514	16-14	10	0.34	0.29	0.70	0.54	0.030	0.25	0.090	1000	
MU10-8FK	01970	12-10	8	0.38	0.29	0.73	0.54	0.040	0.25	0.135	500	
MU10-10FK	01971	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	500	



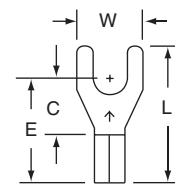
MU18-6F



MU18-8F



MU14-8F



MU14-10F

Stud Size

6

8

8

10

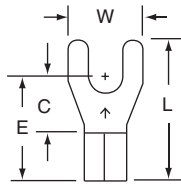
Wire Range

22-18

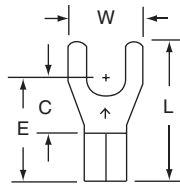
22-18

16-14

16-14



MU10-8F



MU10-10F

Stud Size

8

10

Wire Range

12-10

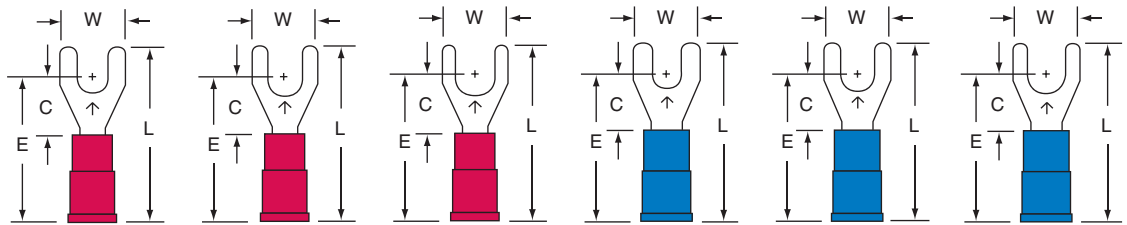
12-10

¹Product number ending in X = box; product number ending with K = bulk.

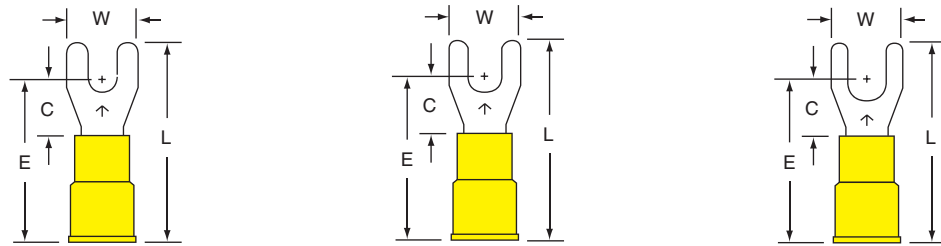
3M™ Standard Forks — Vinyl Insulated Brazen Seam



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MV18-6FX	21882	22-18	6	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	100	500
MV18-6FK	01162	22-18	6	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	—	1000
MV18-8FX	21890	22-18	8	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	100	500
MV18-8FK	01164	22-18	8	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	—	1000
MV18-10FX	21908	22-18	10	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	100	500
MV18-10FK	01166	22-18	10	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	—	1000
MV14-6FX	22559	16-14	6	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	100	500
MV14-6FK	01528	16-14	6	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	—	1000
MV14-8FX	22567	16-14	8	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	100	500
MV14-8FK	01530	16-14	8	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	—	1000
MV14-10FX	22575	16-14	10	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	100	500
MV14-10FK	01532	16-14	10	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	—	1000
MV10-6FX	23607	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-6FK	01978	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MV10-8FX	23615	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-8FK	01979	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MV10-10FX	23623	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-10FK	01980	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500



	MV18-6F	MV18-8F	MV18-10F	MV14-6F	MV14-8F	MV14-10F
Stud Size	6	8	10	6	8	10
Wire Range	22-18	22-18	22-18	16-14	16-14	16-14



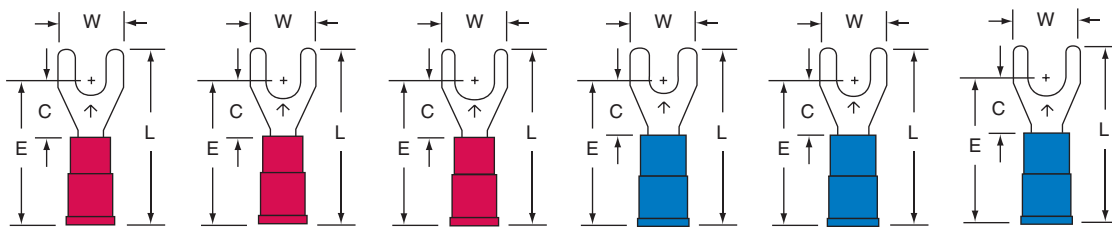
	MV10-6F	MV10-8F	MV10-10F
Stud Size	6	8	10
Wire Range	12-10	12-10	12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Standard Forks — Vinyl Insulated Butted Seam



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton Case
MVU18-6FK	01174	22-18	6	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	1000
MVU18-8FK	01176	22-18	8	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	1000
MVU18-10FK	01178	22-18	10	0.34	0.29	0.90	0.74	0.030	0.25	0.070	0.145	1000
MVU14-6FK	01540	16-14	6	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	1000
MVU14-8FK	01542	16-14	8	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	1000
MVU14-10FK	01544	16-14	10	0.34	0.29	0.90	0.74	0.030	0.25	0.090	0.170	1000
MVU10-6FK	01984	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-8FK	01985	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-10FK	01986	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500



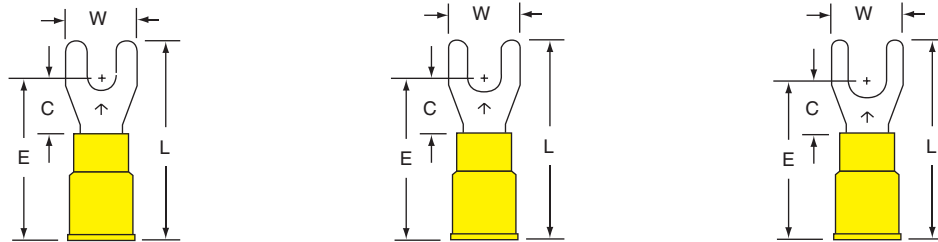
MVU18-6F MVU18-8F MVU18-10F MVU14-6F MVU14-8F MVU14-10F

Stud Size

6 8 10 6 8 10

Wire Range

22-18 22-18 22-18 16-14 16-14 16-14



MVU10-6F MVU10-8F MVU10-10F

Stud Size

6 8 10

Wire Range

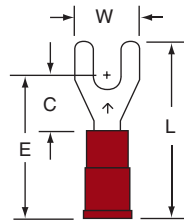
12-10 12-10 12-10

*Product number ending in X = box; product number ending with K = bulk.

3M™ Standard Forks — Nylon Insulated with Insulation Grip



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG18-6FX	21916	22-18	6	0.34	0.29	0.89	0.73	0.030	0.25	0.070	0.145	100	500
MNG18-6FK	01168	22-18	6	0.34	0.29	0.89	0.73	0.030	0.25	0.070	0.145	—	1000
MNG18-8FX	21924	22-18	8	0.34	0.29	0.89	0.73	0.030	0.25	0.070	0.145	100	500
MNG18-8FK	01170	22-18	8	0.34	0.29	0.89	0.73	0.030	0.25	0.070	0.145	—	1000
MNG18-10FK	01172	22-18	10	0.34	0.29	0.89	0.73	0.030	0.25	0.070	0.145	—	1000
MNG14-6FX	22583	16-14	6	0.34	0.29	0.91	0.75	0.030	0.25	0.090	0.170	100	500
MNG14-6FK	01534	16-14	6	0.34	0.29	0.91	0.75	0.030	0.25	0.090	0.170	—	1000
MNG14-8FX	22591	16-14	8	0.34	0.29	0.91	0.75	0.030	0.25	0.090	0.170	100	500
MNG14-8FK	01536	16-14	8	0.34	0.29	0.91	0.75	0.030	0.25	0.090	0.170	—	1000
MNG14-10FX	22609	16-14	10	0.34	0.29	0.91	0.75	0.030	0.25	0.090	0.170	100	500
MNG14-10FK	01538	16-14	10	0.34	0.29	0.91	0.75	0.030	0.25	0.090	0.170	—	1000
MNG10-6FK	01981	12-10	6	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-8FX	23649	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-8FK	01982	12-10	8	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-10FX	23656	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-10FK	01983	12-10	10	0.38	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500



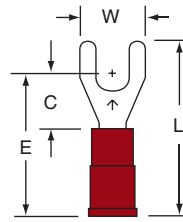
MNG18-6F

Stud Size

6

Wire Range

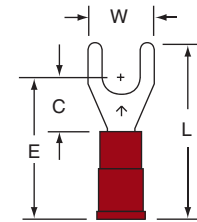
22-18



MNG18-8F

8

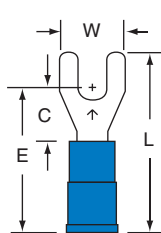
22-18



MNG18-10F

10

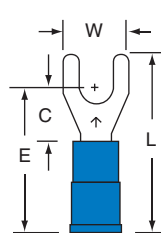
22-18



MNG14-6F

6

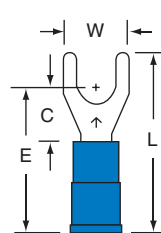
16-14



MNG14-8F

8

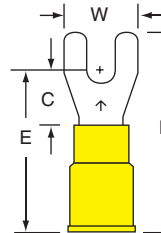
16-14



MNG14-10F

10

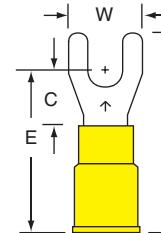
16-14



MNG10-6F

6

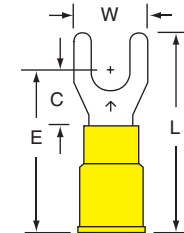
12-10



MNG10-8F

8

12-10



MNG10-10F

10

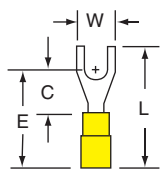
12-10

¹Product number ending in X = box; product number ending with K = bulk.

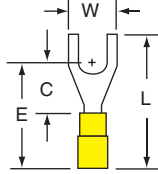
3M™ Standard Forks — Nylon Insulated

Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MN24-4FX*	95166	26-24	4	0.20	0.21	0.61	0.49	0.020	0.14	0.030	0.093	100	500
MN24-4FK*	95165	26-24	4	0.20	0.21	0.61	0.49	0.020	0.14	0.030	0.093	—	1000
MN24-6FX*	95172	26-24	6	0.25	0.28	0.69	0.56	0.020	0.13	0.030	0.093	100	500
MN24-6FK*	95171	26-24	6	0.25	0.28	0.69	0.56	0.020	0.13	0.030	0.093	—	1000

* Not UL Listed or CSA Certified



MN24-4F



MN24-6F

Stud Size

4

6

Wire Range

26-24

26-24

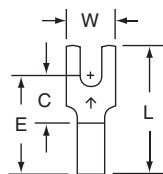
*Product number ending in X = box; product number ending with K = bulk.

Block Forks

3M™ Block Forks — Non-Insulated Brazed Seam 22-18 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M18-4FB/SK	02248	22-18	4	0.25	0.25	0.65	0.50	0.030	0.25	0.070	—	1000
M18-6FB/SX	49600	22-18	6	0.25	0.25	0.65	0.50	0.030	0.25	0.070	100	500
M18-6FB/SK	01202	22-18	6	0.25	0.25	0.65	0.50	0.030	0.25	0.070	—	1000
M18-6FBX	21940	22-18	6	0.30	0.25	0.65	0.50	0.030	0.25	0.070	100	500
M18-6FBK	01203	22-18	6	0.30	0.25	0.65	0.50	0.030	0.25	0.070	—	1000
M18-8FBX	21957	22-18	8	0.30	0.25	0.65	0.50	0.030	0.25	0.070	100	500
M18-8FBK	01204	22-18	8	0.30	0.25	0.65	0.50	0.030	0.25	0.070	—	1000
M18-10FBX	49601	22-18	10	0.30	0.25	0.65	0.50	0.030	0.25	0.070	100	500
M18-10FBK	01205	22-18	10	0.30	0.25	0.65	0.50	0.030	0.25	0.070	—	1000



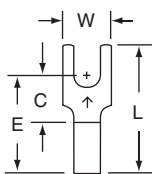
M18-4FB/S

Stud Size

4

Wire Range

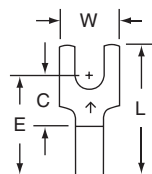
22-18



M18-6FB/S

6

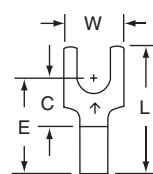
22-18



M18-6FB

6

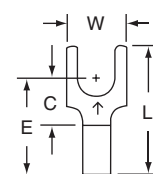
22-18



M18-8FB

8

22-18



M18-10FB

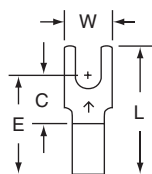
10

22-18

3M™ Block Forks — Non-Insulated Brazed Seam 16-14 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M14-6FB/SX	49623	16-14	6	0.25	0.25	0.65	0.50	0.030	0.25	0.090	100	500
M14-6FB/SK	01568	16-14	6	0.25	0.25	0.65	0.50	0.030	0.25	0.090	—	1000
M14-6FBX	22617	16-14	6	0.30	0.25	0.65	0.50	0.030	0.25	0.090	100	500
M14-6FBK	01569	16-14	6	0.30	0.25	0.65	0.50	0.030	0.25	0.090	—	1000
M14-8FBX	22625	16-14	8	0.30	0.25	0.65	0.50	0.030	0.25	0.090	100	500
M14-8FBK	01570	16-14	8	0.30	0.25	0.65	0.50	0.030	0.25	0.090	—	1000
M14-10FBX	22633	16-14	10	0.30	0.25	0.65	0.50	0.030	0.25	0.090	100	500
M14-10FBK	01571	16-14	10	0.30	0.25	0.65	0.50	0.030	0.25	0.090	—	1000



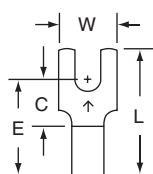
M14-6FB/S

Stud Size

6

Wire Range

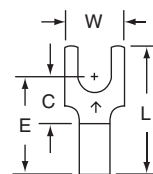
16-14



M14-6FB

6

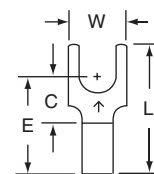
16-14



M14-8FB

8

16-14



M14-10FB

10

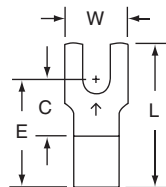
16-14

¹Product number ending in X = box; product number ending with K = bulk.

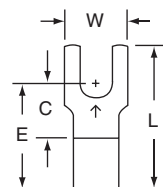
3M™ Block Forks — Non-Insulated Brazed Seam 12-10 AWG



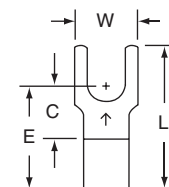
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
M10-6FBK	02008	12-10	6	0.32	0.29	0.73	0.54	0.040	0.25	0.135	—	500
M10-8FBX	23672	12-10	8	0.32	0.29	0.73	0.54	0.040	0.25	0.135	50	500
M10-8FBK	02009	12-10	8	0.32	0.29	0.73	0.54	0.040	0.25	0.135	—	500
M10-10FBX	23680	12-10	10	0.32	0.29	0.73	0.54	0.040	0.25	0.135	50	500
M10-10FBK	02010	12-10	10	0.32	0.29	0.73	0.54	0.040	0.25	0.135	—	500



M10-6FB
Stud Size
6
Wire Range
12-10



M10-8FB
Stud Size
8
Wire Range
12-10



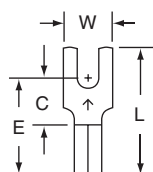
M10-10FB
Stud Size
10
Wire Range
12-10

Stud Size
Wire Range

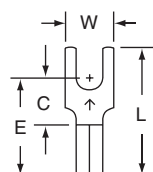
3M™ Block Forks — Non-Insulated Butted Seam 22-18 AWG



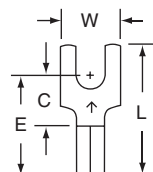
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU18-4FB/SK	02263	22-18	4	0.25	0.25	0.65	0.50	0.030	0.25	0.070	1000
MU18-6FB/SK	01198	22-18	6	0.25	0.25	0.65	0.50	0.030	0.25	0.070	1000
MU18-6FBK	01199	22-18	6	0.30	0.25	0.65	0.50	0.030	0.25	0.070	1000
MU18-8FBK	01200	22-18	8	0.30	0.25	0.65	0.50	0.030	0.25	0.070	1000
MU18-10FBK	01201	22-18	10	0.30	0.25	0.65	0.50	0.030	0.25	0.070	1000



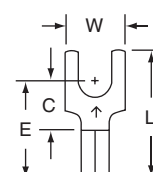
MU18-4FB/S
Stud Size
4
Wire Range
22-18



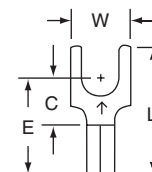
MU18-6FB/S
Stud Size
6
Wire Range
22-18



MU18-6FB
Stud Size
6
Wire Range
22-18



MU18-8FB
Stud Size
8
Wire Range
22-18



MU18-10FB
Stud Size
10
Wire Range
22-18

Stud Size
Wire Range

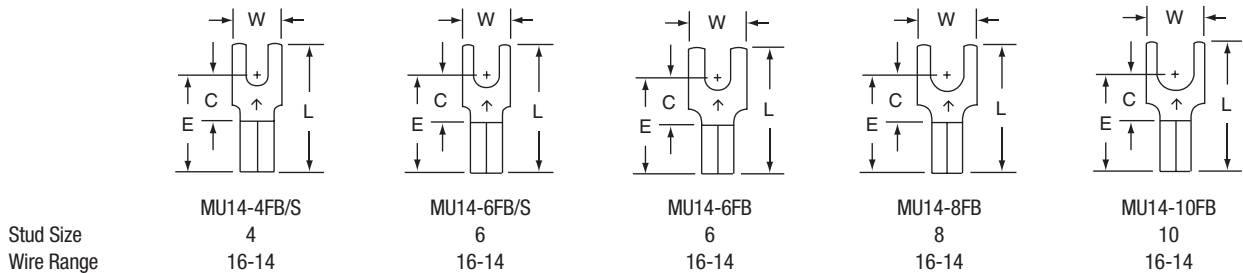
¹Product number ending in X = box; product number ending with K = bulk.



3M™ Block Forks — Non-Insulated Butted Seam 16-14 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU14-4FB/SK	02264	16-14	4	0.25	0.25	0.65	0.50	0.030	0.25	0.090	1000
MU14-6FB/SK	01564	16-14	6	0.25	0.25	0.65	0.50	0.030	0.25	0.090	1000
MU14-6FBK	01565	16-14	6	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
MU14-8FBK	01566	16-14	8	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
MU14-10FBK	01567	16-14	10	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000

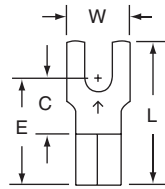


¹Product number ending in X = box; product number ending with K = bulk.

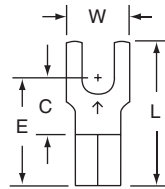
3M™ Block Forks — Non-Insulated Butted Seam 12-10 AWG



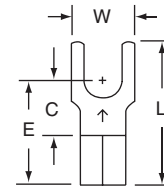
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU10-6FBK	02005	12-10	6	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500
MU10-8FBK	02006	12-10	8	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500
MU10-10FBK	02007	12-10	10	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500



MU10-6FB



MU10-8FB



MU10-10FB

Stud Size

6

8

10

Wire Range

12-10

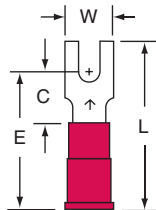
12-10

12-10

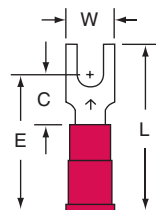
3M™ Block Forks — Vinyl Insulated Brazed Seam 22-18 AWG



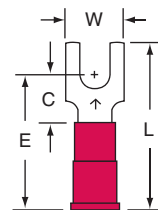
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MV18-4FB/SK	02279	22-18	4	0.25	0.25	0.85	0.70	0.030	0.25	0.070	0.145	—	1000
MV18-6FB/SX	49602	22-18	6	0.25	0.25	0.85	0.70	0.030	0.25	0.070	0.145	100	500
MV18-6FB/SK	01210	22-18	6	0.25	0.25	0.85	0.70	0.030	0.25	0.070	0.145	—	1000
MV18-6FBX	21973	22-18	6	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	100	500
MV18-6FBK	01211	22-18	6	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	—	1000
MV18-8FBX	21999	22-18	8	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	100	500
MV18-8FBK	01212	22-18	8	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	—	1000
MV18-10FBX	22005	22-18	10	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	100	500
MV18-10FBK	01213	22-18	10	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	—	1000



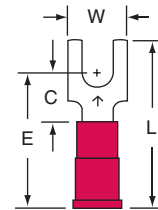
MV18-4FB/S



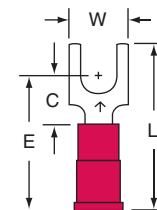
MV18-6FB/S



MV18-6FB



MV18-8FB



MV18-10FB

Stud Size

4

6

6

8

10

Wire Range

22-18

22-18

22-18

22-18

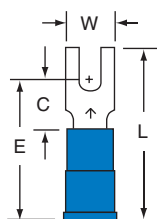
22-18

¹Product number ending in X = box; product number ending with K = bulk.

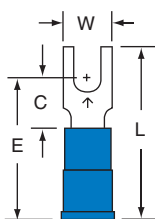
3M™ Block Forks — Vinyl Insulated Brazed Seam 16-14 AWG



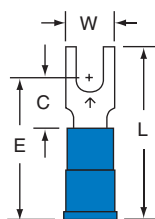
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	per Case
MV14-4FB/SK	02280	16-14	4	0.25	0.25	0.85	0.70	0.030	0.25	0.090	0.170	—	1000
MV14-6FB/SX	49624	16-14	6	0.25	0.25	0.85	0.70	0.030	0.25	0.090	0.170	100	500
MV14-6FB/SK	01576	16-14	6	0.25	0.25	0.85	0.70	0.030	0.25	0.090	0.170	—	1000
MV14-6FBX	22641	16-14	6	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	100	500
MV14-6FBK	01577	16-14	6	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	—	1000
MV14-8FBX	22658	16-14	8	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	100	500
MV14-8FBK	01578	16-14	8	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	—	1000
MV14-10FBX	22666	16-14	10	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	100	500
MV14-10FBK	01579	16-14	10	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	—	1000



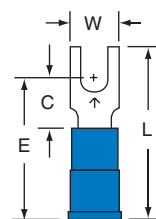
MV14-4FB/S



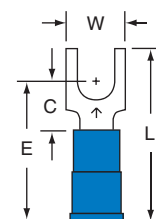
MV14-6FB/S



MV14-6FB



MV14-8FB



MV14-10FB

Stud Size

4

6

6

8

10

Wire Range

16-14

16-14

16-14

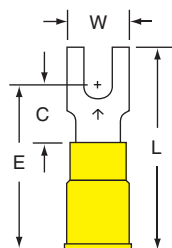
16-14

16-14

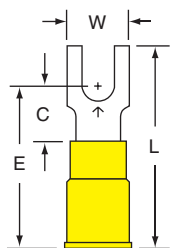
3M™ Block Forks — Vinyl Insulated Brazed Seam 12-10 AWG



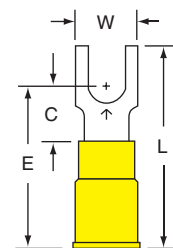
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	per Case
MV10-6FBX	23698	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-6FBK	02014	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MV10-8FBX	23706	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-8FBK	02015	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MV10-10FBX	23714	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MV10-10FBK	02016	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500



MV10-6FB



MV10-8FB



MV10-10FB

Stud Size

6

8

10

Wire Range

12-10

12-10

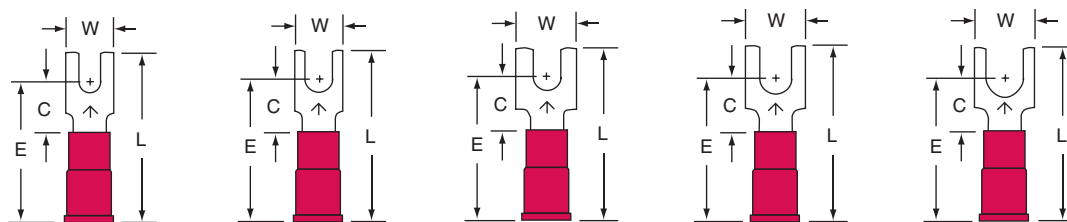
12-10

*Product number ending in X = box; product number ending with K = bulk.

3M™ Block Forks — Vinyl Insulated Butted Seam 22-18 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU18-4FB/SK	02253	22-18	4	0.25	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MVU18-6FB/SK	01218	22-18	6	0.25	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MVU18-6FBK	01219	22-18	6	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MVU18-8FBK	01220	22-18	8	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MVU18-10FBK	01221	22-18	10	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000



MVU18-4FB/S

MVU18-6FB/S

MVU18-6FB

MVU18-8FB

MVU18-10FB

Stud Size

4

6

6

8

10

Wire Range

22-18

22-18

22-18

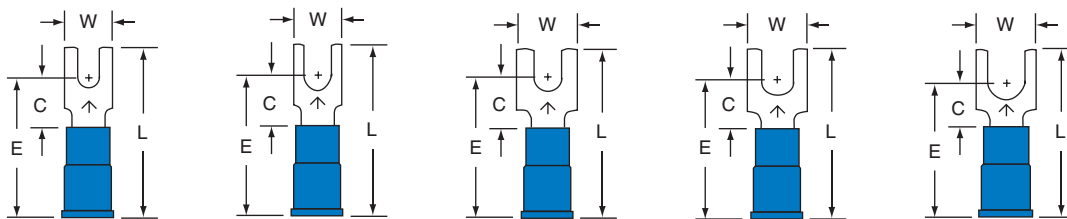
22-18

22-18

3M™ Block Forks — Vinyl Insulated Butted Seam 16-14 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU14-4FB/SK	02258	16-14	4	0.25	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MVU14-6FB/SK	01584	16-14	6	0.25	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MVU14-6FBK	01585	16-14	6	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MVU14-8FBK	01586	16-14	8	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MVU14-10FBK	01587	16-14	10	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000



MVU14-4FB/S

MVU14-6FB/S

MVU14-6FB

MVU14-8FB

MVU14-10FB

Stud Size

4

6

6

8

10

Wire Range

16-14

16-14

16-14

16-14

16-14

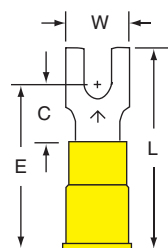
¹Product number ending in X = box; product number ending with K = bulk.



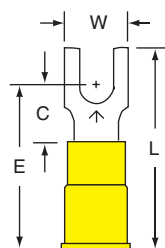
3M™ Block Forks — Vinyl Insulated Butted Seam 12-10 AWG



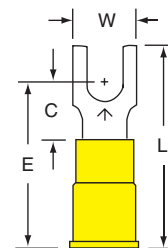
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU10-6FBK	02020	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-8FBK	02021	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-10FBK	02022	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500



MVU10-6FB



MVU10-8FB



MVU10-10FB

Stud Size

6

8

10

Wire Range

12-10

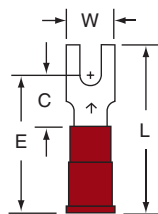
12-10

12-10

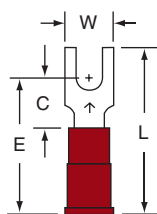
3M™ Block Forks — Nylon Insulated with Insulation Grip 22-18 AWG



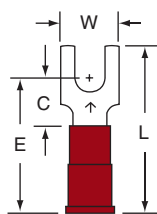
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG18-4FB/SK	02261	22-18	4	0.25	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-6FB/SX	49603	22-18	6	0.25	0.25	0.84	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-6FB/SK	01214	22-18	6	0.25	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-6FBX	22013	22-18	6	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-6FBK	01215	22-18	6	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-8FBX	22021	22-18	8	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-8FBK	01216	22-18	8	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-10FBX	22039	22-18	10	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-10FBK	01217	22-18	10	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000



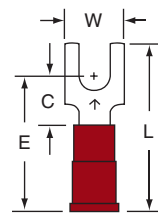
MNG18-4FB/S



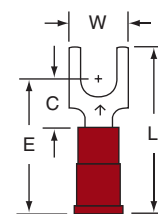
MNG18-6FB/S



MNG18-6FB



MNG18-8FB



MNG18-10FB

Stud Size

4

6

6

8

10

Wire Range

22-18

22-18

22-18

22-18

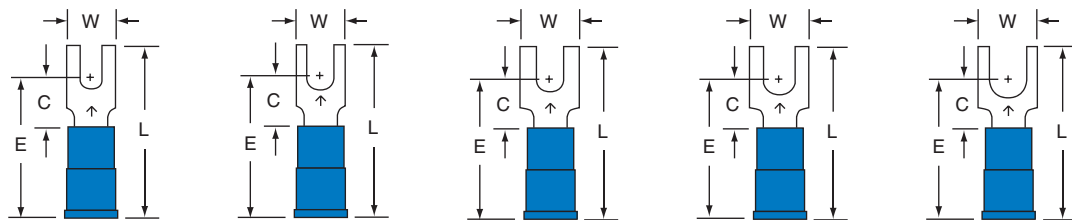
22-18

*Product number ending in X = box; product number ending with K = bulk.

3M™ Block Forks — Nylon Insulated with Insulation Grip 16-14 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG14-4FB/SK	02262	16-14	4	0.25	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-6FB/SX	49625	16-14	6	0.25	0.25	0.86	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-6FB/SK	01580	16-14	6	0.25	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-6FBX	22674	16-14	6	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-6FBK	01581	16-14	6	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-8FBX	22682	16-14	8	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-8FBK	01582	16-14	8	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-10FBX	22690	16-14	10	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-10FBK	01583	16-14	10	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000



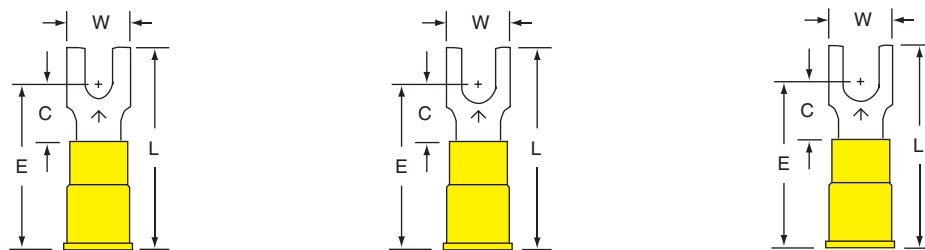
MNG14-4FB/S MNG14-6FB/S MNG14-6FB MNG14-8FB MNG14-10FB

Stud Size 4 6 6 8 10
 Wire Range 16-14 16-14 16-14 16-14 16-14

3M™ Block Forks — Nylon Insulated with Insulation Grip 12-10 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG10-6FBX	23722	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-6FBK	02017	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-8FBX	23730	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-8FBK	02018	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-10FBX	23748	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-10FBK	02019	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500



MNG10-6FB MNG10-8FB MNG10-10FB

Stud Size 6 8 10
 Wire Range 12-10 12-10 12-10

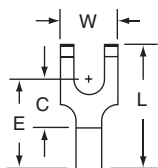
*Product number ending in X = box; product number ending with K = bulk.

Flanged Block Forks

3M™ Flanged Block Forks — Non-Insulated Brazed Seam



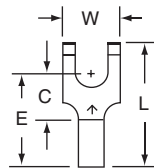
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
M14-6FFBK	01617	16-14	6	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
M14-8FFBK	01618	16-14	8	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
M14-10FFBK	01619	16-14	10	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
M10-8FFBK	02027	12-10	8	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500
M10-10FFBK	02028	12-10	10	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500



M18-6FFBK

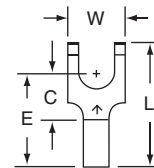
Stud Size
Wire Range

6
22-18



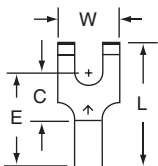
M18-8FFBK

8
22-18



M18-10FFBK

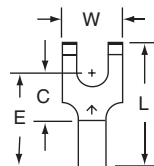
10
22-18



M14-6FFBK

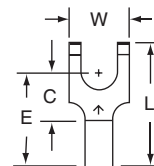
Stud Size
Wire Range

6
16-14



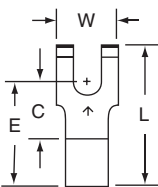
M14-8FFBK

8
16-14



M14-10FFBK

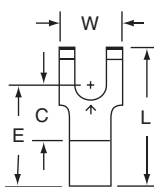
10
16-14



M10-6FFBK

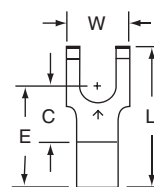
Stud Size
Wire Range

6
12-10



M10-8FFBK

8
12-10



M10-10FFBK

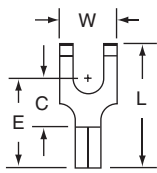
10
12-10

*Product number ending in X = box; product number ending with K = bulk.

3M™ Flanged Block Forks — Non-Insulated Butted Seam



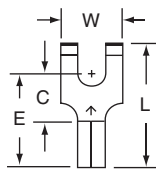
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU18-6FFBK	01247	22-18	6	0.30	0.25	0.65	0.50	0.030	0.25	0.070	1000
MU14-6FFBK	01613	16-14	6	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
MU14-8FFBK	01614	16-14	8	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
MU14-10FFBK	01615	16-14	10	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000
MU10-6FFBK	02023	12-10	6	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500
MU10-8FFBK	02024	12-10	8	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500
MU10-10FFBK	02025	12-10	10	0.32	0.29	0.73	0.54	0.040	0.25	0.135	500



MU18-6FFBK

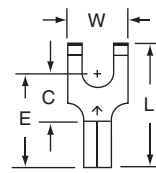
Stud Size
Wire Range

6
22-18



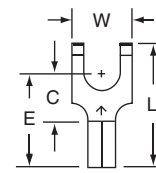
MU14-6FFBK

6
16-14



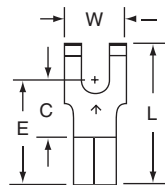
MU14-8FFBK

8
16-14



MU14-10FFBK

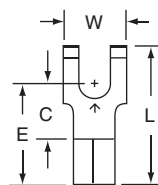
10
16-14



MU10-6FFBK

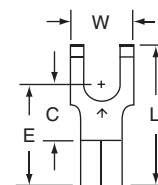
Stud Size
Wire Range

6
12-10



MU10-8FFBK

8
12-10



MU10-10FFBK

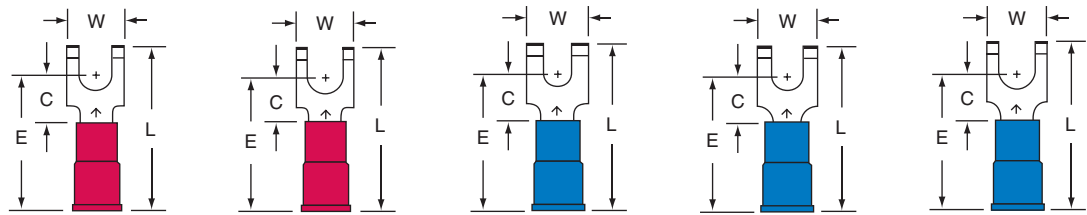
10
12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Flanged Block Forks — Vinyl Insulated Brazed Seam

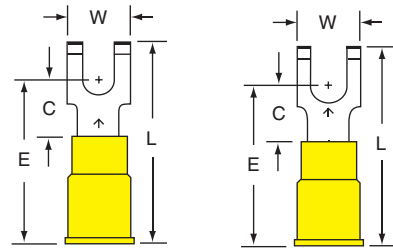


Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MV18-8FFBK	01260	22-18	8	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MV18-10FFBK	01261	22-18	10	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MV14-6FFBK	01625	16-14	6	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MV14-8FFBK	01626	16-14	8	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MV14-10FFBK	01627	16-14	10	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MV10-8FFBK	02033	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MV10-10FFBK	02034	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500



MV18-8FFB MV18-10FFB MV14-6FFB MV14-8FFB MV14-10FFB

Stud Size	8	10	6	8	10
Wire Range	22-18	22-18	16-14	16-14	16-14



MV10-8FFB MV10-10FFB

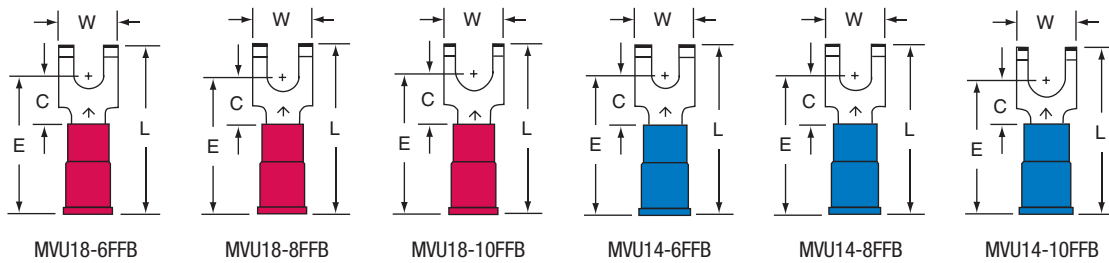
Stud Size	8	10
Wire Range	12-10	12-10

¹Product number ending in X = box; product number ending with K = bulk.

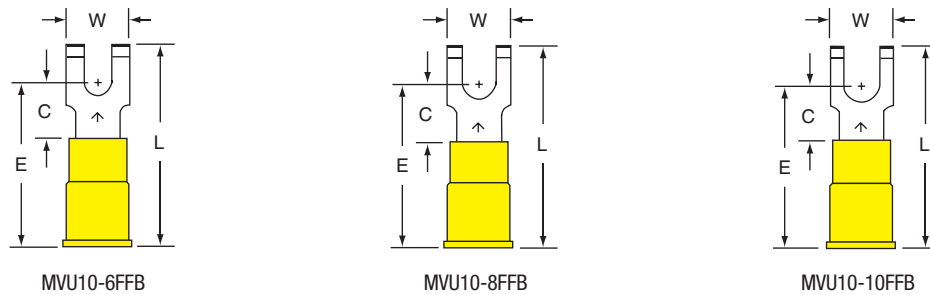
3M™ Flanged Block Forks — Vinyl Insulated Butted Seam



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU18-6FFBK	01267	22-18	6	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MVU18-8FFBK	01268	22-18	8	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MVU18-10FFBK	01269	22-18	10	0.30	0.25	0.85	0.70	0.030	0.25	0.070	0.145	1000
MVU14-6FFBK	01633	16-14	6	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MVU14-8FFBK	01634	16-14	8	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MVU14-10FFBK	01635	16-14	10	0.30	0.25	0.85	0.70	0.030	0.25	0.090	0.170	1000
MVU10-6FFBK	02038	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-8FFBK	02039	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500
MVU10-10FFBK	02040	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	500



Stud Size	6	8	10	6	8	10
Wire Range	22-18	22-18	22-18	16-14	16-14	16-14



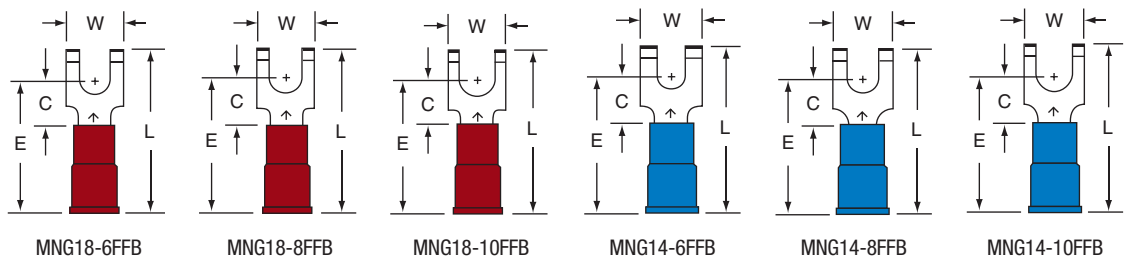
Stud Size	6	8	10
Wire Range	12-10	12-10	12-10

*Product number ending in X = box; product number ending with K = bulk.

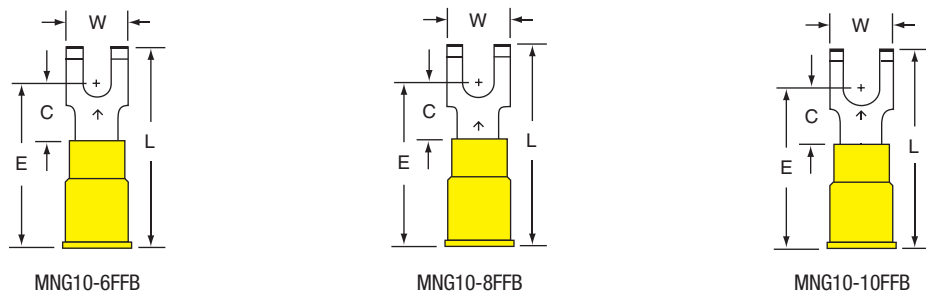
3M™ Flanged Block Forks — Nylon Insulated with Insulation Grip



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG18-6FFB/SX	49604	22-18	6	0.25	0.25	0.84	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-6FFBK	01263	22-18	6	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-8FFBX	49605	22-18	8	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-8FFBK	01264	22-18	8	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-10FFBX	49606	22-18	10	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-10FFBK	01265	22-18	10	0.30	0.25	0.84	0.69	0.030	0.25	0.070	0.145	—	1000
MNG14-6FFB/SX	49626	16-14	6	0.25	0.25	0.86	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-6FFBK	01629	16-14	6	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-8FFBX	49627	16-14	8	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-8FFBK	01630	16-14	8	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-10FFBX	49628	16-14	10	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-10FFBK	01631	16-14	10	0.30	0.25	0.86	0.71	0.030	0.25	0.090	0.170	—	1000
MNG10-6FFBX	49642	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-6FFBK	02035	12-10	6	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-8FFBX	49643	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-8FFBK	02036	12-10	8	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500
MNG10-10FFBX	49644	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	50	500
MNG10-10FFBK	02037	12-10	10	0.32	0.29	1.03	0.84	0.040	0.25	0.135	0.250	—	500



Stud Size	6	8	10	6	8	10
Wire Range	22-18	22-18	22-18	16-14	16-14	16-14



Stud Size	6	8	10
Wire Range	12-10	12-10	12-10

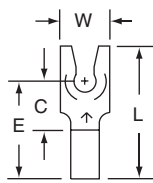
¹Product number ending in X = box; product number ending with K = bulk.

Locking Forks

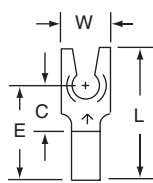
3M™ Locking Forks — Non-Insulated Brazed Seam 22-18 AWG



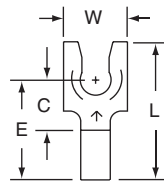
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
M18-4FLK	13725	22-18	4	0.27	0.25	0.25	0.68	0.50	0.030	0.25	0.070	—	1000
M18-6FLX	13732	22-18	6	0.27	0.25	0.25	0.68	0.50	0.030	0.25	0.070	100	500
M18-6FLK	13733	22-18	6	0.27	0.25	0.25	0.68	0.50	0.030	0.25	0.070	—	1000
M18-8FLX	13750	22-18	8	0.34	0.30	0.25	0.68	0.50	0.030	0.25	0.070	100	500
M18-10FLX	13757	22-18	10	0.35	0.32	0.25	0.68	0.50	0.030	0.25	0.070	100	500
M18-10FLK	13758	22-18	10	0.35	0.32	0.25	0.68	0.50	0.030	0.25	0.070	—	1000



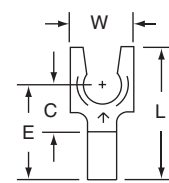
M18-4FL



M18-6FL



M18-8FL



M18-10FL

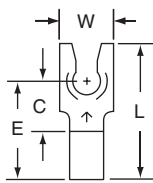
Stud Size
Wire Range

4	6	8	10
22-18	22-18	22-18	22-18

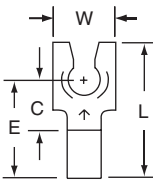
3M™ Locking Forks — Non-Insulated Brazed Seam 16-14 ATG



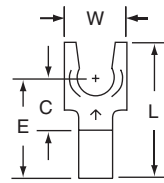
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Carton	Case
M14-6FLX	13773	16-14	6	0.27	0.25	0.68	0.50	0.030	0.25	0.090	100	500
M14-6FLK	13775	16-14	6	0.27	0.25	0.68	0.50	0.030	0.25	0.090	—	1000
M14-8FLX	13781	16-14	8	0.34	0.30	0.68	0.50	0.030	0.25	0.090	100	500
M14-8FLK	13782	16-14	8	0.34	0.30	0.68	0.50	0.030	0.25	0.090	—	1000
M14-10FLX	13799	16-14	10	0.35	0.32	0.68	0.50	0.030	0.25	0.090	100	500
M14-10FLK	13800	16-14	10	0.35	0.32	0.68	0.50	0.030	0.25	0.090	—	1000
M14-14FLX	13807	16-14	1/4	0.48	0.43	0.90	0.65	0.030	0.25	0.090	100	500



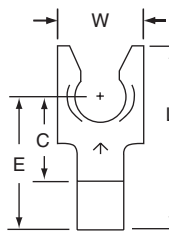
M14-6FL



M14-8FL



M14-10FL



M14-14FL

Stud Size
Wire Range

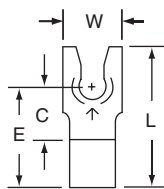
6	8	10	1/4
16-14	16-14	16-14	16-14

¹Product number ending in X = box; product number ending with K = bulk.

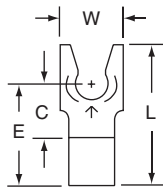
3M™ Locking Forks — Non-Insulated Brazed Seam 12-10 AWG



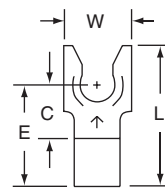
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max. Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Carton	Terminals per Case
M10-6FLX	13815	12-10	6	0.30	0.28	0.28	0.73	0.53	0.040	0.25	0.135	50	500
M10-6FLK	13817	12-10	6	0.30	0.28	0.28	0.73	0.53	0.040	0.25	0.135	—	500
M10-8FLX	13823	12-10	8	0.35	0.32	0.28	0.73	0.53	0.040	0.25	0.135	50	500
M10-8FLK	13824	12-10	8	0.35	0.32	0.28	0.73	0.53	0.040	0.25	0.135	—	500
M10-10FLX	13831	12-10	10	0.36	0.32	0.28	0.73	0.53	0.040	0.25	0.135	50	500
M10-10FLK	13832	12-10	10	0.36	0.32	0.28	0.73	0.53	0.040	0.25	0.135	—	500
M10-14FLX	13849	12-10	1/4	0.48	0.43	0.44	0.94	0.69	0.040	0.25	0.135	50	500
M10-14FLK	13850	12-10	1/4	0.48	0.43	0.44	0.94	0.69	0.040	0.25	0.135	—	500



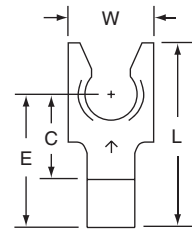
M10-6FL



M10-8FL



M10-10FL



M10-14FL

Stud Size

6

8

10

1/4

Wire Range

12-10

12-10

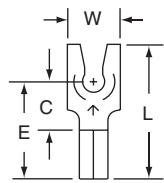
12-10

12-10

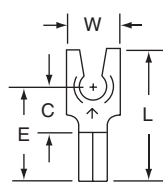
3M™ Locking Forks — Non-Insulated Butted Seam 22-18 AWG



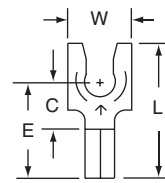
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max. Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU18-4FLK	01347	22-18	4	0.27	0.25	0.25	0.68	0.50	0.030	0.25	0.070	1000
MU18-6FLK	01348	22-18	6	0.27	0.25	0.25	0.68	0.50	0.030	0.25	0.070	1000
MU18-8FLK	01349	22-18	8	0.34	0.30	0.25	0.68	0.50	0.030	0.25	0.070	1000
MU18-10FLK	01350	22-18	10	0.35	0.32	0.25	0.68	0.50	0.030	0.25	0.070	1000



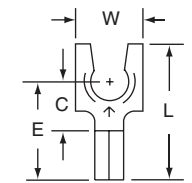
MU18-4FL



MU18-6FL



MU18-8FL



MU18-10FL

Stud Size

4

6

8

10

Wire Range

22-18

22-18

22-18

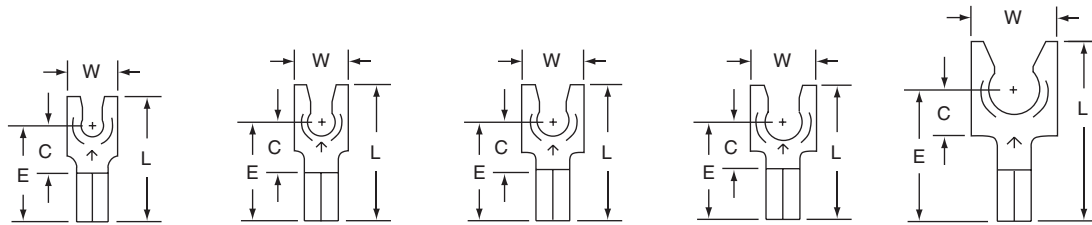
22-18

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Locking Forks — Non-Insulated Butted Seam 16-14 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	Max. Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU14-4FLK	01856	16-14	4	0.27	0.25	0.25	0.68	0.50	0.030	0.25	0.090	1000
MU14-6FLK	01857	16-14	6	0.27	0.25	0.25	0.68	0.50	0.030	0.25	0.090	1000
MU14-8FLK	01858	16-14	8	0.34	0.30	0.25	0.68	0.50	0.030	0.25	0.090	1000
MU14-10FLK	01859	16-14	10	0.35	0.32	0.25	0.68	0.50	0.030	0.25	0.090	1000
MU14-14FLK	01860	16-14	1/4	0.48	0.43	0.40	0.90	0.65	0.030	0.25	0.090	1000



MU14-4FL

MU14-6FL

MU14-8FL

MU14-10FL

MU14-14FL

Stud Size

4

6

8

10

1/4

Wire Range

16-14

16-14

16-14

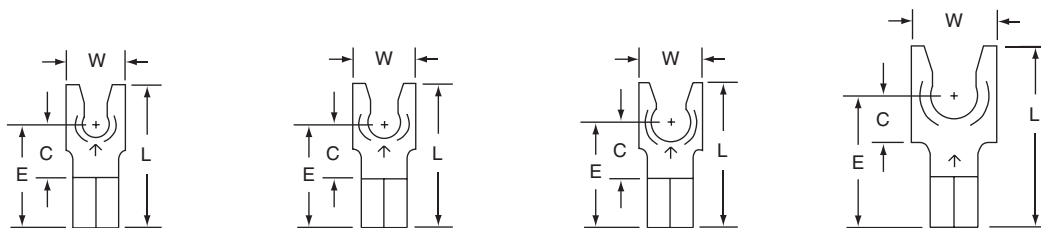
16-14

16-14

3M™ Locking Forks — Non-Insulated Butted Seam 12-10 AWG



Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	Max. Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU10-6FLK	02102	12-10	6	0.30	0.28	0.28	0.73	0.53	0.040	0.25	0.135	500
MU10-8FLK	02103	12-10	8	0.35	0.32	0.28	0.73	0.53	0.040	0.25	0.135	500
MU10-10FLK	02104	12-10	10	0.36	0.32	0.28	0.73	0.53	0.040	0.25	0.135	500
MU10-14FLK	02105	12-10	1/4	0.48	0.43	0.44	0.94	0.69	0.040	0.25	0.135	500



MU10-6FL

MU10-8FL

MU10-10FL

MU10-14FL

Stud Size

6

8

10

1/4

Wire Range

12-10

12-10

12-10

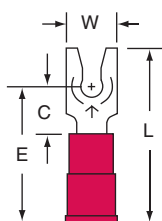
12-10

*Product number ending in X = box; product number ending with K = bulk.

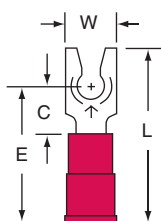
3M™ Locking Forks — Non-Insulated Brazed Seam 22-18 AWG



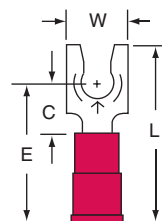
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	per Case
MV18-4FLX	13856	22-18	4	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.070	0.145	100	500
MV18-4FLK	13857	22-18	4	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.070	0.145	—	1000
MV18-6FLX	13864	22-18	6	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.070	0.145	100	500
MV18-6FLK	13865	22-18	6	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.070	0.145	—	1000
MV18-8FLX	13872	22-18	8	0.34	0.30	0.25	0.88	0.70	0.030	0.25	0.070	0.145	100	500
MV18-8FLK	13873	22-18	8	0.34	0.30	0.25	0.88	0.70	0.030	0.25	0.070	0.145	—	1000
MV18-10FLX	13890	22-18	10	0.35	0.32	0.25	0.88	0.70	0.030	0.25	0.070	0.145	100	500
MV18-10FLK	13891	22-18	10	0.35	0.32	0.25	0.88	0.70	0.030	0.25	0.070	0.145	—	1000



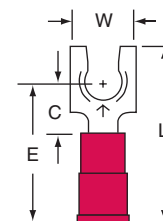
MV18-4FL



MV18-6FL



MV18-8FL



MV18-10FL

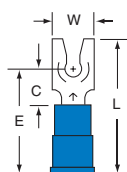
Stud Size
Wire Range

4	6	8	10
22-18	22-18	22-18	22-18

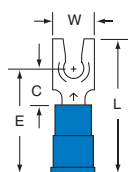
3M™ Locking Forks — Non-Insulated Brazed Seam 16-14 AWG



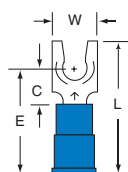
Product Number*	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	per Case
MV14-4FLX	13898	16-14	4	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.090	0.170	100	500
MV14-6FLX	13906	16-14	6	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.090	0.170	100	500
MV14-6FLK	13907	16-14	6	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.090	0.170	—	1000
MV14-8FLX	13914	16-14	8	0.34	0.30	0.25	0.88	0.70	0.030	0.25	0.090	0.170	100	500
MV14-8FLK	13915	16-14	8	0.34	0.30	0.25	0.88	0.70	0.030	0.25	0.090	0.170	—	1000
MV14-10FLX	13922	16-14	10	0.35	0.32	0.25	0.88	0.70	0.030	0.25	0.090	0.170	100	500
MV14-10FLK	13923	16-14	10	0.35	0.32	0.25	0.88	0.70	0.030	0.25	0.090	0.170	—	1000
MV14-14FLX	13940	16-14	1/4	0.48	0.43	0.40	1.10	0.85	0.030	0.25	0.090	0.170	100	500
MV14-14FLK	13941	16-14	1/4	0.48	0.43	0.40	1.10	0.85	0.030	0.25	0.090	0.170	—	1000



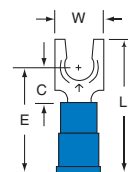
MV14-4FL



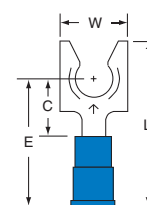
MV14-6FL



MV14-8FL



MV14-10FL



MV14-14FL

Stud Size
Wire Range

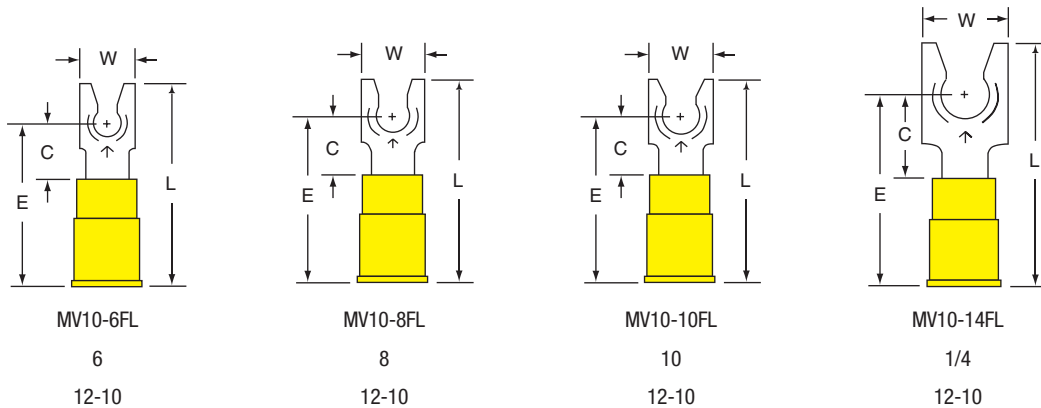
4	6	8	10	1/4
16-14	16-14	16-14	16-14	16-14

*Product number ending in X = box; product number ending with K = bulk.

3M™ Locking Forks — Vinyl Insulated Brazed Seam 12-10 AWG



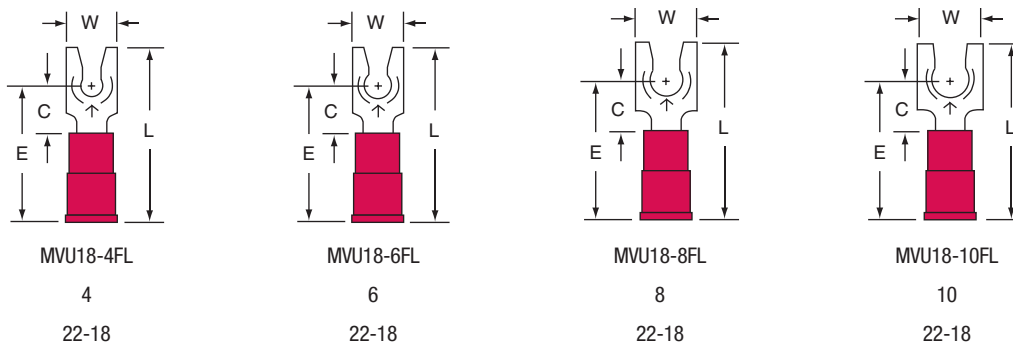
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Terminals per Case
MV10-6FLX	13948	12-10	6	0.30	0.28	0.28	1.03	0.83	0.040	0.25	0.135	0.250	50	500
MV10-6FLK	13949	12-10	6	0.30	0.28	0.28	1.03	0.83	0.040	0.25	0.135	0.250	—	500
MV10-8FLX	13955	12-10	8	0.35	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	50	500
MV10-8FLK	13956	12-10	8	0.35	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	—	500
MV10-10FLX	13963	12-10	10	0.36	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	50	500
MV10-10FLK	13964	12-10	10	0.36	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	—	500
MV10-14FLX	13971	12-10	1/4	0.48	0.43	0.44	1.24	0.99	0.040	0.25	0.135	0.250	50	500
MV10-14FLK	13972	12-10	1/4	0.48	0.43	0.44	1.24	0.99	0.040	0.25	0.135	0.250	—	500



3M™ Locking Forks — Vinyl Insulated Butted Seam 22-18 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU18-4FLK	01359	22-18	4	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.070	0.145	1000
MVU18-6FLK	01360	22-18	6	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.070	0.145	1000
MVU18-8FLK	01361	22-18	8	0.34	0.30	0.25	0.88	0.70	0.030	0.25	0.070	0.145	1000
MVU18-10FLK	01362	22-18	10	0.35	0.32	0.25	0.88	0.70	0.030	0.25	0.070	0.145	1000

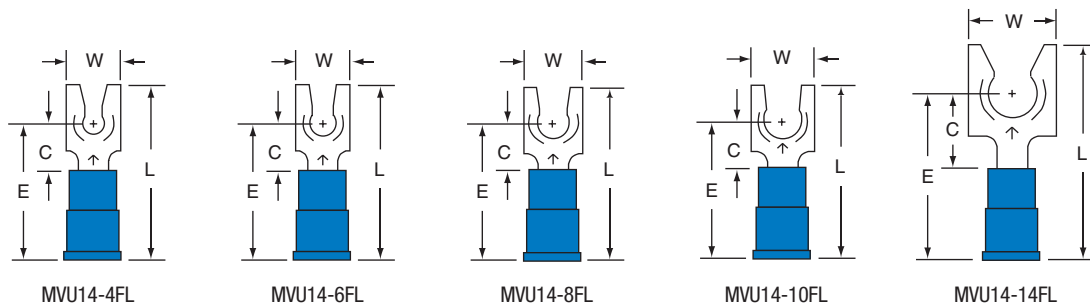


¹Product number ending in X = box; product number ending with K = bulk.

3M™ Locking Forks — Vinyl Insulated Butted Seam 16-14 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU14-4FLK	01871	16-14	4	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.090	0.170	1000
MVU14-6FLK	01872	16-14	6	0.27	0.25	0.25	0.88	0.70	0.030	0.25	0.090	0.170	1000
MVU14-8FLK	01873	16-14	8	0.34	0.30	0.25	0.88	0.70	0.030	0.25	0.090	0.170	1000
MVU14-10FLK	01874	16-14	10	0.35	0.32	0.25	0.88	0.70	0.030	0.25	0.090	0.170	1000
MVU14-14FLK	01875	16-14	1/4	0.48	0.43	0.40	1.10	0.85	0.030	0.25	0.090	0.170	1000

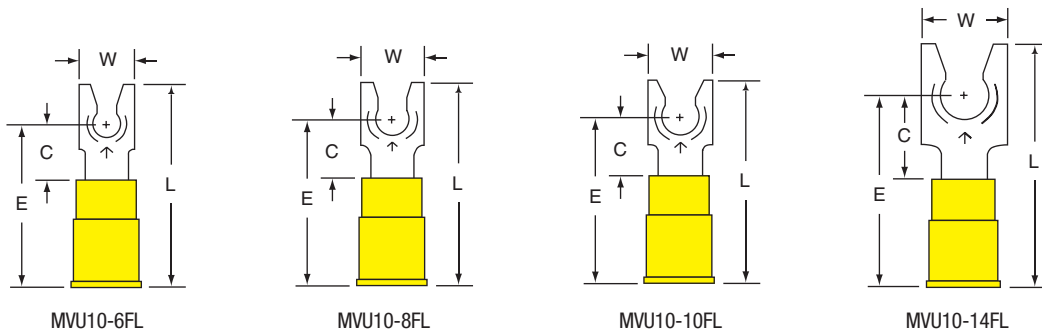


Stud Size	4	6	8	10	1/4
Wire Range	16-14	16-14	16-14	16-14	16-14

3M™ Locking Forks — Vinyl Insulated Butted Seam 12-10 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Case
MVU10-6FLK	02114	12-10	6	0.30	0.28	0.28	1.03	0.83	0.040	0.25	0.135	0.250	500
MVU10-8FLK	02115	12-10	8	0.35	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	500
MVU10-10FLK	02116	12-10	10	0.36	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	500
MVU10-14FLK	02117	12-10	1/4	0.48	0.43	0.44	1.24	0.99	0.040	0.25	0.135	0.250	500



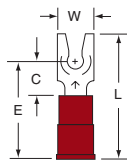
Stud Size	6	8	10	1/4
Wire Range	12-10	12-10	12-10	12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Locking Forks — Nylon Insulated with Insulation Grip 22-18 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	per Case
MNG18-4FLX	11706	22-18	4	0.27	0.25	0.25	0.87	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-4FLK	01355	22-18	4	0.27	0.25	0.25	0.87	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-6FLX	11707	22-18	6	0.27	0.25	0.25	0.87	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-6FLK	01356	22-18	6	0.27	0.25	0.25	0.87	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-8FLX	11708	22-18	8	0.34	0.30	0.25	0.87	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-8FLK	01357	22-18	8	0.34	0.30	0.25	0.87	0.69	0.030	0.25	0.070	0.145	—	1000
MNG18-10FLX	11709	22-18	10	0.35	0.32	0.25	0.87	0.69	0.030	0.25	0.070	0.145	100	500
MNG18-10FLK	01358	22-18	10	0.35	0.32	0.25	0.87	0.69	0.030	0.25	0.070	0.145	—	1000



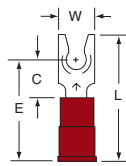
MNG18-4FL

Stud Size

4

Wire Range

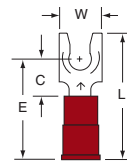
22-18



MNG18-6FL

6

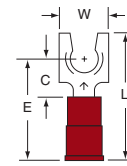
22-18



MNG18-8FL

8

22-18



MNG18-10FL

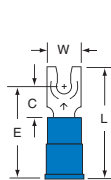
10

22-18

3M™ Locking Forks — Nylon Insulated with Insulation Grip 16-14 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	per Case
MNG14-4FLX	11717	16-14	4	0.27	0.25	0.25	0.89	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-4FLK	01866	16-14	4	0.27	0.25	0.25	0.89	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-6FLX	11718	16-14	6	0.27	0.24	0.25	0.89	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-6FLK	01867	16-14	6	0.27	0.24	0.25	0.89	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-8FLX	11719	16-14	8	0.34	0.30	0.25	0.89	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-8FLK	01868	16-14	8	0.34	0.30	0.25	0.89	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-10FLX	11720	16-14	10	0.35	0.32	0.25	0.89	0.71	0.030	0.25	0.090	0.170	100	500
MNG14-10FLK	01869	16-14	10	0.35	0.32	0.25	0.89	0.71	0.030	0.25	0.090	0.170	—	1000
MNG14-14FLX	11721	16-14	1/4	0.48	0.43	0.40	1.11	0.86	0.030	0.25	0.090	0.170	100	500
MNG14-14FLK	01870	16-14	1/4	0.48	0.43	0.40	1.11	0.86	0.030	0.25	0.090	0.170	—	1000



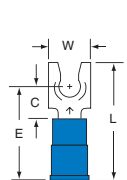
MNG14-4FL

Stud Size

4

Wire Range

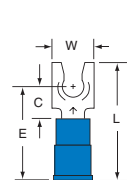
16-14



MNG14-6FL

6

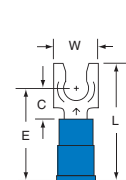
16-14



MNG14-8FL

8

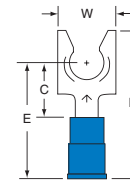
16-14



MNG14-10FL

10

16-14



MNG14-14FL

1/4

16-14

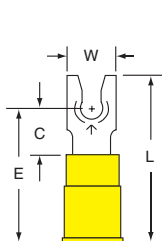
¹Product number ending in X = box; product number ending with K = bulk.



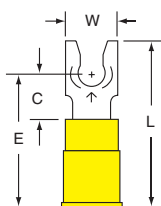
3M™ Locking Forks — Nylon Insulated with Insulation Grip 12-10 AWG



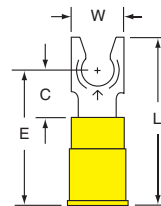
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	Max Lock Width	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per Carton	Case
MNG10-6FLX	11725	12-10	6	0.30	0.28	0.28	1.03	0.83	0.040	0.25	0.135	0.250	50	500
MNG10-6FLK	02106	12-10	6	0.30	0.28	0.28	1.03	0.83	0.040	0.25	0.135	0.250	—	500
MNG10-8FLX	11726	12-10	8	0.35	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	50	500
MNG10-8FLK	02107	12-10	8	0.35	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	—	500
MNG10-10FLX	11727	12-10	10	0.36	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	50	500
MNG10-10FLK	02108	12-10	10	0.36	0.32	0.28	1.03	0.83	0.040	0.25	0.135	0.250	—	500
MNG10-14FLX	11728	12-10	1/4	0.48	0.43	0.44	1.24	0.99	0.040	0.25	0.135	0.250	50	500
MNG10-14FLK	02109	12-10	1/4	0.48	0.43	0.44	1.24	0.99	0.040	0.25	0.135	0.250	—	500



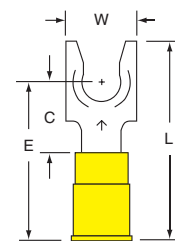
MNG10-6FL



MNG10-8FL



MNG10-10FL



MNG10-14FL

Stud Size

6

8

10

1/4

Wire Range

12-10

12-10

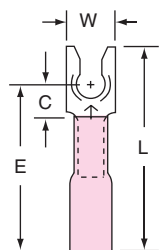
12-10

12-10

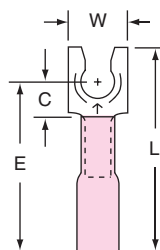
3M™ Locking Forks — Heat Shrink Brazed Seam 22-18 AWG



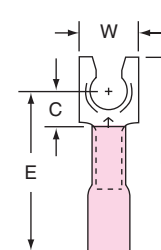
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Carton	Case
MH18-6FLX	06346	22-18	6	0.25	0.15	1.00	0.76	0.030	0.25	0.070	25	100
MH18-6FLK	06347	22-18	6	0.25	0.15	1.00	0.76	0.030	0.25	0.070	—	250
MH18-8FLX	06363	22-18	8	0.30	0.15	1.00	0.70	0.030	0.25	0.090	25	100
MH18-8FLK	06362	22-18	8	0.30	0.15	1.00	0.70	0.030	0.25	0.090	—	250
MH18-10FLX	06352	22-18	10	0.32	0.15	1.00	0.76	0.030	0.25	0.070	25	100
MH18-10FLK	06353	22-18	10	0.32	0.15	1.00	0.76	0.030	0.25	0.070	—	250



MH18-6FL



MH18-8FL



MH18-10FL

Stud Size

6

8

10

Wire Range

22-18

22-18

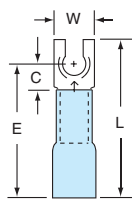
22-18

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Locking Forks — Heat Shrink Brazed Seam 16-14 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Bag	Case
MH14-6FLX	06322	16-14	6	0.25	0.12	1.00	0.76	0.030	0.25	0.090	25	100
MH14-6FLK	06323	16-14	6	0.25	0.12	1.00	0.76	0.030	0.25	0.090	—	250
MH14-8FLX	06361	16-14	8	0.30	0.12	1.00	0.70	0.030	0.25	0.090	25	100
MH14-8FLK	06360	16-14	8	0.30	0.12	1.00	0.70	0.030	0.25	0.090	—	250
MH14-10FLX	06328	16-14	10	0.32	0.12	1.00	0.76	0.030	0.25	0.090	25	100
MH14-10FLK	06329	16-14	10	0.32	0.12	1.00	0.76	0.030	0.25	0.090	—	250
MH14-14FLX	06332	16-14	1/4	0.43	0.27	1.1	0.85	0.030	0.25	0.090	25	100
MH14-14FLK	06333	16-14	1/4	0.43	0.27	1.1	0.85	0.030	0.25 </td <td>0.090</td> <td>—</td> <td>250</td>	0.090	—	250



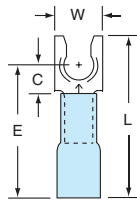
MH14-6FL

Stud Size

6

Wire Range

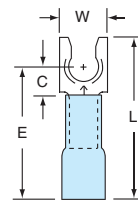
16-14



MH14-8FL

8

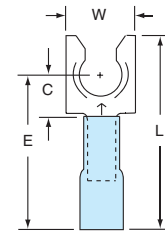
16-14



MH14-10FL

10

16-14



MH14-14FL

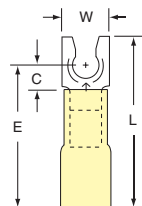
1/4

16-14

3M™ Locking Forks — Heat Shrink Brazed Seam 12-10 AWG



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Bag	Case
MH10-8FLX	06304	12-10	8	0.32	0.16	1.00	0.80	0.040	0.25	0.135	25	100
MH10-8FLK	06358	12-10	8	0.32	0.16	1.00	0.80	0.040	0.25	0.135	—	250
MH10-10FLX	06307	12-10	10	0.32	0.16	1.00	0.80	0.040	0.25	0.135	25	100
MH10-10FLK	06308	12-10	10	0.32	0.16	1.00	0.80	0.040	0.25	0.135	—	250
MH10-14FLX	06310	12-10	1/4	0.43	0.30	1.2	0.95	0.040	0.25	0.135	25	100
MH10-14FLK	06311	12-10	1/4	0.43	0.30	1.2	0.95	0.040	0.25	0.135	—	250



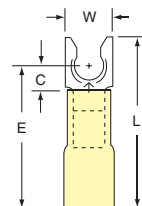
MH10-8FL

Stud Size

8

Wire Range

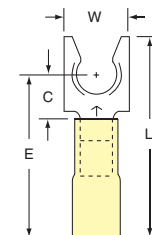
12-10



MH10-10FL

10

12-10



MH10-14FL

1/4

12-10

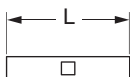
¹Product number ending in X = box; product number ending with K = bulk.

Butt Connectors

3M™ Butt Connectors — Non-Insulated Seamless

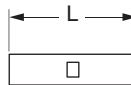


Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Terminals per Carton	Case
M18BCX	22187	22-18	0.63	0.031	0.28	0.062	100	500
M18BCK	01311	22-18	0.63	0.031	0.28	0.062	—	1000
M14BCX	23102	16-14	0.66	0.031	0.30	0.095	100	500
M14BCK	01816	16-14	0.66	0.031	0.30	0.095	—	1000
M10BCX	24019	12-10	0.81	0.038	0.38	0.142	50	500
M10BCK	02077	12-10	0.81	0.038	0.38	0.142	—	500



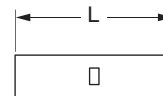
M18BC

Wire Range
22-18



M14BC

Wire Range
16-14



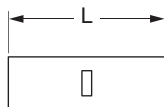
M10BC

Wire Range
12-10

3M™ Butt Connectors — Non-Insulated Brazed Seam



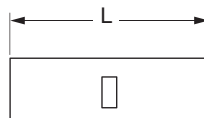
Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Terminals per Carton	Case
M8BCX	24167	8	0.81	0.050	0.38	0.175	25	250
M8BCK	02143	8	0.81	0.050	0.38	0.175	—	200
M6BCX	24225	6	1.02	0.050	0.47	0.250	20	200
M6BCK	02172	6	1.02	0.050	0.47	0.250	—	200
M4BCX	24282	4	1.13	0.075	0.53	0.280	15	150
M4BCK	02197	4	1.13	0.075	0.53	0.280	—	200



M8BC

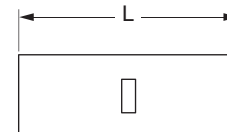
Wire Range

8



M6BC

6



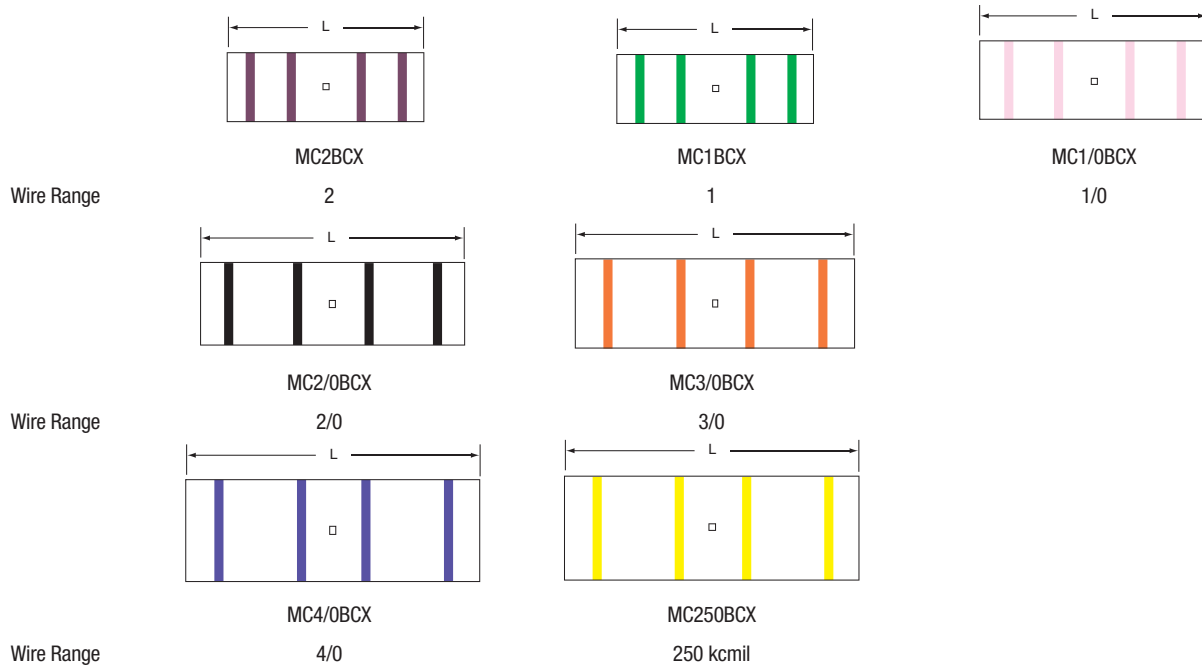
M4BC

4

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Large Gauge Butt Connectors — Non-Insulated Copper Seamless

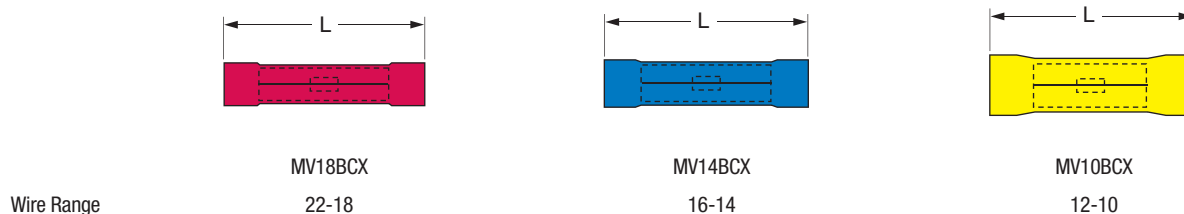
Product Number*	UPC (054007-)	Color Code	Wire Range	L	Barrel I.D.	Inner Unit Pack.	Case Qty.
MC2BCX	09205	Brown	2 AWG	1.38" (34,3 mm)	0.34" (8,6 mm)	10/box	100
MC1BCX	09206	Green	1 AWG	1.38" (34,3 mm)	0.36" (9,3 mm)	10/box	100
MC1/OBCX	09207	Pink	1/0 AWG	1.55" (39,4 mm)	0.41" (10,5 mm)	10/box	100
MC2/OBCX	09208	Black	2/0 AWG	1.80" (45,7 mm)	0.46" (11,8 mm)	10/box	100
MC3/OBCX	09209	Orange	3/0 AWG	1.90" (48,3 mm)	0.51" (13,1 mm)	3/box	30
MC4/OBCX	09210	Purple	4/0 AWG	2.00" (50,8 mm)	0.56" (14,3 mm)	3/box	30
MC250BCX	09211	Yellow	250 kcmil	2.25" (50,8 mm)	0.630" (15,1 mm)	3/box	30



3M™ Butt Connectors — Vinyl Insulated Seamless



Product Number*	UPC (054007-)	Wire Range	L	Thickness	Barrel Length	Barrel I.D.	Max Insulation Diameter	Inner Unit Pack.	Case Qty.
MV18BCX	22195	22-18 AWG	0.310" (7,874 mm)	0.030" (0,762 mm)	0.250" (6,35 mm)	0.070" (1,778 mm)	0.145" (3,683 mm)	100/ carton	500
MV18BCK	01312	22-18 AWG	0.310" (7,874 mm)	0.030" (0,762 mm)	0.250" (6,35 mm)	0.070" (1,778 mm)	0.145" (3,683 mm)		500
MV14BCX	23110	16-14 AWG	0.310" (7,874 mm)	0.030" (0,762 mm)	0.250" (6,35 mm)	0.090" (2,286 mm)	0.170" (4,138 mm)	100/ carton	500
MV14BCK	01817	16-14 AWG	0.310" (7,874 mm)	0.030" (0,762 mm)	0.250" (6,35 mm)	0.090" (2,286 mm)	0.170" (4,138 mm)		500
MV10BCX	24027	12-10 AWG	0.310" (7,874 mm)	0.040" (1,016 mm)	0.250" (6,35 mm)	0.135" (3,429 mm)	0.250" (6,35 mm)	50/ carton	500
MV10BCK	02078	12-10 AWG	0.310" (7,874 mm)	0.040" (1,016 mm)	0.250" (6,35 mm)	0.135" (3,429 mm)	0.250" (6,35 mm)		500

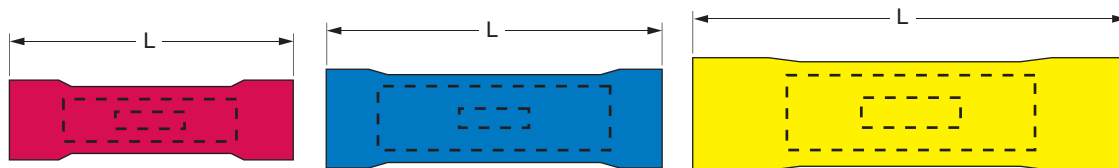


*Product number ending in X = box; product number ending with K = bulk.

3M™ Butt Connectors — Vinyl Insulated Brazed Seam



Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Max Insulation Diameter	Terminals per: Carton	Case
MV8BCX	15678	8	1.40	0.050	0.38	0.175	0.385	25	250
MV8BCK	02144	8	1.40	0.050	0.38	0.175	0.385	—	200
MV6BCX	49647	6	1.69	0.050	0.47	0.250	0.440	20	200
MV6BCK	02173	6	1.69	0.050	0.47	0.250	0.440	—	200
MV4BCK	02198	4	2.12	0.075	0.53	0.280	0.515	—	200

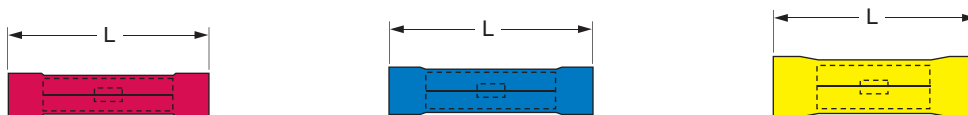


Wire Range 8 6 4

3M™ Butt Connectors — Vinyl Insulated Butted Seam



Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Max Insulation Diameter	Terminals per: Carton	Case
MVU18BCK	01315	22-18	1.00	0.030	0.25	0.070	0.145	—	1000
MVU14BCK	01820	16-14	1.00	0.030	0.25	0.090	0.170	—	1000
MVU10BCK	02081	12-10	1.02	0.040	0.25	0.135	0.250	—	500



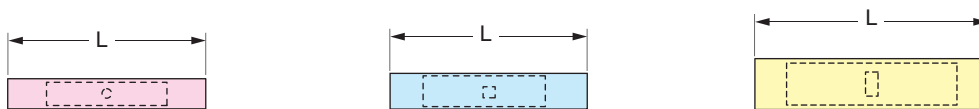
Wire Range 22-18 16-14 12-10

3M™ Butt Connectors — Nylon Insulated Seamless



Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Max Insulation Diameter	Terminals per: Carton	Case
MN24BCX-A	98202	26-24	0.79	0.025	0.20	0.050	0.080	100	500
MN24BCK-A	98203*	26-24	0.79	0.025	0.20	0.050	0.080	—	1000
MN18BCX-A	22211	22-18	1.02	0.031	0.28	0.062	0.125	100	500
MN14BCX-A	23136	16-14	1.02	0.031	0.30	0.095	0.155	100	500
MN14BCK-A	01819	16-14	1.02	0.031	0.30	0.095	0.155	—	1000
MN10BCX-A	24043	12-10	1.20	0.038	0.38	0.142	0.218	50	500

* UPC prefix 051138



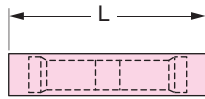
Wire Range 22-18 16-14 12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Butt Connectors — Nylon Insulated with Insulation Grip



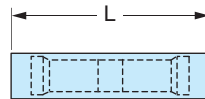
Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Max Insulation Diameter	Terminals per: Carton	Case
MNG18BCX	22203	22-18	1.00	0.030	0.25	0.070	0.145	100	500
MNG18BCK	01313	22-18	1.00	0.030	0.25	0.070	0.145	—	1000
MNG14BCX	23128	16-14	1.00	0.030	0.25	0.090	0.170	100	500
MNG14BCK	01818	16-14	1.00	0.030	0.25	0.090	0.170	—	1000
MNG10BCX	24035	12-10	1.15	0.040	0.25	0.135	0.250	50	500
MNG10BCK	15967	12-10	1.15	0.040	0.25	0.135	0.250	—	500



MNG18BC

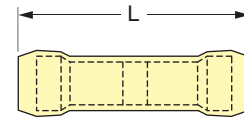
Wire Range

22-18



MNG14BC

16-14



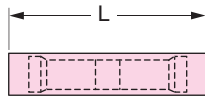
MNG10BC

12-10

3M™ Butt Connectors — Nylon Insulated with Insulation Grip Moisture Resistant[®]



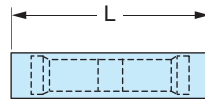
Product Number ¹	UPC (051138-)	Wire Range (AWG)	L	Terminals per: Carton	Case
MNG18BCM-A	98027	22-18	1.02	25	250
MNG18BCM-K-A	98029	22-18	1.02	—	1000
MNG14BCM-A	98032	16-14	1.02	25	250
MNG14BCM-K-A	98035	16-14	1.06	—	1000
MNG10BCM-A	98037	12-10	1.23	25	250
MNG10BCM-K-A	98039	12-10	1.23	—	500



MNG18BCM-A

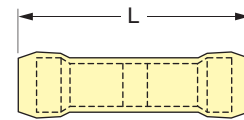
Wire Range

22-18



MNG14BCM-A

16-14



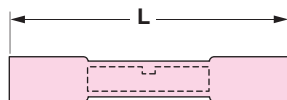
MNG10BCM-A

12-10

3M™ Butt Connectors — Heat Shrink Seamless



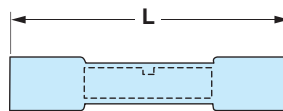
Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Terminals per: Bag	Case
MH18BCX	06342	22-18	1.2	0.031	0.28	0.062	25	100
MH18BCK	06343	22-18	1.2	0.031	0.28	0.062	—	250
MH14BCX	06318	16-14	1.3	0.031	0.30	0.095	25	100
MH14BCK	06319	16-14	1.3	0.031	0.30	0.095	—	250
MH10BCX	06300	12-10	1.5	0.031	0.38	0.142	25	100
MH10BCK	06301	12-10	1.5	0.031	0.38	0.142	—	250



MH18BC

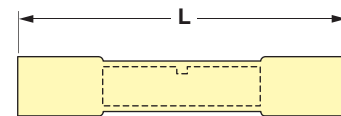
Wire Range

22-18



MH14BC

16-14



MH10BC

12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Step-Down Butt Connectors — Non-Insulated

Part Number	Min. Order Qty.	UPC 051128-	Side #1		Side #2	
			Color Stripe	Wire Gauge	Color Stripe	Wire Gauge
SD-610-S	1000	57020	White	22-24 AWG	Red	18-20 AWG
SD-621-S	1000	57021	Red	18-20 AWG	Blue	14-16 AWG
SD-632-S	1000	57022	Blue	14-16 AWG	Yellow	10-12 AWG
SD-643-S	1000	57023	Yellow	10-12 AWG	Red	8 AWG

3M™ Step-Down Butt Connectors — Vinyl

Part Number	Min. Order Qty.	UPC 051128-	Side #1		Side #2	
			Color Stripe	Wire Gauge	Color Stripe	Wire Gauge
SD-610-SP	1000	57024	White	22-24 AWG	Red	18-20 AWG
SD-621-SP	1000	57025	Red	18-20 AWG	Blue	14-16 AWG
SD-632-SP	1000	57026	Blue	14-16 AWG	Yellow	10-12 AWG
SD-643-SP	1000	57027	Yellow	10-12 AWG	Red	8 AWG

3M™ Step-Down Butt Connectors — Heat Shrink

Part Number	Min. Order Qty.	UPC 051128-	Heat Shrink Tubing Color	Side #1		Side #2	
				Color Stripe	Wire Gauge	Color Stripe	Wire Gauge
SD-610-SHS	1000	57028	Red	White	22-24 AWG	Red	18-20 AWG
SD-621-SHS	1000	57029	Blue	Red	18-20 AWG	Blue	14-16 AWG
SD-632-SHS	1000	57030	Yellow	Blue	14-16 AWG	Yellow	10-12 AWG
SD-643-SHS	1000	57031	Pink	Yellow	10-12 AWG	Red	8 AWG

*Product number ending in X = box; product number ending with K = bulk.

3M™ Multiple Wire Heat Shrink Butt Connectors

Part Number	Min. Order Qty.	UPC 051128-	Wire Gauge	Tubing Color	Color Stripe on Connector	Wire
MW-60-SHS	250	57032	24-22 AWG	Clear/White Dashes	Side 1: White / Side 2: Red	One 22-24 AWG / Two 22-24 AWG
MW-61-SHS	250	57033	20-18 AWG	Clear/Red Dashes	Side 1: Red / Side 2: Blue	One 18-20 AWG / Two 18-20 AWG
MW-62-SHS	250	57034	16-14 AWG	Clear/Blue Dashes	Side 1: Blue / Side 2: Yellow	One 14-16 AWG / Two 14-16 AWG
MW-63-SHS	250	57035	12-10 AWG	Clear/Yellow Dashes	Side 1: Yellow / Side 2: Red	One 10-12 AWG / Two 10-12 AWG

3M™ Step-Down Butt Connectors — Non-Insulated

Part Number	Min. Order Qty.	UPC 051128-	Connector Wire Gauge	Tubing Color
722-NHS	250	57208	22-14 AWG	Clear/Blue Dashes
718-NHS	250	57207	18-10 AWG	Clear/Yellow Dashes

*Product number ending in X = box; product number ending with K = bulk.

Female Disconnects

3M™ Female Disconnects — Non-Insulated Butted Seam

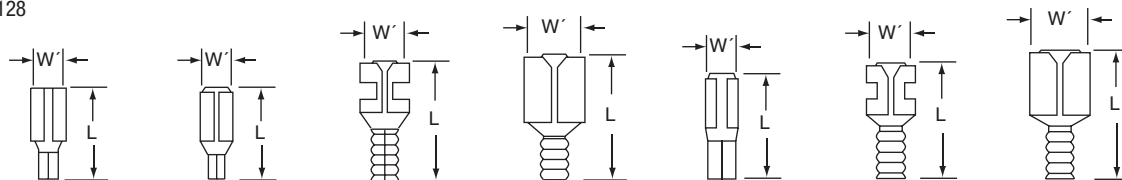


Product Number [†]	UPC (054007-)	Wire Range (AWG)**	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MU20-110DFK-A*	00984	26-20	0.110 x 0.020	0.48	—	—	—	1000
MU20-110/32DFK-A*	00985	26-20	0.110 x 0.032	0.48	—	—	—	1000
MU18-187DFK	02366	22-18	0.187 x 0.020	0.58	0.25	0.085	—	1000
MU18-250DFX	16725	22-18	0.250 x 0.032	0.66	0.25	0.080	100	500
MU18-250DFK	01300	22-18	0.250 x 0.032	0.66	0.25	0.080	—	1000
MU14-110DFX-A*	57448***	16-14	0.110 x 0.020	0.54	0.19	0.115	100	500
MU14-110DFK*	13995	16-14	0.110 x 0.020	0.54	0.19	0.115	—	1000
MU14-187DFX	22831	16-14	0.187 x 0.020	0.58	0.25	0.085	100	500
MU14-187DFK	01767	16-14	0.187 x 0.020	0.58	0.25	0.085	—	1000
MU14-250DFX	22849	16-14	0.250 x 0.032	0.66	0.25	0.080	100	500
MU14-250DFK	01768	16-14	0.250 x 0.032	0.66	0.25	0.080	—	1000

* Not UL Listed or CSA Certified

** For #10-12 AWG, see MI10-250DF

*** UPC prefix 051128



MU20-110DF

MU20-110/32DF

MU18-187DF

MU18-250DF

MU14-110DF

MU14-187DF

MU14-250DF

Wire Range

26-20

26-20

22-18

22-18

16-14

16-14

16-14

Suggested Mate

0.110 Male Tab

0.110 Male Tab

MU18-187DM

MU18-250DM

0.110 Male Tab

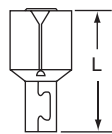
MU14-187DM

MU14-250DM

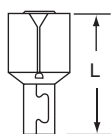
3M™ Female Disconnects — Non-Insulated Interlock Barrel



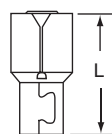
Product Number [†]	UPC (054007-)	Wire Range (AWG)**	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MI18-250DFX	09979	22-18	0.250 x 0.032	0.63	0.25	0.076	100	500
MI18-250DFK	69561	22-18	0.250 x 0.032	0.63	0.25	0.076	—	1000
MI14-250DFX	09977	16-14	0.250 x 0.032	0.63	0.25	0.076	100	500
MI14-250DFK	69559	16-14	0.250 x 0.032	0.63	0.25	0.076	—	1000
MI10-250DFX	09975	12-10	0.250 x 0.032	0.64	0.25	0.128	50	500
MI10-250DFK	69557	12-10	0.250 x 0.032	0.64	0.25	0.128	—	500



MI18-250DF



MI14-250DF



MI10-250DF

Wire Range

22-18

16-14

12-10

Suggested Mate

MU18-250DF

MU14-250DM

MU10-250DM

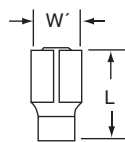
[†]Product number ending in X = box; product number ending with K = bulk.

3M™ Female Disconnects — Non-Insulated Butted Seam Flag



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MU18-187DF/FLAGX*	22138	22-18	0.187 x 0.020	0.46	0.20	0.075	100	500
MU18-187DF/FLAGK*	01302	22-18	0.187 x 0.020	0.46	0.20	0.075	—	1000
MU18-250DF/FLAGX	22146	22-18	0.250 x 0.032	0.50	0.25	0.075	100	500
MU18-250DF/FLAGK	01303	22-18	0.250 x 0.032	0.50	0.25	0.075	—	1000
MU14-187DF/FLAGX*	22948	16-14	0.187 x 0.020	0.47	0.20	0.095	100	500
MU14-187DF/FLAGK*	01778	16-14	0.187 x 0.020	0.47	0.20	0.095	—	1000
MU14-250DF/FLAGX	22955	16-14	0.250 x 0.032	0.51	0.26	0.095	100	500
MU14-250DF/FLAGK	01779	16-14	0.250 x 0.032	0.51	0.26	0.095	—	1000

* Not UL Listed or CSA Certified



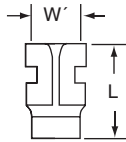
MU18-187DF/FLAG

Wire Range

22-18

Suggested Mate

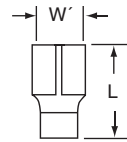
0.187 Male Tab



MU18-250DF/FLAG

22-18

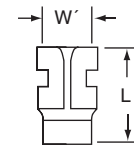
0.250 Male Tab



MU14-187DF/FLAG

16-14

0.187 Male Tab



MU14-250DF/FLAG

16-14

0.250 Male Tab

3M™ Female Disconnects — Vinyl Insulated Butted Seam

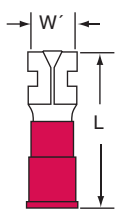


Product Number ¹	UPC (054007-)	Wire Range (AWG)**	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MVU18-187DFK	02368	22-18	0.187 x 0.020	0.78	0.25	0.085	0.145	—	1000
MVU18-250DFX	11820	22-18	0.250 x 0.032	0.87	0.25	0.080	0.145	100	500
MVU18-250DFK	01301	22-18	0.250 x 0.032	0.87	0.25	0.080	0.145	—	1000
MVU14-110DFK-A*	57438***	16-14	0.110 x 0.020	0.73	—	—	0.18	—	1000
MVU14-187DFX	22872	16-14	0.187 x 0.020	0.78	0.25	0.085	0.145	100	500
MVU14-187DFK	01776	16-14	0.187 x 0.020	0.78	0.25	0.085	0.145	—	1000
MVU14-250DFX	22880	16-14	0.250 x 0.032	0.87	0.25	0.080	0.145	100	500
MVU14-250DFK	01777	16-14	0.250 x 0.032	0.87	0.25	0.080	0.145	—	1000

* Not UL Listed or CSA Certified

** For #10-12 AWG, MVU10-250DF has been substituted with MV10-250DF.

*** UPC prefix 051128



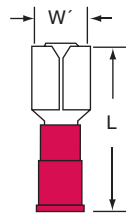
MVU18-187DF

Wire Range

22-18

Suggested Mate

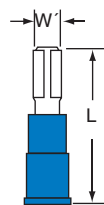
MVU18-187DM



MVU18-250DF

22-18

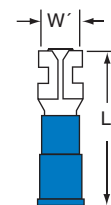
MVU18-250DM



MVU14-110DF-A

16-14

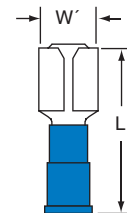
0.110 Male Tab



MVU14-187DF

16-14

MVU14-187DM



MVU14-250DF

16-14

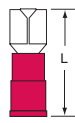
MVU14-250DM

¹Product number ending in X = box; product number ending with K = bulk.

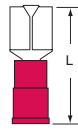
3M™ Female Disconnects — Vinyl Insulated Interlock Barrel



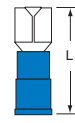
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MVI18-187DFX	09996	22-18	0.187 x 0.020	0.77	0.25	0.080	0.145	100	500
MVI18-187DFK	69581	22-18	0.187 x 0.020	0.77	0.25	0.080	0.145	—	1000
MVI18-250DFX	09997	22-18	0.250 x 0.032	0.83	0.25	0.076	0.145	100	500
MVI18-250DFK	69582	22-18	0.250 x 0.032	0.83	0.25	0.076	0.145	—	1000
MVI14-187DFX	09999	16-14	0.187 x 0.020	0.77	0.25	0.080	0.145	100	500
MVI14-187DFK	69579	16-14	0.187 x 0.020	0.77	0.25	0.080	0.145	—	1000
MVI14-250DFX	69556	16-14	0.250 x 0.032	0.83	0.25	0.076	0.145	100	500
MVI14-250DFK	69580	16-14	0.250 x 0.032	0.83	0.25	0.076	0.145	—	1000
MVI10-250DFX	09998	12-10	0.250 x 0.032	0.95	0.25	0.128	0.250	50	500
MVI10-250DFK	69578	12-10	0.250 x 0.032	0.95	0.25	0.128	0.250	—	500



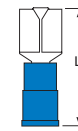
MVI18-187DF



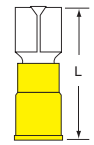
MVI18-250DF



MVI14-187DF



MVI14-250DF



MVI10-250DF

Wire Range

22-18

22-18

16-14

16-14

12-10

Suggested Mate

MVU18-187DM

MVU18-250DM

MVU14-187DM

MVU14-250DM

MVU10-250DM

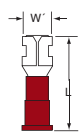
3M™ Female Disconnects — Nylon Insulated with Insulation Grip



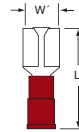
Product Number ¹	UPC (054007-)	Wire Range (AWG)**	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MNG18-110DFX-A	57444**	22-18	0.187 x 0.020	0.77	0.25	0.085	0.145	—	1000
MNG18-110DFK-A	57445**	22-18	0.250 x 0.032	0.86	0.25	0.080	0.145	100	500
MNG18-187DFK	02405	22-18	0.110 x 0.020	0.77	—	—	0.16	—	—
MNG18-250DFX	02393	22-18	0.110 x 0.020	0.77	—	—	0.16	—	—
MNG18-250DFK	02369	22-18	0.250 x 0.032	0.86	0.25	0.080	0.145	—	1000
MNG14-110DFX-A*	57427**	16-14	0.110 x 0.020	0.77	—	—	0.20	100	500
MNG14-110DFK-A*	57437**	16-14	0.110 x 0.020	0.77	—	—	0.20	—	1000
MNG14-187DFX	22914	16-14	0.187 x 0.020	0.77	0.25	0.085	0.145	100	500
MNG14-187DFK	01773	16-14	0.187 x 0.020	0.77	0.25	0.085	0.145	—	1000
MNG14-250DFX	22930	16-14	0.250 x 0.032	0.86	0.25	0.080	0.145	100	500
MNG14-250DFK	01774	16-14	0.250 x 0.032	0.86	0.25	0.080	0.145	—	1000
MNG10-375DFK*	02053	12-10	0.375 x 0.050	1.23	0.25	0.175	0.250	—	500

* Not UL Listed or CSA Certified

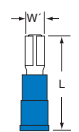
** UPC prefix 051128



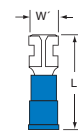
MNG18-187DF



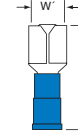
MNG18-250DF



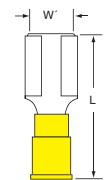
MNG14-110DF-A



MNG14-187DF



MNG14-250DF



MNG10-375DF

Wire Range

22-18

22-18

16-14

16-14

16-14

12-10

Suggested Mate

MNG18-187DM

MNG18-250DM

0.110 Male Tab

MNG14-187DM

MNG14-250DM

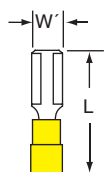
0.375 Male Tab

¹Product number ending in X = box; product number ending with K = bulk.

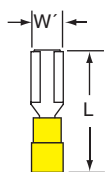
3M™ Female Disconnects — Vinyl Insulated with Insulation Grip

Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MVG24-110DFK*	95151	26-20	0.110 x 0.020	0.63	0.13	0.055	0.093	—	1000
MVG24-110/32DFX*	95176	26-20	0.110 x 0.032	0.63	0.13	0.055	0.093	100	500

* Not UL Listed or CSA Certified



MVG24-110DF



MVG24-110/32DF

Wire Range

26-20

26-20

Suggested Mate

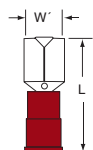
0.110 Male Tab

0.110 Male Tab

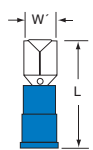
3M™ Female Disconnects — Nylon Insulated with Insulation Grip Interlock Barrel



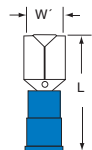
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MNGI18-250DFX	09990	22-18	0.250 x 0.032	0.83	0.25	0.076	0.145	100	500
MNGI18-250DFK	69572	22-18	0.250 x 0.032	0.83	0.25	0.076	0.145	—	1000
MNGI14-187DFX	09987	16-14	0.187 x 0.020	0.77	0.25	0.080	0.145	100	500
MNGI14-187DFK	69569	16-14	0.187 x 0.020	0.77	0.25	0.080	0.145	—	1000
MNGI14-250DFX	09988	16-14	0.250 x 0.032	0.83	0.25	0.076	0.145	100	500
MNGI14-250DFK	69570	16-14	0.250 x 0.032	0.83	0.25	0.076	0.145	—	1000
MNGI10-250DFX	09986	12-10	0.250 x 0.032	0.94	0.25	0.128	0.250	50	500
MNGI10-250DFK	69568	12-10	0.250 x 0.032	0.94	0.25	0.128	0.250	—	500



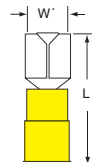
MNGI18-250DF



MNGI14-187DF



MNGI14-250DF



MNGI10-250DF

Wire Range

22-18

16-14

16-14

12-10

Suggested Mate

MNGI18-250DM

MNGI14-187DM

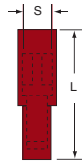
MNGI14-250DM

MNGI10-250DM

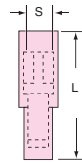
¹Product number ending in X = box; product number ending with K = bulk.

3M™ Female Disconnects — Nylon Insulated with Insulation Grip Bullet Style

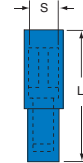
Product Number ¹	UPC (051138-)	Wire Range (AWG)	Mating Snap Diameter		Maximum Insulation Diameter	Terminals per:	
			S	L		Carton	Case
MNG18-156DFIK-A	98078	22-18	0.156	0.99	0.15	—	1000
MNG18-180DFIK-A	98084	22-18	0.180	1.00	0.15	—	1000
MNG14-156DFIX-A	98118	16-14	0.156	0.99	0.19	100	500
MNG14-156DFIK-A	98117	16-14	0.156	0.99	0.19	—	1000
MNG14-180DFIX-A	98128	16-14	0.180	1.00	0.19	100	500
MNG14-180DFIK-A	98127	16-14	0.180	1.00	0.19	—	1000



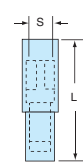
MNG18-156DFI-A



MNG18-180DFI-A



MNG14-156DFI-A



MNG14-180DFI-A

Wire Range

22-18

22-18

16-14

16-14

Suggested Mate

MNG18-156DM

MNG18-180DM

MNG14-156DM

MNG14-180DM

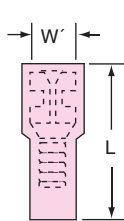
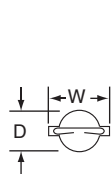
3M™ Female Disconnects — Nylon Fully Insulated Butted Seam



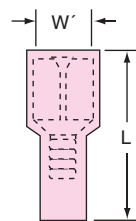
Product Number ¹	UPC (054007-)	Wire Range (AWG)**	Mates with Male Tab Width (W') x Thickness	L			Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per:	
				L	W	D				Carton	Case
MNU18-187DFIX	02353	22-18	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	100	500
MNU18-187DFIK	02370	22-18	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	—	1000
MNU18-250DFIX	02286	22-18	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	100	500
MNU18-250DFIK	02290	22-18	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	—	1000
MNU14-187DFIX	02387	16-14	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	100	500
MNU14-187DFIK	02384	16-14	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	—	1000
MNU14-250DFIX	02287	16-14	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	50	500
MNU14-250DFIK	02291	16-14	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	—	1000

Not UL Listed or CSA Certified

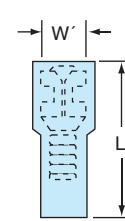
**For #10-12 AWG, see MNI10-250DFI



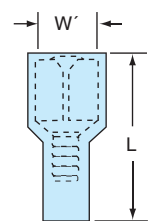
MNU18-187DFI



MNU18-250DFI



MNU14-187DFI



MNU14-250DFI

Stud Size

22-18

22-18

16-14

16-14

Wire Range

Suggested Mate

MNU18-187DMI

MNU18-250DMI

MNU14-187DMI

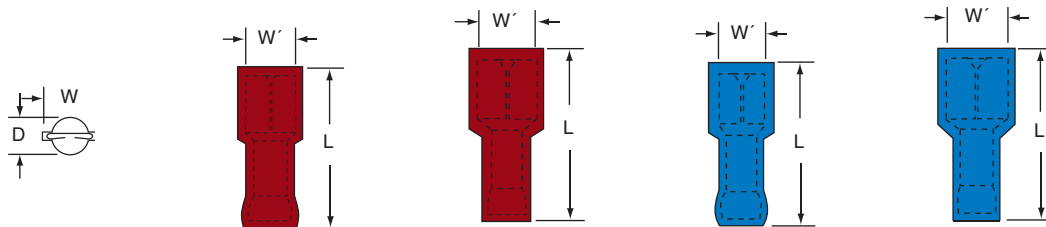
MNU14-250DMI

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Female Disconnects — Nylon Fully Insulated with Insulation Grip



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	W	D	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MNG18-187DFIX	11704	22-18	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	100	500
MNG18-187DFIK	11816	22-18	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	—	1000
MNG18-250DFIX	11705	22-18	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	100	500
MNG18-250DFIK	02293	22-18	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	—	1000
MNG14-187DFIX	11715	16-14	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	100	500
MNG14-187DFIK	15975	16-14	0.187 x 0.020	0.81	0.30	0.23	0.25	0.085	0.145	—	1000
MNG14-250DFIX	11716	16-14	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	100	500
MNG14-250DFIK	01841	16-14	0.250 x 0.032	0.87	0.37	0.23	0.25	0.080	0.145	—	1000



Stud Size

Wire Range

Suggested Mate

MNG18-187DFI

MNG18-250DFI

MNG14-187DFI

MNG14-250DFI

22-18

22-18

16-14

16-14

MNG18-187DMI

MNG18-250DMI

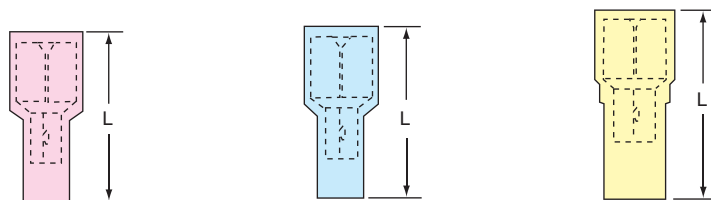
MNG14-187DMI

MNG14-250DMI

3M™ Female Disconnects — Nylon Fully Insulated Interlock Barrel



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MNI18-250DFIX	09995	22-18	0.250 x 0.032	0.91	0.25	0.076	0.145	100	500
MNI18-250DFIK	69577	22-18	0.250 x 0.032	0.91	0.25	0.076	0.145	—	1000
MNI14-250DFIX	09993	16-14	0.250 x 0.032	0.91	0.25	0.076	0.145	100	500
MNI14-250DFIK	69575	16-14	0.250 x 0.032	0.91	0.25	0.076	0.145	—	1000
MNI10-250DFIX	09991	12-10	0.250 x 0.032	0.99	0.25	0.128	0.250	50	500
MNI10-250DFIK	69573	12-10	0.250 x 0.032	0.99	0.25	0.128	0.250	—	500



MNI18-250DFI

MNI14-250DFI

MNI10-250DFI

Wire Range

Suggested Mate

22-18

16-14

12-10

MNI18-250DMI

MNI14-250DMI

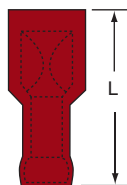
MNI10-250DMI

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Female Disconnects — Nylon Fully Insulated with Insulation Grip Interlock Barrel



Product Number*	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MNGI18-250DFIX	09985	22-18	0.250 x 0.032	0.87	0.25	0.076	0.145	100	500
MNGI18-250DFIK	69567	22-18	0.250 x 0.032	0.87	0.25	0.076	0.145	—	1000
MNGI14-250DFIX	09983	16-14	0.250 x 0.032	0.87	0.25	0.076	0.145	100	500
MNGI14-250DFIK	69565	16-14	0.250 x 0.032	0.87	0.25	0.076	0.145	—	1000
MNGI10-250DFIX	09981	12-10	0.250 x 0.032	0.99	0.25	0.128	0.250	50	500
MNGI10-250DFIK	69563	12-10	0.250 x 0.032	0.99	0.25	0.128	0.250	—	500



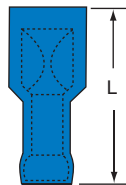
MNGI18-250DFI

Wire Range

22-18

Suggested Mate

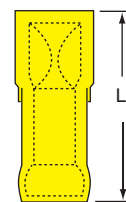
MNG18-250DMI



MNGI14-250DFI

16-14

MNG14-250DMI



MNGI10-250DFI

12-10

MNG10-250DMI

3M™ Female Disconnects — T-Tab Nylon Insulated Self-Stripping



Product Number*	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	M	W	Maximum Insulation Diameter	Terminals per: Carton	Case
951X	12312	22-18	0.250 x 0.032	0.73	0.44	0.38	0.150	50	500
951K	12313	22-18	0.250 x 0.032	0.73	0.44	0.38	0.150	—	1000
952X	08427	16-14	0.250 x 0.032	0.73	0.44	0.38	0.150	50	500
952K	08428	16-14	0.250 x 0.032	0.73	0.44	0.38	0.150	—	1000
953X	12314	12	0.250 x 0.032	0.73	0.44	0.38	0.150	50	500
953K	12315	12	0.250 x 0.032	0.73	0.44	0.38	0.150	—	1000



951

Wire Range

22-18

Suggested Mate

MNG18-250DMI



952

18-16-14

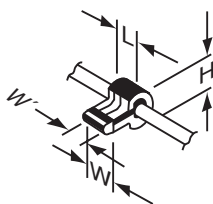
MNG14-250DMI



953

12

MNG10-250DMI

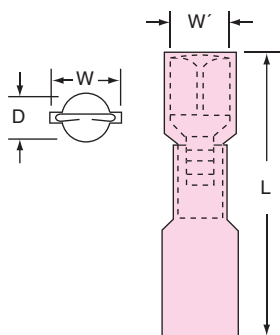


*Product number ending in X = box; product number ending with K = bulk.

3M™ Female Disconnects — Heat Shrink Nylon Fully Insulated

Product Number	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	W	D	Barrel Length	Barrel I.D.	Terminals per: Bag	Case
MNHU18-250DFIX*	06354	22-18	0.250 x 0.032	1.2	0.37	0.23	0.25	0.080	25	100
MNHU18-250DFIK*	06355	22-18	0.250 x 0.032	1.2	0.37	0.23	0.25	0.080	—	250
MNHU14-250DFIX*	06338	16-14	0.250 x 0.032	1.2	0.37	0.23	0.25	0.080	25	100
MNHU14-250DFIK*	06339	16-14	0.250 x 0.032	1.2	0.37	0.23	0.25	0.080	—	250
MNHU10-250DFIX	06314	12-10	0.250 x 0.032	1.2	0.39	0.32	0.25	0.165	25	100
MNHI10-250DFIK	06315	12-10	0.250 x 0.032	1.2	0.39	0.32	0.25	0.165	—	250

*Windowless receptacle



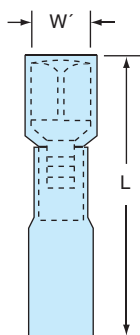
MNHU18-250DFI

Wire Range

22-18

Suggested Mate

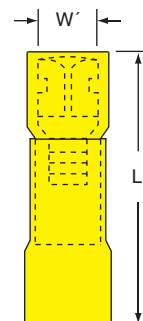
MNHU18-250DMI



MNHU14-250DFI

16-14

MNHU14-250DMI



MNHI10-250DFI

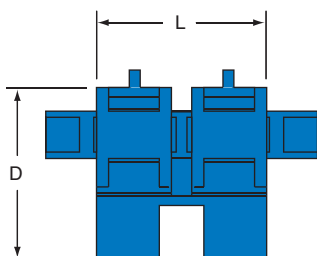
12-10

MNHU10-250DMI

3M™ Female Disconnects — Fuseholder Polypropylene Insulated Self-Stripping

Product Number	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	H	D	Maximum Insulation Diameter	Terminals per: Carton	Case
972X	06171	18-14	0.205 x 0.025	1.37	0.44	0.95	0.145	25	250
972K	06172	18-14	0.205 x 0.025	1.37	0.44	0.95	0.145	—	1000

For use with flat blade automotive type fuse of 30V or less.



972

Wire Range

18-14

Suggested Mate

ATO Auto Fuse

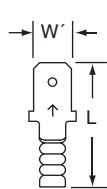
*Product number ending in X = box; product number ending with K = bulk.

Male Disconnects

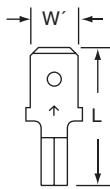
3M™ Male Disconnects — Non-Insulated Butted Seam



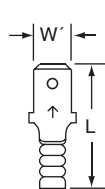
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MU18-187DMK	02372	22-18	0.187 x 0.020	0.64	0.24	0.080	—	1000
MU18-250DMK	02364	22-18	0.250 x 0.032	0.73	0.25	0.065	—	1000
MU14-187DMK	01783	16-14	0.187 x 0.020	0.64	0.24	0.080	—	1000
MU14-250DMX	22971	16-14	0.250 x 0.032	0.73	0.25	0.085	100	500
MU14-250DMK	01784	16-14	0.250 x 0.032	0.73	0.25	0.085	—	1000
MU10-250DMX	23912	12-10	0.250 x 0.032	0.75	0.25	0.150	100	500
MU10-250DMK	02056	12-10	0.250 x 0.032	0.75	0.25	0.150	—	500



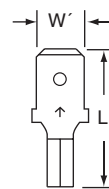
MU18-187DM



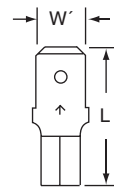
MU18-250DM



MU14-187DM



MU14-250DM



MU10-250DM

Wire Range

22-18

22-18

16-14

16-14

12-10

Suggested Mate

MU18-187DF

MU18-250DF

MU14-187DF

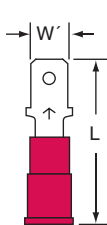
MU14-250DF

MU10-250DF

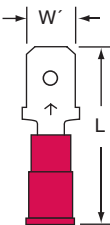
3M™ Male Disconnects — Vinyl Insulated Butted Seam



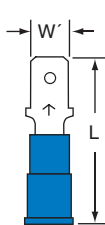
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MVU18-187DMK	02375	22-18	0.187 x 0.020	0.85	0.24	0.080	0.145	—	1000
MVU18-250DMX	11822	22-18	0.250 x 0.032	0.93	0.25	0.065	0.145	100	500
MVU18-250DMK	02376	22-18	0.250 x 0.032	0.93	0.25	0.065	0.145	—	1000
MVU14-187DMX	22989	16-14	0.187 x 0.020	0.85	0.24	0.080	0.145	100	500
MVU14-187DMK	01789	16-14	0.187 x 0.020	0.85	0.24	0.080	0.145	—	1000
MVU14-250DMX	22997	16-14	0.250 x 0.032	0.93	0.25	0.085	0.170	100	500
MVU14-250DMK	01790	16-14	0.250 x 0.032	0.93	0.25	0.085	0.170	—	1000
MVU10-250DMX	23920	12-10	0.250 x 0.032	1.05	0.25	0.150	0.250	50	500
MVU10-250DMK	02059	12-10	0.250 x 0.032	1.05	0.25	0.150	0.250	—	500



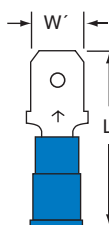
MVU18-187DM



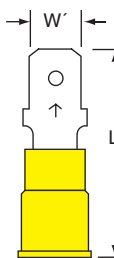
MVU18-250DM



MVU14-187DM



MVU14-250DM



MVU10-250DM

Wire Range

22-18

22-18

16-14

16-14

12-10

Suggested Mate

MVU18-187DF

MVU18-250DF

MVU14-187DF

MVU14-250DF

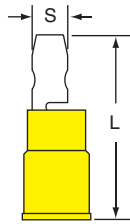
MVU10-250DF

¹Product number ending in X = box; product number ending with K = bulk.

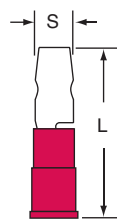
3M™ Male Disconnects — Vinyl Insulated Butted Seam Bullet Style



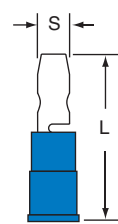
Product Number ¹	UPC (051138-)	Wire Range (AWG)	Mating Snap Diameter		Maximum Insulation Diameter	Terminals per:	
			S	L		Carton	Case
MVU18-156DMK-A	98094	22-18	0.156	0.85	0.15	—	1000
MVU18-180DMK-A	98145	22-18	0.180	0.83	0.15	—	1000
MVU14-156DMX-A	98147	16-14	0.156	0.85	0.170	100	500
MVU14-156DMK-A	98149	16-14	0.156	0.85	0.170	—	1000
MVU14-180DMX-A	98160	16-14	0.180	0.83	0.171	100	500
MVU14-180DMK	98163	16-14	0.180	0.83	0.171	—	1000



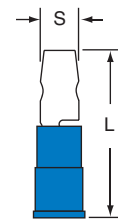
MVU18-156DM



MVU18-180DM



MVU14-156DM



MVU14-180DM

Wire Range

22-18

22-18

16-14

16-14

Suggested Mate

MNU18-156DFI

MNU18-180DFI

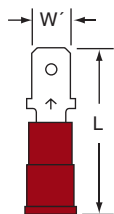
MNU14-156DFI

MNU14-180DFI

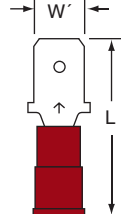
3M™ Male Disconnects — Nylon Insulated with Insulation Grip



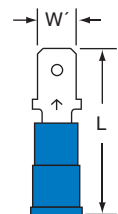
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per:	
								Carton	Case
MNG18-187DMK	02377	22-18	0.187 x 0.020	0.84	0.24	0.080	0.145	—	1000
MNG18-250DMX	02365	22-18	0.250 x 0.032	0.92	0.25	0.065	0.145	100	500
MNG18-250DMK	02378	22-18	0.250 x 0.032	0.92	0.25	0.065	0.145	—	1000
MNG14-187DMX	23003	16-14	0.187 x 0.020	0.84	0.24	0.080	0.145	100	500
MNG14-187DMK	01787	16-14	0.187 x 0.020	0.84	0.24	0.080	0.145	—	1000
MNG14-250DMX	23011	16-14	0.250 x 0.032	0.94	0.25	0.085	0.170	100	500
MNG14-250DMK	01788	16-14	0.250 x 0.032	0.94	0.25	0.085	0.170	—	1000
MNG10-250DMX	23938	12-10	0.250 x 0.032	1.05	0.25	0.150	0.250	50	500
MNG10-250DMK	02058	12-10	0.250 x 0.032	1.05	0.25	0.150	0.250	—	500



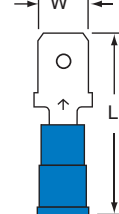
MNG18-187DM



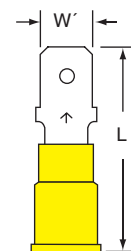
MNG18-250DM



MNG14-187DM



MNG14-250DM



MNG10-250DM

Wire Range

22-18

22-18

16-14

16-14

12-10

Suggested Mate

MNG18-187DF

MNG18-250DF

MNG14-187DF

MNG14-250DF

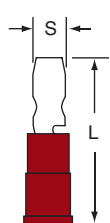
MNG10-250DF

¹Product number ending in X = box; product number ending with K = bulk.

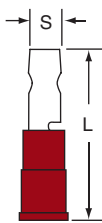
3M™ Male Disconnects — Nylon Insulated with Insulation Grip Bullet Style



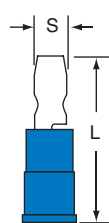
Product Number ¹	UPC (051138-)	Wire Range (AWG)	Mating Snap Diameter		Maximum Insulation Diameter	Terminals per:	
			S	L		Carton	Case
MNG18-156DMK-A	98088	22-18	0.156	0.87	0.15	—	1000
MNG18-180DMK-A	98100	22-18	0.180	0.87	0.15	—	1000
MNG14-156DMX-A	98139	16-14	0.156	0.87	0.19	100	500
MNG14-156DMK-A	98137	16-14	0.156	0.87	0.19	—	1000
MNG14-180DMK-A	98155	16-14	0.180	0.87	0.19	—	1000



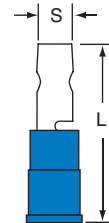
MNG18-156DM-A



MNG18-180DM-A



MNG14-156DM-A



MNG14-180DM-A

Wire Range

22-18

22-18

16-14

16-14

Suggested Mate

MNG18-156DFI

MNG18-180DFI

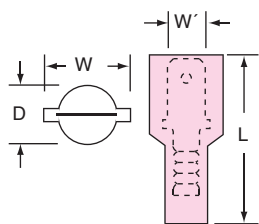
MNG14-156DFI

MNG14-180DFI

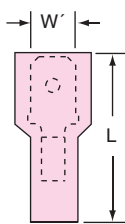
3M™ Male Disconnects — Nylon Fully Insulated Butted Seam



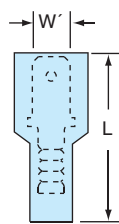
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Male Tab Width (W') x Thickness	L W D			Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per:	
				L	W	D				Carton	Case
MNU18-187DMIX	02354	22-18	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	100	500
MNU18-187DMIK	02379	22-18	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	—	1000
MNU18-250DMIX	02289	22-18	0.250 x 0.032	0.95	0.44	0.30	0.25	0.065	0.145	100	500
MNU18-250DMIK	02299	22-18	0.250 x 0.032	0.95	0.44	0.30	0.25	0.065	0.145	—	1000
MNU14-187DMIX	02381	16-14	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	100	500
MNU14-187DMIK	02385	16-14	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	—	1000
MNU14-250DMIX	02306	16-14	0.250 x 0.032	0.95	0.44	0.30	0.25	0.085	0.170	50	500
MNU14-250DMIK	02300	16-14	0.250 x 0.032	0.95	0.44	0.30	0.25	0.085	0.170	—	1000
MNU10-250DMIX	02307	12-10	0.250 x 0.032	1.05	0.47	0.39	0.25	0.150	0.250	50	500
MNU10-250DMIK	02301	12-10	0.250 x 0.032	1.05	0.47	0.39	0.25	0.150	0.250	—	500



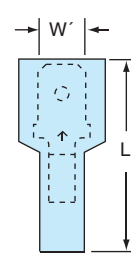
MNU18-187DMI



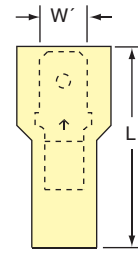
MNU18-250DMI



MNU14-187DMI



MNU14-250DMI



MNU10-250DMI

Wire Range

22-18

22-18

16-14

16-14

12-10

Suggested Mate

MNU18-187DFI

MNU18-250DFI

MNU14-187DFI

MNU14-250DFI

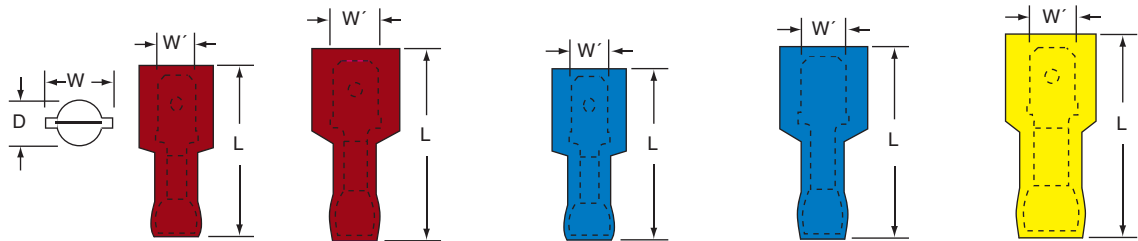
MNU10-250DFI

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Male Disconnects — Nylon Fully Insulated with Insulation Grip



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Male Tab Width (W') x Thickness	L	W	D	Barrel Length	Barrel I.D.	Maximum Insulation Diameter	Terminals per: Carton	Case
MNG18-187DMIX	11710	22-18	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	100	500
MNG18-187DMIK	11794	22-18	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	—	1000
MNG18-250DMIX	11711	22-18	0.250 x 0.032	0.95	0.44	0.30	0.25	0.065	0.145	100	500
MNG18-250DMIK	02302	22-18	0.250 x 0.032	0.95	0.44	0.30	0.25	0.065	0.145	—	1000
MNG14-187DMIX	11722	16-14	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	100	500
MNG14-187DMIK	02386	16-14	0.187 x 0.020	0.87	0.37	0.30	0.24	0.080	0.145	—	1000
MNG14-250DMIX	11723	16-14	0.250 x 0.032	0.95	0.44	0.30	0.25	0.085	0.170	100	500
MNG14-250DMIK	02249	16-14	0.250 x 0.032	0.95	0.44	0.30	0.25	0.085	0.170	—	1000
MNG10-250DMIX	11729	12-10	0.250 x 0.032	1.05	0.47	0.39	0.25	0.150	0.250	50	500
MNG10-250DMIK	02303	12-10	0.250 x 0.032	1.05	0.47	0.39	0.25	0.150	0.250	—	500



MNG18-187DMI

MNG18-250DMI

MNG14-187DMI

MNG14-250DMI

MNG10-250DMI

Wire Range

22-18

22-18

16-14

16-14

12-10

Suggested Mate

MNG18-187DFI

MNG18-250DFI

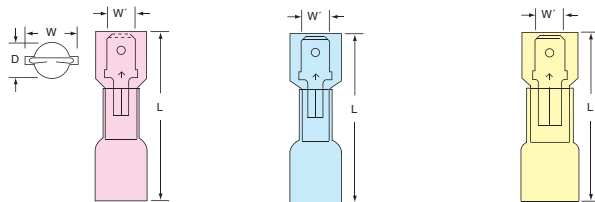
MNG14-187DFI

MNG14-250DFI

MNG10-250DFI

3M™ Male Disconnects — Heat Shrink Nylon Fully Insulated Butted Seam

Product Number ¹	UPC (054007-)	Wire Range (AWG)	Male Tab Width (W') x Thickness	L	W	D	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MNHU18-250DMIX	06356	22-18	0.250 x 0.032	1.2	0.44	0.30	0.25	0.065	25	100
MNHU18-250DMIK	06357	22-18	0.250 x 0.032	1.2	0.44	0.30	0.25	0.065	—	250
MNHU14-250DMIX	06340	16-14	0.250 x 0.032	1.2	0.44	0.30	0.25	0.085	25	100
MNHU14-250DMIK	06341	16-14	0.250 x 0.032	1.2	0.44	0.30	0.25	0.085	—	250
MNHU10-250DMIX	06316	12-10	0.250 x 0.032	1.2	0.47	0.39	0.25	0.150	25	100
MNHU10-250DMIK	06317	12-10	0.250 x 0.032	1.2	0.47	0.39	0.25	0.150	—	250



MNHU18-250DMI

MNHU14-250DMI

MNHU10-250DMI

Wire Range

22-18

16-14

12-10

Suggested Mate

MNHU18-250DFI

MNHU14-250DFI

MNHU10-250DFI

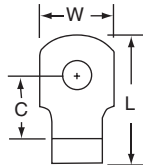
¹Product number ending in X = box; product number ending with K = bulk.

Flags and Multi-Stack Disconnects

3M™ Flags — Non-Insulated Ring Type



Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU18-6R/FLAG	01294	22-18	6	0.38	0.34	0.66	0.030	0.26	0.070	1000

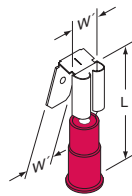


MU18-6R/FLAG

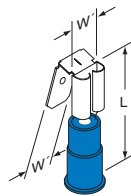
Stud Size	6
Wire Range	22-18

3M™ Multi-Stack Disconnects — Vinyl Insulated Butted Seam

Product Number ¹	UPC (051138-)	Wire Range (AWG)	Mates with Female & Male Width (W') x Thickness	L	Maximum Insulation Diameter	Terminals per Carton	Case
MVU18-250DMFX-A	98063	22-18	0.250 x 0.032	0.87	0.145	100	500
MVU18-250DMFK-A	98062	22-18	0.250 x 0.032	0.87	0.145	—	1000
MVU14-250DMFX-A	98074	16-14	0.250 x 0.032	0.87	0.170	100	500
MVU14-250DMFK-A	98073	16-14	0.250 x 0.032	0.87	0.170	—	1000



MVU18-250DMF-A



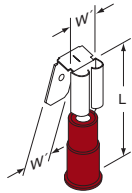
MVU14-250DMF-A

Wire Range	22-18	16-14
Suggested Mate	0.250 Male/Female	0.250 Male/Female

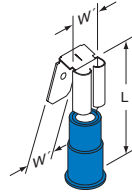
¹Product number ending in X = box; product number ending with K = bulk.

3M™ Multi-Stack Disconnects — Vinyl Insulated Butted Seam

Product Number ¹	UPC (051138-)	Wire Range (AWG)	Mates with Female & Male Width (W') x Thickness	L	Maximum Insulation Diameter	Terminals per Case
MNG18-250DMFX-A	98059	22-18	0.250 x 0.032	0.86	0.145	1000
MNG18-250DMFK-A	98058	22-18	0.250 x 0.032	0.86	0.145	1000
MNG14-250DMFX-A	98068	16-14	0.250 x 0.032	0.88	0.170	1000
MNG14-250DMFK-A	98067	16-14	0.250 x 0.032	0.88	0.170	1000



MNG18-250DMF-A



MNG14-250DMF-A

Wire Range

22-18

16-14

Suggested Mate

0.250 Male/Female

0.250 Male/Female

Adapters

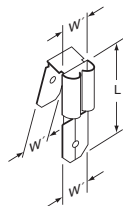
3M™ Adapters — Non-Insulated Double Male-Female



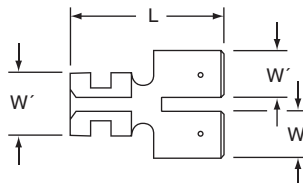
Product Number ¹	UPC (054007-)	Mates with Female & Male Width (W') x Thickness	L	Terminals per: Carton	Case
MA250DMFMX-A*	57452**	0.250 x 0.032	0.78	50	500
MA250DMFMK-A*	57451**	0.250 x 0.032	0.78	—	500
MA250DMMFX	02308	0.250 x 0.032	0.76	50	500
MA250DMMFK	02273	0.250 x 0.032	0.76	—	500

* Not UL Listed or CSA Certified

** UPC prefix 051128-



MA250DMFM-A



MA250DMMF

Suggested Mate

0.250 Males (2)/Female

0.250 Males (2)/Female

Suggested Mate

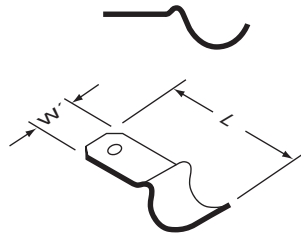
0.250 Male/Female

0.250 Male/Female

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Adapters — Non-Insulated Male Fuse-Clip

Product Number*	UPC (054007-)	Male Tab Width (W') x Thickness	L	Terminals per Case
MA250DM/FUSEK	02269	0.250 x 0.030	0.77	500

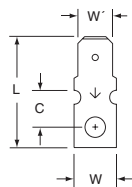


MA250DM/FUSE

Suggested Mate 0.250 Female/Fuse
 Suggested Mate 0.250 Male/Female

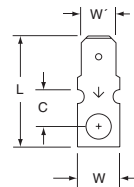
3M™ Adapters — Non-Insulated Male Rectangular Tongue

Product Number*	UPC (054007-)	Stud Size	Male Tab Width (W') x Thickness	W	C	L	Terminals per Case
MA250DM/6RRK	02225	6	0.250 x 0.032	0.30	0.26	0.80	500
MA250DM/8RRK	02226	8	0.250 x 0.032	0.30	0.26	0.80	500
MA250DM/10RRK	02227	10	0.250 x 0.032	0.30	0.26	0.80	500



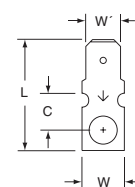
MA250DM/6RR

Suggested Mate 0.250 Female Disconnect



MA250DM/8RR

Suggested Mate 0.250 Female Disconnect

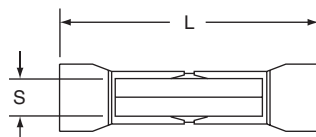


MA250DM/10RR

Suggested Mate 0.250 Female Disconnect

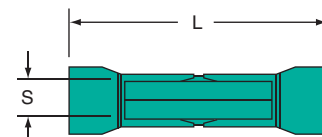
3M™ Adapters — Vinyl Insulated Double Female Disconnect

Product Number*	UPC (054007-)	Male Tab Width (W') x Thickness	L	Terminals per Case
MVA156DFFIK	14358	0.156	1.31	500
MVA180DFFIK	02236	0.180	1.31	500



MVA156DFFI

Suggested Mate 0.156 Male Bullets
 Suggested Mate 0.250 Male/Female



MVA180DFFI

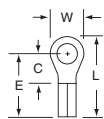
Suggested Mate 0.180 Male Bullets
 Suggested Mate 0.250 Male/Female

*Product number ending in X = box; product number ending with K = bulk.

High Temperature

3M™ High Temperature Ring Tongues* — Butted Seam 900°F (482°C)

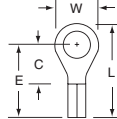
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton	Case
MU18-6RHT/SX	49607	22-18	6	0.25	0.22	0.60	0.47	0.030	0.25	0.070	100	500
MU18-6RHT/SK	01297	22-18	6	0.25	0.22	0.60	0.47	0.030	0.25	0.070	—	1000
MU18-10RHTX	49608	22-18	10	0.33	0.29	0.70	0.54	0.030	0.25	0.070	100	500
MU18-10RHTK	01155	22-18	10	0.33	0.29	0.70	0.54	0.030	0.25	0.070	—	1000
MU14-6RHT/SX	49629	16-14	6	0.25	0.22	0.60	0.47	0.030	0.25	0.090	100	500
MU14-6RHT/SK	01758	16-14	6	0.25	0.22	0.60	0.47	0.030	0.25	0.090	—	1000
MU14-10RHTX	15629	16-14	10	0.33	0.29	0.70	0.54	0.030	0.25	0.090	100	500
MU14-10RHTK	01759	16-14	10	0.33	0.29	0.70	0.54	0.030	0.25	0.090	—	1000
MU14-14RHTX	49630	16-14	1/4	0.56	0.40	0.93	0.65	0.030	0.25	0.090	100	500
MU14-14RHTK	01760	16-14	1/4	0.56	0.40	0.93	0.65	0.030	0.25	0.090	—	1000
MU10-10RHTX	15637	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	50	500
MU10-10RHTK	02045	12-10	10	0.38	0.29	0.73	0.54	0.040	0.25	0.135	—	500
MU10-14RHTK	02046	12-10	1/4	0.59	0.44	0.99	0.69	0.040	0.25	0.135	—	500
MU8-14RHT/SK	02142	8	1/4	0.47	0.40	0.95	0.71	0.050	0.31	0.185	—	200
MU6-38RHTK	02171	6	3/8	0.63	0.52	1.22	0.91	0.050	0.39	0.255	—	200
MU4-38RHTK	02196	4	3/8	0.68	0.53	1.34	1.00	0.075	0.47	0.285	—	200



MU18-6RHT/S

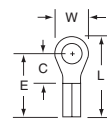
Stud Size
Wire Range

6
22-18



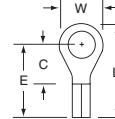
MU18-10RHT

10
22-18



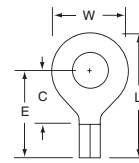
MU14-6RHT/S

6
16-14



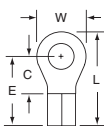
MU14-10RHT

10
16-14



MU14-14RHT

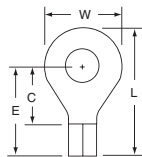
1/4
16-14



MU10-10RHT

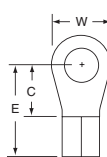
Stud Size
Wire Range

10
12-10



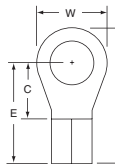
MU10-14RHT

1/4
12-10



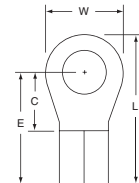
MU8-14RHT/S

1/4
8



MU6-38RHT

3/8
6



MU4-38RHT

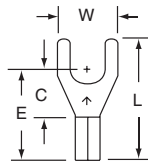
3/8
4

*Steel with nickel plating

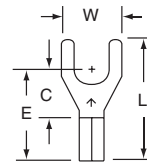
¹Product number ending in X = box; product number ending with K = bulk.

3M™ High Temperature Standard Forks* — Butted Seam 900°F (482°C)

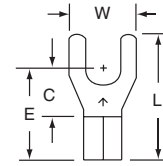
Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU18-10FHTK	01333	22-18	10	0.34	0.29	0.70	0.54	0.030	0.25	0.070	1000
MU14-10FHTK	01842	16-14	10	0.34	0.29	0.70	0.54	0.030	0.25	0.090	1000
MU10-10FHTK	02095	12-10	10	0.38	0.28	0.73	0.53	0.040	0.25	0.135	500



MU18-10FHT



MU14-10FHT



MU10-10FHT

Stud Size

10

10

10

Wire Range

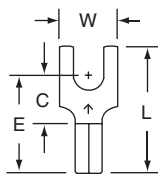
22-18

16-14

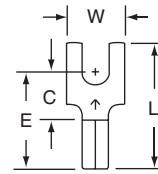
12-10

3M™ High Temperature Block Forks* — Butted Seam 900°F (482°C)

Product Number ¹	UPC (054007-)	Wire Range (AWG)	Stud Size	W	C	L	E	Thickness	Barrel Length	Barrel I.D.	Terminals per Case
MU18-6FBHTK	01334	22-18	6	0.30	0.25	0.65	0.50	0.030	0.25	0.070	1000
MU14-6FBHTK	01843	16-14	6	0.30	0.25	0.65	0.50	0.030	0.25	0.090	1000



MU18-6FBHT



MU14-6FBHT

Stud Size

6

6

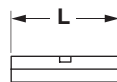
Wire Range

22-18

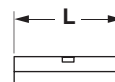
16-14

3M™ High Temperature Butt Connectors* — Butted Seam 900°F (482°C)

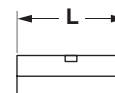
Product Number ¹	UPC (054007-)	Wire Range (AWG)	L	Thickness	Barrel Length	Barrel I.D.	Terminals per: Carton Case
MU18BCHTX	49609	22-18	0.56	0.030	0.25	0.070	100 500
MU18BCHTK	01299	22-18	0.56	0.030	0.25	0.070	— 1000
MU14BCHTX	49631	16-14	0.56	0.030	0.25	0.090	100 500
MU14BCHTK	01761	16-14	0.56	0.030	0.25	0.090	— 1000
MU10BCHTX	49645	12-10	0.56	0.040	0.25	0.135	50 500
MU10BCHTK	02232	12-10	0.56	0.040	0.25	0.135	— 500



MU18BCHT



MU14BCHT



MU10BCHT

Wire Range

22-18

16-14

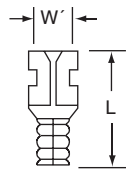
12-10

*Steel with nickel plating

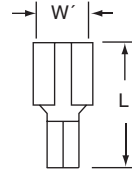
¹Product number ending in X = box; product number ending with K = bulk.

3M™ High Temperature Female Disconnects* — Butted Seam 900°F (482°C)

Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Terminals per: Carton Case	
MU14-187DFHTK	01762	16-14	0.187 x 0.020	0.58	0.25	0.085	—	1000
MU14-250DFHTX	49632	16-14	0.250 x 0.032	0.64	0.23	0.095	100	500
MU14-250DFHTK	01763	16-14	0.250 x 0.032	0.64	0.23	0.095	—	1000



MU14-187DFHT



MU14-250DFHT

Wire Range

16-14

16-14

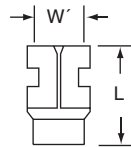
Suggested Mate

0.187 High Temperature Male Tab

MU14-250DMHT

3M™ High Temperature Female Disconnects* — Butted Seam Flag 900°F (482°C)

Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Terminals per Case	
MU14-250DFHT/FLAGK	01839	16-14	0.250 x 0.032	0.51	0.26	0.095	1000	



MU14-250DFHT/FLAG

Wire Range

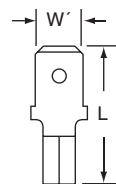
16-14

Suggested Mate

MU14-250DMHT

3M™ High Temperature Male Disconnects* — Butted Seam 900°F (482°C)

Product Number ¹	UPC (054007-)	Wire Range (AWG)	Mates with Male Tab Width (W') x Thickness	L	Barrel Length	Barrel I.D.	Terminals per: Carton Case	
MU14-250DMHTX	49633	16-14	0.250 x 0.032	0.73	0.25	0.090	100	500
MU14-250DMHTK	01765	16-14	0.250 x 0.032	0.73	0.25	0.090	—	1000



MU14-250DMHT

Wire Range

16-14

Suggested Mate

MU14-250DFHT

*Steel with nickel plating

¹Product number ending in X = box; product number ending with K = bulk.

Closed End Connectors

3M™ Scotchlok Closed End Connector, Nylon Insulated, Copper Insert S-11-A and S-31-A

3M Scotchlok electrical crimp sleeve connectors make fast work of splicing 22 to 10 AWG copper conductors. Smooth flared entry makes wire insertion fast — simply twist conductors together and crimp. The S-11-A and S-31-A (copper) are insulated, closed-end crimp sleeve connectors. With a rugged, yet resilient nylon insulator, use these connectors in light fixtures, appliances and other electrical OEM applications.



S-11-A Solid/Stranded AWG Wire Combinations: Copper Wire Only, "CU ONLY"

WIRE COMBINATIONS

2 to 5 #22
1 to 4 #22 w/ 1 or 2 #20
1 to 3 #22 w/ 1 #18
1 #22 w/ 1 #16
2 or 3 #20

S-31-A Solid/Stranded AWG Wire Combinations: Copper Wire Only, "CU ONLY"

WIRE COMBINATIONS

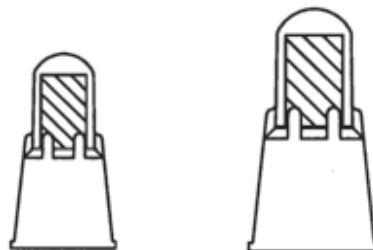
1 #22 w/ 1 #12 or #10	1 #20 w/ 1 #16 w/ 1 #12
1 #22 w/ 2 #14 or #16	1 #18 w/ 1 #14
1 #22 w/ 1 #20 w/ 1 #12 or #14	1 #18 w/ 1 #12
1 #22 w/ 1 #18 w/ 1 #12 or #14	1 #18 w/ 2 #16
1 #22 w/ 1 #16 w/ 1 #12 or #14	1 #18 w/ 1 #16 w/ 1 #12 or #14
1 #22 w/ 1 #14 w/ 1 #12	1 #16 w/ 1 #12 or #14
1 or 2 #20 w/ 1 or 2 #14	3 #16
1 or 2 #20 w/ 1 #12	1 #14 w/ 1 #12
1 #20 w/ 1 #10	2 #14

Specification Information for Nylon Insulated Closed End Connectors (Copper Insert)

Product Number*	UPC (051138-)	Wire Range (AWG)	L	Maximum Voltage Range	Temperature Rating
S-11-A	98051 boxed	22-16	0.83	600V	221°F (105°C)
	98052 bulk	22-16	0.83	600V	221°F (105°C)
S-31-A	98043 boxed	18-10	1	600V	221°F (105°C)
	98044 bulk	18-10	1	600V	221°F (105°C)

Ordering Information for Nylon Insulated Closed End Connectors (Copper Insert)

Product Number	UPC (051138-)	Unit Pack	Case Qty
S-11-A	98051 boxed	100/box	100
	98052 bulk	1,000/bag	10,000
S-31-A	98043 boxed	50/box	500
	98044 bulk	500/bag	5,000

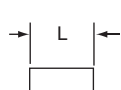


*Product number ending in X = box; product number ending with K = bulk.

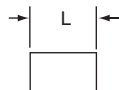
Parallel Connectors

3M™ Parallel Connectors — Non-Insulated Seamless

Product Number*	UPC (054007-)	Wire Range (AWG)	Copper Wire Combinations	L	Thickness	Barrel I.D. In	Barrel I.D. CMA	Terminals per Case
M14PCK	01823	16-14	See chart below	0.31	0.024	0.091	8281	1000
M10PCK	02083	12-10	See chart below	0.34	0.024	0.152	23104	500



M14PC



M10PC

Wire Range

16-14

12-10

RECOMMENDED STRANDED WIRE COMBINATIONS

MVU18PC

1 #22 to 1 #22, 20, 18, 16
 1 #20 to 1 #20, 18, 16
 1 #18 to 1 #18
 Min. CMA: 1280, Max. CMA: 3600

MVU10PC

1 #18 to 1 #18, 16, 14, 12, 10
 1 #16 to 1 #16, 14, 12, 10
 1 #14 to 1 #14, 12
 Min. CMA: 3240, Max. CMA: 12860

M14PC AND MVU14PC

1 #22 to 1 #22, 20, 18, 16, 14
 1 #20 to 1 #20, 18, 16, 14
 1 #18 to 1 #18, 16, 14
 1 #16 to 1 #16
 Min. CMA: 1280, Max. CMA: 5730

M10PC

1 #18 to 1 #18, 16, 14, 12, 10
 1 #16 to 1 #16, 14, 12, 10
 1 #14 to 1 #14, 12, 10
 1 #12 to 1 #12
 Min. CMA: 3240, Max. CMA: 14490

Proper Wire Insertion Parallel Connectors



3M™ Parallel Connectors — Vinyl Insulated Butted Seam

Product Number*	UPC (054007-)	Wire Range (AWG)	Copper Wire Combinations	L	Thickness	Barrel Length	Barrel I.D. In	Barrel I.D. CMA	Maximum Insulation Diameter	Terminals per Carton	Case
MVU18PCK	01318	22-18	see chart above	0.67	0.030	0.31	0.070	4900	0.145	—	1000
MVU14PCX	23144	16-14	see chart above	0.67	0.030	0.31	0.090	8100	0.170	100	500
MVU14PCK	01824	16-14	see chart above	0.67	0.030	0.31	0.090	8100	0.170	—	1000
MVU10PCK	02084	12-10	see chart above	0.87	0.040	0.31	0.135	18225	0.250	—	500



MVU18PC



MVU14PC



MVU10PC

Wire Range

22-18

16-14

12-10

Wire Range

22-18

16-14

12-10

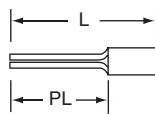
*Product number ending in X = box; product number ending with K = bulk.

Pin Terminals

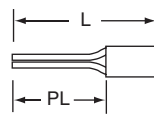
3M™ Pin Terminals — Non-Insulated

Product Number ¹	UPC (051125-)	Wire Range (AWG)	Pin Diameter	L	PL	Terminals per:	
						Carton	Case
MU18-47PX	57440	22-18	0.080	0.73	0.47	100	500
MU18-47PK	57439	22-18	0.080	0.73	0.47	—	1000
MU14-47PX	57442	16-14	0.080	0.73	0.47	100	500
MU14-47PK	57441	16-14	0.080	0.73	0.47	—	1000
MU10-55PX	49420*	12-10	0.110	0.81	0.55	50	500
MU10-55PK	57443	12-10	0.110	0.81	0.55	—	500

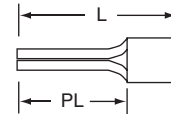
* UPC prefix 054007-



Wire Range
MU18-47P
22-18



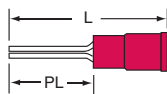
MU14-47P
16-14



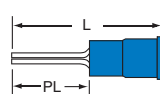
MU10-55P
12-10

3M™ Pin Terminals — Vinyl Insulated Butted Seam

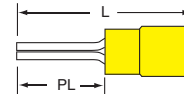
Product Number ¹	UPC (051138-)	Wire Range (AWG)	Pin Diameter	L	PL	Maximum Insulation Diameter	Terminals per:	
							Carton	Case
MVU18-47PX	98112	22-18	0.080	0.92	0.47	0.145	100	500
MVU18-47PK	98111	22-18	0.080	0.92	0.47	0.145	—	1000
MVU14-47PX	98172	16-14	0.080	0.92	0.47	0.170	100	500
MVU14-47PK	98171	16-14	0.080	0.92	0.47	0.170	—	1000
MVU10-55PX	98183	12-10	0.110	1.105	0.55	0.250	50	500
MVU10-55PK	98182	12-10	0.110	1.105	0.55	0.250	—	500



Wire Range
MVU18-47P
22-18



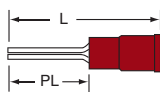
MVU14-47P
16-14



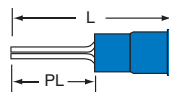
MVU10-55P
12-10

3M™ Pin Terminals — Nylon Insulated with Insulation Grip

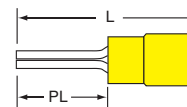
Product Number ¹	UPC (051138-)	Wire Range (AWG)	Pin Diameter	L	PL	Maximum Insulation Diameter	Terminals per:	
							Carton	Case
MNG18-47PX	98179	22-18	0.080	0.93	0.47	0.145	100	500
MNG18-47PK	98106	22-18	0.080	0.93	0.47	0.145	—	1000
MNG14-47PX	98167	16-14	0.080	0.91	0.47	0.170	100	500
MNG14-47PK	98166	16-14	0.080	0.91	0.47	0.170	—	1000
MNG10-55PX	98178	12-10	0.110	1.105	0.55	0.250	50	500
MNG10-55PK	98177	12-10	0.110	1.105	0.55	0.250	—	500



Wire Range
MNG18-47P
22-18



MNG14-47P
16-14



MNG10-55P
12-10

¹Product number ending in X = box; product number ending with K = bulk.

3M™ Highland™ Bagged Terminals

3M Highland terminals, disconnects, and connectors are for use in the assembly and maintenance of electrical systems. 3M Highland terminals offer effective and reliable performance in a variety of types of general applications.

Available in low quantity, reclosable bags 3M Highland terminals are the optimal choice for smaller jobs.



3M™ Highland™ Rings — Non-Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
R10-10L	12-10	10	70320	50	5
R10-14L	12-10	1/4	70321	50	5
R10-14Q	12-10	1/4	70475	25	10
R14-4C	16-14	4	49896	100	5
R14-6C	16-14	6	70235	100	5
R14-6L	16-14	6	70322	50	10
R14-8C	16-14	8	70236	100	5
R14-8L	16-14	8	70323	50	10
R14-10L	16-14	10	70324	50	10
R18-4C	22-18	4	49902	100	5
R18-6C	22-18	6	70238	100	5
R18-6L	22-18	6	70325	50	10
R18-8C	22-18	8	70239	100	5
R18-8L	22-18	8	70326	50	10
R18-10C	22-18	10	70240	100	5

¹Product Number ending in Q=25; L=50; C=100

3M™ Highland™ Rings — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
RV10-6L	12-10	6	49893	50	5
RV10-8L	12-10	8	70328	50	5
RV10-8Q	12-10	8	70476	25	10
RV10-10L	12-10	10	70329	50	5
RV10-10Q	12-10	10	70477	25	10
RV10-14L	12-10	1/4	70330	50	5
RV10-14Q	12-10	1/4	70478	25	10
RV10-38L	12-10	3/8	70331	50	5
RV10-38Q	12-10	3/8	70479	25	10
RV10-516Q	12-10	5/16	49562	25	10
RV14-6C	16-14	6	70241	100	5
RV14-6L	16-14	6	70332	50	10
RV14-8C	16-14	8	70242	100	5
RV14-8L	16-14	8	70333	50	10
RV14-10C	16-14	10	70243	100	5
RV14-10L	16-14	10	70334	50	10
RV14-14C	16-14	1/4	70244	100	5
RV14-14L	16-14	1/4	70335	50	10
RV14-516L	16-14	5/16	49560	50	10
RV18-6C	22-18	6	70245	100	5
RV18-6L	22-18	6	70336	50	10
RV18-8C	22-18	8	70246	100	5
RV18-8L	22-18	8	70337	50	10
RV18-10C	22-18	10	70247	100	5
RV18-10L	22-18	10	70338	50	10

3M™ Highland Standard Forks — Non-Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
F14-6C	16-14	6	70211	100	5
F14-10C	16-14	10	70213	100	5

¹Product Number ending in Q=25; L=50; C=100

3M™ Highland™ Standard Forks — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
FV10-8L	12-10	8	70288	50	5
FV10-8Q	12-10	8	70460	25	10
FV10-10L	12-10	10	70289	50	5
FV10-10Q	12-10	10	70461	25	10
FV14-6L	16-14	6	70290	50	5
FV14-8C	16-14	8	70225	100	10
FV14-8L	16-14	8	70291	50	5
FV14-10C	16-14	10	70226	100	10
FV14-10L	16-14	10	70292	50	5

3M™ Highland Block Forks — Non-Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
BF10-8Q	12-10	8	70448	25	10
BF10-10L	12-10	10	70250	50	5
BF10-10Q	12-10	10	70449	25	10
BF14-6L	16-14	6	70251	100	5
BF14-8C	16-14	8	70198	100	50
BF14-10C	16-14	10	70199	100	5
BF18-6C	22-18	6	70200	100	5
BF18-6L	22-18	6	70254	50	10
BF18-8C	22-18	8	70201	100	5

¹Product Number ending in Q=25; L=50; C=100

3M™ Highland™ Block Forks — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
BFV10-6L	12-10	6	49891	50	5
BFV10-8L	12-10	8	70256	50	5
BFV10-8Q	12-10	8	70450	25	10
BFV10-10L	12-10	10	70257	50	5
BFV10-10Q	12-10	10	70451	25	10
BFV14-6C	16-14	6	70202	100	5
BFV14-6L	16-14	6	70258	50	10
BFV14-8C	16-14	8	70203	100	5
BFV14-8L	16-14	8	70259	50	10
BFV14-10C	16-14	10	70204	100	5
BFV14-10L	16-14	10	70260	50	10
BFV18-6C	22-18	6	70205	100	5
BFV18-6L	22-18	6	70261	50	10
BFV18-8C	22-18	8	70206	100	5
BFV18-8L	22-18	8	70262	50	10
BFV18-10C	22-18	10	49899	100	5

3M™ Highland Locking Forks — Non-Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
LF10-8Q	12-10	8	70463	25	10
LF10-10Q	12-10	10	70464	25	10
LF10-14Q	12-10	14	70465	25	10
LF14-6L	16-14	6	70293	50	10
LF14-8L	16-14	8	70294	50	10
LF18-4L	22-18	4	70296	50	10
LF18-6L	22-18	6	70297	50	10
LF18-8L	22-18	8	70298	50	10

3M™ Highland Locking Forks — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
LFV10-6Q	12-10	6	70466	25	10
LFV10-8Q	12-10	8	70467	25	10
LFV10-10Q	12-10	10	70468	25	10
LFV10-14Q	12-10	14	70469	25	10
LFV14-6L	16-14	6	70299	50	10
LFV14-8L	16-14	8	70300	50	10
LFV14-10L	16-14	10	70301	50	10
LFV18-6L	22-18	6	70303	50	10
LFV18-8L	22-18	8	70304	50	10

¹Product Number ending in Q=25; L=50; C=100

3M™ Highland™ Butt Splices



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
BS10L	12-10	NA	70263	50	5
BS10Q	12-10	NA	70452	25	10
BS14C	16-14	NA	70207	100	5
BS14L	16-14	NA	70264	50	10
BS18C	22-18	NA	70208	100	5

3M™ Highland Butt Splices — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
BSV10L	12-10	NA	70266	50	5
BSV10Q	12-10	NA	70453	25	10
BSV14C	16-14	NA	70209	100	5
BSV14L	16-14	NA	70267	50	10
BSV18C	22-18	NA	70210	100	5
BSV18L	22-18	NA	70268	50	10

3M™ Highland Female Disconnects — Non-Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
FD14-187C	16-14	.187	49894	100	5
FD14-187L	16-14	.187	49895	50	10
FD14-250C	16-14	.250	70214	100	5
FD14-250L	16-14	.250	70275	50	10
FD18-187C	22-18	.187	49900	100	5
FD18-187L	22-18	.187	49901	50	10
FD18-250L	22-18	.250	70276	50	10

¹Product Number ending in Q=25; L=50; C=100

3M™ Highland™ Female Disconnects — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
FDV10-250L	12-10	.250	70282	50	5
FDV10-250Q	12-10	.250	70458	25	10
FDV14-187C	16-14	.187	70220	100	5
FDV14-187L	16-14	.187	70283	50	10
FDV14-250C	16-14	.250	70221	100	5
FDV14-250L	16-14	.250	70284	50	10
FDV18-187C	22-18	.187	70222	100	5
FDV18-187L	22-18	.187	70285	50	10
FDV18-250C	22-18	.250	70223	100	5
FDV18-250L	22-18	.250	70286	50	10

3M™ Highland Female Disconnects — Nylon Fully Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
FDI10-250L	12-10	.250	70277	50	5
FDI10-250Q	12-10	.250	70457	25	10
FDI14-187L	16-14	.187	70278	50	10
FDI14-250C	16-14	.250	70217	100	5
FDI14-250L	16-14	.250	70279	50	10
FDI18-187C	22-18	.187	70218	100	5
FDI18-187L	22-18	.187	70280	50	10
FDI18-250C	22-18	.250	70219	100	5
FDI18-250L	22-18	.250	70281	50	10

3M™ Highland Male Tabs — Non-Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
MT10-250Q	12-10	.250	70470	25	10
MT14-250L	16-14	.250	70306	50	10
MT18-187L	22-18	.187	70307	50	10
MT18-250L	22-18	.250	70308	50	10

¹Product Number ending in Q=25; L=50; C=100

3M™ Highland™ Male Tabs — Nylon Fully Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
MT110-250L	12-10	.250	70309	50	5
MT110-250Q	12-10	.250	70471	25	10
MT114-187C	16-14	.187	70227	100	5
MT114-187L	16-14	.187	70310	50	10
MT114-250C	16-14	.250	70228	100	5
MT114-250L	16-14	.250	70311	50	10
MT118-187C	22-18	.187	70229	100	5
MT118-187L	22-18	.187	70312	50	10
MT118-250L	22-18	.250	70313	50	10

3M™ Highland Male Tabs — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
MTV10-250L	12-10	.250	70314	50	5
MTV10-250Q	12-10	.250	70472	25	10
MTV14-187C	16-14	.187	70231	100	5
MTV14-250C	16-14	.250	70232	100	5
MTV14-250L	16-14	.250	70316	50	10
MTV18-187C	22-18	.187	70233	100	5
MTV18-187L	22-18	.187	70317	50	10
MTV18-250L	22-18	.250	70318	50	10

3M™ Highland Snap Plugs — Vinyl Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
SPV14-156L	16-14	.156	70342	50	10
SPV18-156L	22-18	.156	70343	50	10

3M™ Highland Snap Receptacles — Nylon Fully Insulated



Product Number ¹	Wire Range	Stud or Tab Size	UPC (054007-)	Terminals/Bag	Bags/Case
SRI14-156L	16-14	.156	70340	50	10

¹Product Number ending in Q=25; L=50; C=100

Kits

3M™ Scotchlok™ Terminal Kit STK-1 (Filled)

The Scotchlok Terminal Kit is filled with 3M's most frequently purchased low voltage termination products, including 14 of our most popular terminals.



The STK-1 is constructed of durable metal with individual product compartments. While the compartments keep you organized, the rugged metal frame protects the contents even in the harshest environment. Overall box size is 13-3/4" L x 10" W x 2-1/2" H

Product	UPC (051138-)	Color	Boxes/ Bag	Boxes/ Case
Scotchlok Terminal Box STK-1	25348	Red	N/A	1

Contents of STK-1

Product	Quantity
Scotchlok Crimping Tool TH-440	1
3M™ ScotchCode™ Tape Dispenser STD-0-9	1
3M Cable Ties 06225	100
3M Cable Ties 06226	100
3M Highland™ Ring Tongue Terminal RV18-6	50
3M Highland Ring Tongue Terminal RV18-8	50
3M Highland Ring Tongue Terminal RV14-6	50
3M Highland Ring Tongue Terminal RV14-8	50
3M Highland Ring Tongue Terminal RV14-10	50
3M Highland Ring Tongue Terminal RV10-10	25
3M Highland Block Fork Terminals BFV14-8	50
3M Highland Block Fork Terminals BFV14-10	50
3M Highland Block Fork Terminals BFV18-8	50
3M Highland Block Fork Terminals BFV18-6	50
3M Highland Butt Connectors BSV18	50
3M Highland Butt Connectors BSV14	50
3M Highland Butt Connectors BSV10	25
3M Highland Female Disconnects FDV14-250	50

3M™ Scotchlok™ Steel Terminal Box (Empty)

This metal case with plastic insert tray is divided into 14 terminal compartments, one tool compartment and two miscellaneous compartments. Order contents separately. Overall box size is 13-3/4" L x 10" W x 2-1/2" H



Product	UPC (054007-)	Color	Boxes/ Bag	Boxes/ Case
Scotchlok Steel Terminal Box	11900	Red	1	6
Note: Box only				

3M™ Scotchlok™ Plastic Terminal Box (Empty)

This is a plastic organizing box for terminals. It is divided into 13 compartments, including one size to hold a crimping tool. Order contents separately. Overall box size is 11" L x 7" W x 1-3/4" H.



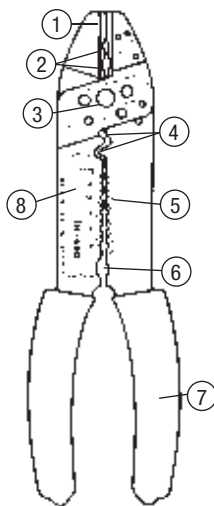
Product	UPC (054007-)	Color	Boxes/ Bag	Boxes/ Case
Scotchlok Plastic Terminal Box	02351	Clear	1	24
Note: Box only				

Tools

3M™ Scissors, Style TH-440

A compact, high-quality tool designed to perform the six most common electrical wiring functions.

- Made of 1.125" (28,57 mm) heat-treated carbon steel
- Handles a variety of terminal and connector styles, insulated and non-insulated
- Range of 22–10 AWG
- 3M Terminals and Connectors are UL Listed and CSA Certified when used with the TH-440



Features:

1. Anvil-type wire cutter for clean cuts.
2. Crimp dies for 22–10 AWG insulated terminals, connectors and closed-end connectors.
3. Cut-off dies for mild steel and non-ferrous screws.
4. Crimp dies for 22–10 AWG non-insulated terminals and connectors.
5. Wire stripping stations for circumferential cut-less effort.
6. Crimp die for 7 and 8 mm ignition parts.
7. Cushioned, vinyl grips, red.

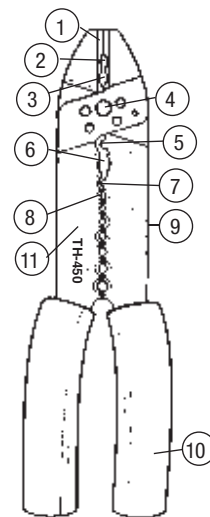
For specific tooling applications, refer to the smallest units container or the Tool Selection Guides in the Appendix.

Product Number (add package code when ordering)	UPC (054007-)	Color	Boxes/ Bag	Boxes/ Case
TH-440	60825	22-10	1	10

3M™ Scissors, Style TH-450

The most versatile heavy-duty tool we've ever offered.

- Made of 1.40" (35,5 mm) high-strength, heat-treated carbon steel
- Tool is lightweight without sacrificing strength
- Handles a variety of terminal and conductor styles, including flags, closed-end connectors, crimp sleeves and standard parts, insulated and non-insulated
- Range of 26–6 AWG
- 3M Terminals and Connectors are UL Listed and CSA Certified when crimped with the TH-450



Features:

1. Anvil-type wire cutter.
- 2–3. Crimp dies for 26–10 AWG insulated terminals and closed-end connectors.
4. Cut-off dies for mild steel and non-ferrous screws.
5. Crimp dies for 12–6 AWG non-insulated terminals, connectors, flags, disconnects, crimp sleeves and high-temperature terminals.
6. Crimp dies for 6–8 AWG insulated terminals and butt connectors.
7. Crimp die for 26–14 AWG non-insulated terminals, connectors, flags, disconnects and crimp sleeves.
8. Wire-stripping stations for circumferential cut-less effort.
9. Strip length guide.
10. Textured, cushioned grips, red.

For specific tooling applications, refer to the smallest unit container or the Tool Selection Guides in the Appendix.

Product Number (add package code when ordering)	UPC (054007-)	Color	Boxes/ Bag	Boxes/ Case
TH-450	13760	26-6	1	10

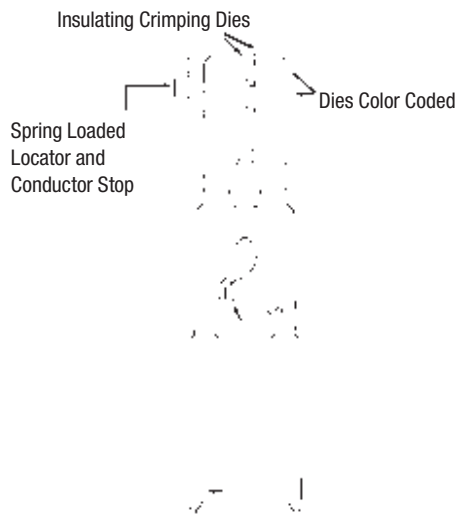
*Product number ending in X = box; product number ending with K = bulk.

3M™ Ratchet TR-482

Tool Capability:

Crimps barrel and insulation grip simultaneously on No. 22–10 AWG (0,35–6,0 mm²) insulated terminals and connectors. Will crimp nylon or vinyl insulated, butted or brazed seam terminals and connectors.

Crimping Dies:



No. 22–14 AWG (0,35–2,5 mm²) red and blue color coded

No. 12–10 AWG (4,0–6,0 mm²) yellow color coded

Field Re-calibration:

Calibration of ratchet can be accomplished in the field. See calibration and maintenance instructions packaged with the tool.

Terminal Locator:

Spring loaded locator orients, positions and holds terminals and connectors.

Conductor Stop:

Provides proper insertion of conductor in the terminal barrel.

Positive Closure:

Ratchet requires full closure of handles to ensure proper crimp.

Materials and Finish:

Hardened steel jaws and handles with corrosion resistant finish.

Weight:

1.1 lbs.

Grip:

Plastic, red color

Specifications:

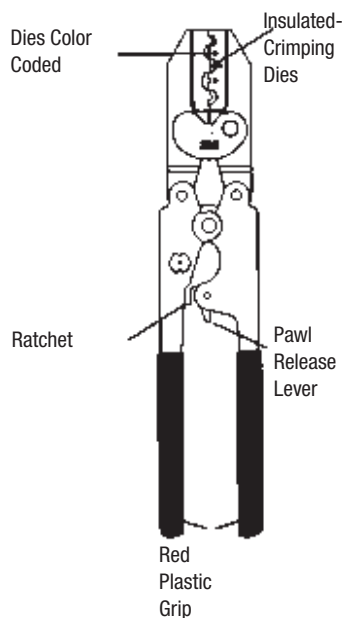
Insulated terminals from 22–10 AWG should be crimped with a positive action ratchet tool and be UL Listed with that tool. The dies are of a smooth, contour shape and crimp the conductor barrel and insulation grip simultaneously. The tool has a locator that will orient the terminal, position the terminal for crimping, hold the terminals in place, and act as a wire stop. The tool is compound lever type with a ratchet mechanism to ensure positive closure for full crimping cycle. The tool is capable of field adjustment to proper calibration with common tools and materials specified in the maintenance and calibration section of the instruction booklet provided with the tool. The manufacturer provides a guide for maintenance procedure and instructions to field inspect for specified die gaps. Jaws should be hardened steel and coated with a corrosion resistant finish. Tool should be a Scotchlok™ TR-482.

3M™ Terminals and Connectors are UL Listed and CSA Certified with the TR-482. For specific tooling information, see Tool Selection Guide in the Appendix

Product	UPC (054007-)	Wire Range	Tools/ Carton	Tools/ Case
TR-482	11902	22-10	1	10

3M™ Ratchet TR-490

Tool Capability:



Tool Capability:

Crimps barrel and insulation grip independently on No. 22–10 AWG (0,35–6,0 mm²) insulated and non-insulated terminals and connectors—nylon or vinyl insulated, butted or brazed seam.

Crimping Dies:

Insulated No. 22–18 AWG (0,35–0,97 mm²) red color coded

Insulated No. 16–14 AWG (1,3–25 mm²) blue color coded

Insulated No. 12–10 AWG (4,0–6,0 mm²) yellow color coded

Non-Insulated No. 22–14 AWG (0,35–2,5 mm²)

Non-Insulated No. 12–10 (4,0–6,0 mm²)

Field Re-calibration:

Calibration adjustment of ratchet can be accomplished in the field. See calibration and maintenance instructions packaged with the tool.

Positive Closure:

Ratchet requires full closure of handles to ensure proper crimp. Ratchet release lever allows removal of misplaced terminals.

Materials and Finish:

Hardened steel jaws and handles with corrosion resistant finish.

Weight:

0.8 lbs.

Grip:

Plastic, red color



























Specifications:

Non-insulated and insulated terminals and connectors from 22–10 AWG should be crimped with a positive action (ratchet) tool and be UL Listed with that tool. Non-insulated die is of an indent shape and insulated die is a flat, smooth shape capable of crimping pre-insulated vinyl and nylon terminals and connectors. Dies are marked with the appropriate wire range and insulated dies are color coded: red for 22–18 AWG, blue for 16–14 AWG, and yellow for 12–10 AWG. The tool is compound lever type with a ratchet mechanism to ensure positive closure for full crimping cycle. Tool is capable of field adjustment to proper calibration with common tools and materials specified in the maintenance and calibration section of the instruction booklet provided with the tool. The manufacturer provides a guide for maintenance procedure and instructions to field inspect for specified die gaps. Jaws should be hardened steel and coated with a corrosion resistant finish. Tool should be a 3M Scotchlok TR-490.

3M™ Terminals and Connectors are UL Listed and CSA Certified with the TR-490. For specific tooling information, see Tool Selection Guide in the the Appendix

Product	UPC (054007-)	Wire Range	Tools/ Carton	Tools/ Case
TR-490	70481	22-10	1	10

3M™ Terminal Stud Size Chart

	Stud Size				3M Terminal Hole Diameter
	US/Inches	Diameter		OUS/Metric	
#2		0.086" (2,144 mm)	M2		2,0 mm (0.080")
#4		0.112" (2,844 mm)	M2,5		2,5 mm (0.100")
#5		0.125" (3,175 mm)	M3		3,0 mm (0.120")
#6		0.138" (3,505 mm)	M3,5		3,5 mm (0.140")
#8		0.164" (4,166 mm)	M4		4,0 mm (0.176")
#10		0.190" (4,826 mm)	M5		5,0 mm (0.20")
1/4		0.250" (6,350 mm)	M6		6,0 mm (0.24")
5/16		0.3125" (7,938 mm)	M8		8,0 mm (0.32")
3/8		0.375" (9,525 mm)	M10		10,0 mm (0.40")
7/16		0.4375" (11,113 mm)	M10		10,0 mm (0.48")
1/2		0.500" (12,700 mm)	M12		12,0 mm (0.48")
5/8		0.625" (15,875 mm)	M16		16,0 mm (0.64")
3/4		0.750" (19,050 mm)	M18		18,0 mm (0.72")

Ref. ISO 263-1973 for inch stud sizes and ISO 262-1973 for metric stud sizes

American Wire Gauge

Size	Inches	Millimeters	Size	Inches	Millimeters	Size	Inches	Millimeters
4/0	0.4600	11,684	4	0.2043	5,189	16	0.0508	1,290
3/0	0.4096	10,040	6	0.1620	4,115	18	0.0403	1,024
2/0	0.3648	9,266	8	0.1285	3,264	20	0.0320	0,813
1/0	0.3249	8,253	10	0.1019	2,588	22	0.0253	0,643
1	0.2893	7,347	12	0.0808	2,052	24	0.0201	0,511
2	0.2576	6,543	14	0.0641	1,628	26	0.0159	0,404

Lugs and Connectors

Copper Connectors	149
Copper/Aluminum Connectors	151
Copper Lugs	152
Copper/Aluminum Lugs	155
Oil Seal Lugs	157
SC Series Stem Connectors	157
CP Parallel Clamp	158
CI Series Connectors	159
CI-A Series Connectors	160
CI-T Series Connectors	160
CIR Series Connectors	161
2000T Series Connectors	162



3M™ Scotchlok™ Lugs and Connectors are crimp connectors for power cable conductors. These connectors are used when splicing and terminating power cable.

3M™ Scotchlok™ Connectors 10000 and 11000 Series and Lugs 30000 and 31000 Series

The 3M Scotchlok Connectors 10000 and 11000 Series, and the Lugs 30000 and 31000 Series are used on copper conductors only. They are available in standard or long barrel designs and are constructed of one-piece, seamless high-conductivity copper. (UL 486A Listed)

3M™ Scotchlok™ Connectors 20000 Series and Lugs 40000 Series

The 3M Scotchlok Connectors 20000 Series and Lugs 40000 Series are for use with either copper or aluminum conductors. These aluminum connectors and lugs feature color coded end caps for identification. Contact aid provided in connector and lug barrels is compatible with poly/EPR insulations. (UL 486B Listed)

3M SCOTCHLOK LUGS AND CONNECTORS

FEATURES	ADVANTAGES	BENEFITS
Simple installation using readily available tools	Standard crimping tools	UL Listed for use with a variety of manufacturers' tools
Entrance chambers	Guide cable into crimp area	Facilitate cable insertion

3M™ Connectors CI Series

3M Connectors CI Series are for splicing applications on aluminum or copper cable conductors. The CI Series aluminum connectors are specially designed for use with 3M QS-I, QS-II and QS-III pre-molded power cable splice bodies. These connectors meet the requirements of ANSI C119.4.

3M™ Aerial Stem Connectors SC Series

3M Aerial Stem Connectors SC Series feature an aluminum barrel for installations on either copper or aluminum cable conductors and are used when connecting a riser cable to an overhead line. The SC series connectors are also used when terminating an insulated power cable with 3M terminations. SC series connectors are provided with a factory crimped and sealed copper stem for aerial line connection.

3M™ Lugs OS Series

3M Lugs OS Series are copper lugs that feature a solid oil stop. These lugs are for copper conductors only and are used with 3M 5800-Pb series terminations on paper-insulated lead covered (PILC) cables.

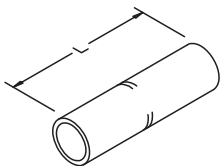
3M™ Connectors CIR Series

3M Connectors CIR Series are specially designed for use with 3M QS-II Repair Splice Kits. They are aluminum connectors for use on aluminum or copper cable conductors. When used with the appropriate splice kit, these connectors allow up to 6 inches (152 mm) of damaged cable conductor to be removed, eliminating the need to splice in a new section of cable. CIR series connectors meet the requirements of ANSI C119.4.

3M™ Scotchlok Connectors 2000T Series

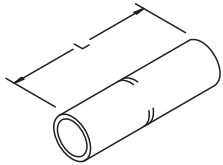
The 2000T Series offers three solutions for your copper and/or aluminum connecting needs for PILC power cable. The 3M Scotchlok Connectors 2000T-CU Series are copper inline sleeves that are for use with copper conductor cables of the same size when connecting copper cable to copper cable only. When you need a product that connects copper and aluminum cables use the 3M Scotchlok Connectors 2000T-CU/AL Series. These connectors feature aluminum inline sleeves that can be used with aluminum or copper conductor cables of the same size. For connecting cables of different sizes and types, the Scotchlok 2000T Reducer Series answers the call. They are aluminum inline sleeves that are applicable for both aluminum and copper conductors, and because the barrel diameters at the connector ends are different, it allows connecting conductors of different sizes. All connectors in the 2000T series feature a solid center oil stop.

Copper Connectors



Specifications and Ordering Information for 3M™ Scotchlok™ Copper Connectors 10000 Series Standard-Barrel up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Dimensions			Minimum Order Case Qty.
				I.D.	O.D.	L	
10001	12717	Blue	6 AWG	0.196" (5,0 mm)	0.290" (7,3 mm)	1.750" (44,4 mm)	50 each
10002	12725	Gray	4 AWG	0.247" (6,2 mm)	0.340" (8,6 mm)	1.750" (44,4 mm)	50 each
10003	12733	Brown	2 AWG	0.307" (7,8 mm)	0.416" (10,6 mm)	1.880" (47,6 mm)	25 each
10004	12758	Green	1 AWG	0.358" (9,1 mm)	0.462" (11,7 mm)	1.880" (47,6 mm)	10 each
10005	12766	Pink	1/0 AWG	0.394" (10,0 mm)	0.512" (13,0 mm)	1.880" (47,6 mm)	10 each
10006	12774	Black	2/0 AWG	0.439" (11,2 mm)	0.560" (14,2 mm)	2.000" (50,8 mm)	10 each
10007	12790	Orange	3/0 AWG	0.490" (12,4 mm)	0.617" (15,7 mm)	2.130" (54,0 mm)	10 each
10008	12816	Purple	4/0 AWG	0.548" (13,9 mm)	0.687" (17,4 mm)	2.130" (54,0 mm)	10 each
10009	12832	Yellow	250 kcmil	0.595" (15,1 mm)	0.750" (19,1 mm)	2.250" (57,2 mm)	3 each
10010	12857	White	300 kcmil	0.650" (16,5 mm)	0.813" (20,7 mm)	2.250" (57,2 mm)	3 each
10011	12873	Red	350 kcmil	0.700" (17,8 mm)	0.875" (22,2 mm)	2.380" (60,4 mm)	3 each
10014	12899	Brown	500 kcmil	0.836" (21,2 mm)	1.060" (27,0 mm)	2.880" (73,0 mm)	3 each
10019	12915	—	750 kcmil	1.031" (26,2 mm)	1.299" (33,0 mm)	3.380" (85,8 mm)	3 each
10024	12931	—	1000 kcmil	1.173" (29,8 mm)	1.500" (38,1 mm)	3.880" (98,4 mm)	3 each



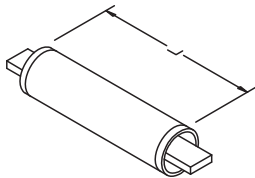
Specifications and Ordering Information for 3M™ Scotchlok™ Copper Connectors 11000 Series Long-Barrel up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Dimensions			Minimum Order Case Qty.
				I.D.	O.D.	L	
11006	12782	Black	2/0 AWG	0.439" (11,2 mm)	0.560" (14,2 mm)	3.130" (79,4 mm)	10 each
11007	12808	Orange	3/0 AWG	0.490" (12,4 mm)	0.617" (15,7 mm)	3.130" (79,4 mm)	10 each
11008	12824	Purple	4/0 AWG	0.548" (13,9 mm)	0.687" (17,4 mm)	3.380" (85,8 mm)	10 each
11009	12840	Yellow	250 kcmil	0.595" (15,1 mm)	0.750" (19,1 mm)	3.380" (85,8 mm)	3 each
11010	12865	White	300 kcmil	0.650" (16,5 mm)	0.813" (20,7 mm)	4.130" (104,8 mm)	3 each
11011	12881	Red	350 kcmil	0.700" (17,8 mm)	0.875" (22,2 mm)	4.130" (104,8 mm)	3 each
11014	12907	Brown	500 kcmil	0.836" (21,2 mm)	1.060" (27,0 mm)	4.630" (117,5 mm)	3 each
11019	12923	—	750 kcmil	1.031" (26,2 mm)	1.299" (33,0 mm)	5.880" (149,2 mm)	3 each
11024	12949	—	1000 kcmil	1.173" (29,8 mm)	1.500" (38,1 mm)	6.130" (155,6 mm)	3 each

Put the
power in
power
cable



Copper/Aluminum Connectors



PRODUCT REFERRAL GENERATOR

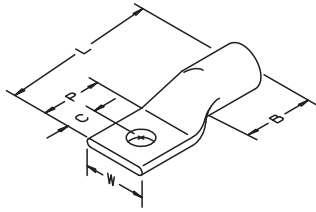
Cold Shrink Splicingpg. 311
 – QS-III Splices
 – 5750 and 5760 Series
 – 8420 Series
 Tape Splicingpg. 353
 – 5700 Series
 Resin Splicingpg. 330
 – 82-A Series
 – 82-F Series



Specifications and Ordering Information for 3M™ Scotchlok™ Copper/Aluminum Connectors 20000 Series (AL9CU) up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Dimensions			Minimum Order Case Qty.
				I.D.	O.D.	L	
20001	13236	Gray	6 AWG	0.200" (5,1 mm)	0.344" (8,8 mm)	1.620" (41,1 mm)	50 each
20002	13244	Green	4 AWG	0.265" (6,7 mm)	0.468" (11,8 mm)	1.880" (47,8 mm)	50 each
20003	13251	Pink	2 AWG	0.307" (7,8 mm)	0.531" (13,5 mm)	2.000" (50,8 mm)	25 each
20004	13269	Gold	1 AWG	0.350" (8,9 mm)	0.531" (13,5 mm)	2.000" (50,8 mm)	10 each
20005	13277	Tan	1/0 AWG	0.414" (10,5 mm)	0.640" (16,3 mm)	2.120" (53,8 mm)	10 each
20006	13285	Olive	2/0 AWG	0.439" (11,2 mm)	0.687" (17,4 mm)	2.310" (58,7 mm)	10 each
20007	13293	Ruby	3/0 AWG	0.484" (12,3 mm)	0.760" (19,3 mm)	2.620" (66,5 mm)	10 each
20008	13301	White	4/0 AWG	0.562" (14,3 mm)	0.875" (22,2 mm)	2.750" (69,9 mm)	10 each
20009	13319	Red	250 kcmil	0.594" (15,1 mm)	0.906" (23,0 mm)	2.940" (74,7 mm)	3 each
20010	13327	Dark Blue	300 kcmil (150 mm ²)	0.650" (16,5 mm)	1.010" (25,6 mm)	3.120" (79,2 mm)	3 each
20011	13335	Brown	350 kcmil	0.720" (18,3 mm)	1.105" (28,1 mm)	3.380" (85,9 mm)	3 each
20012	13343	Green	400 kcmil	0.760" (19,3 mm)	1.187" (30,1 mm)	3.750" (95,3 mm)	3 each
20014	13350	Pink	500 kcmil	0.843" (21,4 mm)	1.320" (33,5 mm)	3.880" (98,6 mm)	3 each
20016	13368	Black	600 kcmil	0.923" (23,4 mm)	1.430" (36,3 mm)	4.120" (104,6 mm)	3 each
20019	13376	Yellow	750 kcmil	1.031" (26,2 mm)	1.594" (40,5 mm)	4.620" (117,3 mm)	3 each
20020	13384	Light Blue	800 kcmil	1.051" (26,7 mm)	1.655" (42,0 mm)	4.750" (120,7 mm)	3 each
20024	13392	Brown	1000 kcmil (500 mm ²)	1.193" (30,3 mm)	1.843" (46,8 mm)	5.250" (133,4 mm)	3 each

Copper Lugs



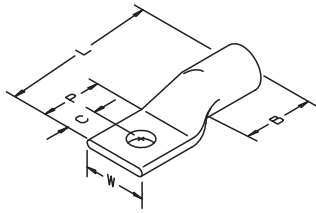
PRODUCT REFERRAL GENERATOR

Terminatingpg. 272
 – QT-III 7600 Series
 Motor Leadpg. 377
 – 5300 Series



Specifications and Ordering Information for 3M™ Scotchlok™ Copper Lugs 30000 Series-One Hole up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Stud Size	I.D.	Dimensions					Minimum Order Case Qty.
						L	B	W	P	C	
30014	12410	Blue	6 AWG	#10 (5 mm)	0.196" (5,0 mm)	1.780" (45,2 mm)	0.750" (19,1 mm)	0.500" (12,7 mm)	0.750" (19,1 mm)	0.375" (9,5 mm)	50 each
30015	12428	Blue	6 AWG	1/4" (6 mm)	0.196" (5,0 mm)	1.780" (45,2 mm)	0.750" (19,1 mm)	0.500" (12,7 mm)	0.750" (19,1 mm)	0.375" (9,5 mm)	50 each
30016	12436	Blue	6 AWG	5/16" (8 mm)	0.196" (5,0 mm)	1.780" (45,2 mm)	0.750" (19,1 mm)	0.435" (11,0 mm)	0.750" (19,1 mm)	0.375" (9,5 mm)	50 each
30018	12444	Gray	4 AWG	#10 (5 mm)	0.247" (6,3 mm)	1.940" (49,3 mm)	0.750" (19,1 mm)	0.485" (12,3 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	50 each
30019	12451	Gray	4 AWG	1/4" (6 mm)	0.247" (6,3 mm)	1.940" (49,3 mm)	0.750" (19,1 mm)	0.485" (12,3 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	50 each
30021	12469	Gray	4 AWG	3/8" (10 mm)	0.247" (6,3 mm)	1.940" (49,3 mm)	0.750" (19,1 mm)	0.590" (15,1 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	50 each
30022	12477	Brown	2 AWG	1/4" (6 mm)	0.307" (7,8 mm)	1.970" (50,0 mm)	0.810" (20,7 mm)	0.630" (15,9 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	25 each
30023	12485	Brown	2 AWG	5/16" (8 mm)	0.307" (7,8 mm)	1.970" (50,0 mm)	0.810" (20,7 mm)	0.630" (15,9 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	25 each
30024	12493	Brown	2 AWG	3/8" (10 mm)	0.307" (7,8 mm)	1.970" (50,0 mm)	0.810" (20,7 mm)	0.630" (15,9 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	25 each
30027	12501	Green	1 AWG	5/16" (8 mm)	0.358" (9,1 mm)	1.970" (50,0 mm)	0.810" (20,7 mm)	0.690" (17,4 mm)	0.750" (19,1 mm)	0.375" (9,5 mm)	10 each
30028	12519	Green	1 AWG	3/8" (10 mm)	0.358" (9,1 mm)	1.970" (50,0 mm)	0.810" (20,7 mm)	0.690" (17,4 mm)	0.750" (19,1 mm)	0.375" (9,5 mm)	10 each
30031	12527	Pink	1/0 AWG	5/16" (8 mm)	0.394" (10,0 mm)	2.160" (54,8 mm)	0.810" (20,7 mm)	0.750" (19,0 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	10 each
30032	12535	Pink	1/0 AWG	3/8" (10 mm)	0.394" (10,0 mm)	2.160" (54,8 mm)	0.810" (20,7 mm)	0.750" (19,0 mm)	0.890" (22,6 mm)	0.375" (9,5 mm)	10 each
30036	12543	Black	2/0 AWG	3/8" (10 mm)	0.439" (11,2 mm)	2.370" (60,2 mm)	0.870" (22,2 mm)	0.810" (20,7 mm)	1.110" (28,2 mm)	0.375" (9,5 mm)	10 each
30041	12568	Orange	3/0 AWG	1/2" (12 mm)	0.490" (12,4 mm)	2.630" (66,8 mm)	0.940" (23,8 mm)	0.910" (23,0 mm)	1.110" (28,2 mm)	0.531" (13,5 mm)	10 each
30045	12584	Purple	4/0 AWG	1/2" (12 mm)	0.548" (13,9 mm)	2.600" (65,9 mm)	0.970" (24,6 mm)	1.000" (25,4 mm)	1.110" (28,2 mm)	0.531" (13,5 mm)	10 each

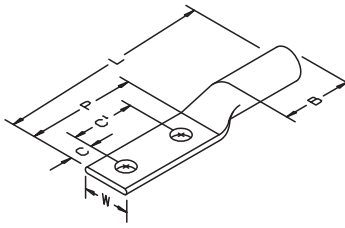


Specifications and Ordering Information for 3M™ Scotchlok™ Copper Lugs 31000 Series-One Hole, Long-Barrel up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Stud Size	I.D.	L	Dimensions				Minimum Order Case Qty.
							B	W	P	C	
31036	12550	Black	2/0 AWG	3/8" (10 mm)	0.439" (10 mm)	2.840" (11,2 mm)	1.440" (36,6 mm)	0.812" (36,5 mm)	0.890" (20,6 mm)	0.375" (22,6 mm)	10 each
31041	12576	Orange	3/0 AWG	1/2" (12 mm)	0.490" (12,4 mm)	3.130" (79,5 mm)	1.440" (36,6 mm)	0.910" (23,0 mm)	1.110" (28,2 mm)	0.531" (13,5 mm)	10 each
31045	12592	Purple	4/0 AWG	1/2" (12 mm)	0.548" (13,9 mm)	3.320" (84,4mm)	1.560" (39,7 mm)	1.000" (25,4 mm)	1.110" (28,2 mm)	0.531" (13,5 mm)	10 each
31049	12618	Yellow	250 kcmil	1/2" (12 mm)	0.590" (15,1 mm)	3.380" (85,8 mm)	1.500" (38,0 mm)	1.130" (28,6 mm)	1.110" (28,2 mm)	0.531" (13,5 mm)	10 each
31053	12634	White	300 kcmil (150 mm ²)	1/2" (12 mm)	0.650" (16,5 mm)	3.780" (96,0 mm)	1.940" (49,2 mm)	1.220" (30,9 mm)	1.110" (28,2 mm)	0.531" (13,5 mm)	10 each
31056	12659	Red	350 kcmil	1/2" (12 mm)	0.700" (17,8 mm)	3.840" (97,5 mm)	1.940" (49,2 mm)	1.270" (32,3 mm)	1.110" (28,2 mm)	0.531" (13,5 mm)	10 each
31060	11978	Blue	400 kcmil	1/2" (12 mm)	0.762" (19,3 mm)	4.160" (105,7 mm)	2.000" (50,8 mm)	1.410" (35,8 mm)	1.340" (34,2 mm)	0.650" (16,66 mm)	10 each
31066	12675	Brown	500 kcmil	1/2" (12 mm)	0.836" (21,2 mm)	4.500" (114,3 mm)	2.190" (55,6 mm)	1.530" (38,9 mm)	1.340" (34,2 mm)	0.660" (16,8 mm)	10 each
31067	12683	Brown	500 kcmil	5/8" (16 mm)	0.836" (21,2 mm)	4.500" (114,3 mm)	2.190" (55,6 mm)	1.530" (38,9 mm)	1.340" (34,2 mm)	0.660" (16,8 mm)	10 each
31068	11980	Green	600 kcmil	1/2" (12 mm)	0.920" (23,4 mm)	5.120" (130,0 mm)	2.690" (68,2 mm)	1.690" (42,9 mm)	1.750" (44,4 mm)	0.870" (22,2 mm)	6 each

A secure and easy connection

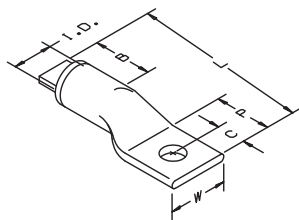




Specifications and Ordering Information for 3M™ Scotchlok™ Copper Lugs 31000 Series—Two Hole, Long-Barrel up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Stud Size	Dimensions							Minimum Order Case Qty.
					I.D.	L	B	W	P	C	C1	
31122	52496	Gray	4 AWG	1/2" (12 mm)	.25" (6,27 mm)	4.19" (106,50 mm)	.93" (23,5 mm)	.66" (16,70 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	25 each
31125	52497	Brown	2 AWG	1/2" (12 mm)	.31" (7,8 mm)	4.85" (123,2 mm)	1.25" (31,8 mm)	.63" (16,0 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	25 each
31129	52498	Green	1 AWG	1/2" (12 mm)	.36" (9,1 mm)	4.85" (123,2 mm)	1.25" (31,8 mm)	.69" (17,5 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31130	52499	Pink	1/0 AWG	1/2" (12 mm)	.39" (9,9 mm)	4.98" (126,5 mm)	1.38" (31,5 mm)	.75" (19,0 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31137	69245	Black	2/0 AWG	1/2" (12 mm)	.44" (11,2 mm)	5.03" (127,8 mm)	1.50" (38,1 mm)	.81" (20,7 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31141	69246	Orange	3/0 AWG	1/2" (12 mm)	.49" (12,4 mm)	5.13" (130,3 mm)	1.44" (36,5 mm)	.91" (23,0 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31145	12600	Purple	4/0 AWG	1/2" (12 mm)	0.548" (13,9 mm)	5.160" (131,0 mm)	1.560" (39,6 mm)	1.000" (39,7 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31149	12626	Yellow	250 kcmil	1/2" (12 mm)	0.595" (15,1 mm)	5.310" (134,9 mm)	1.560" (39,6 mm)	1.130" (28,6 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31153	12642	White	300 kcmil (150 mm ²)	1/2" (12 mm)	0.650" (16,5 mm)	5.750" (146,0 mm)	1.940" (49,2 mm)	1.220" (31,0 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31156	12667	Red	350 kcmil	1/2" (12 mm)	0.700" (17,8 mm)	5.750" (146,0 mm)	1.940" (49,2 mm)	1.310" (33,4 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31160	11979	Blue	400 kcmil	1/2" (12 mm)	0.762" (19,35 mm)	6.000" (152,4 mm)	2.120" (53,8 mm)	1.410" (35,8 mm)	3.090" (78,5 mm)	.62" (16,0 mm)	1.75" (44,5 mm)	10 each
31166	12691	Brown	500 kcmil	1/2" (12 mm)	0.836" (21,2 mm)	6.160" (156,4 mm)	2.190" (55,6 mm)	1.530" (38,9 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	10 each
31168	11981	Green	600 kcmil	1/2" (12 mm)	0.923" (23,44 mm)	6.720" (170,6 mm)	2.620" (66,5 mm)	1.690" (42,9 mm)	3.120" (79,2 mm)	.62" (16,0 mm)	1.75" (44,5 mm)	6 each
31172	12709	Black	750 kcmil	1/2" (12 mm)	1.031" (26,2 mm)	7.000" (177,8 mm)	2.810" (71,5 mm)	1.720" (43,7 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	6 each
31178	00907	—	1000 kcmil (500 mm ²)	1/2" (12 mm)	1.173" (29,3 mm)	7.280" (184,9 mm)	2.940" (74,6 mm)	1.720" (43,7 mm)	3.0" (76,2 mm)	.63" (16,0 mm)	1.75" (44,5 mm)	6 each

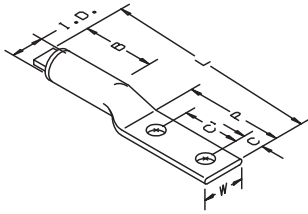
Copper/Aluminum Lugs



Specifications and Ordering Information for 3M™ Scotchlok™ Copper/Aluminum Lugs 40000 Series-One Hole (AL9CU) up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Stud Size	Dimensions						Minimum Order Case Qty.
					I.D.	L	B	W	P	C	
40016	13400	Gray	6 AWG	5/16" (8 mm)	0.200" (5,1 mm)	2.300" (58,4 mm)	1.000" (25,4 mm)	0.550" (14,0 mm)	0.880" (22,3 mm)	0.440" (11,2 mm)	50 each
40020	13418	Green	4 AWG	5/16" (8 mm)	0.265" (6,7 mm)	2.300" (58,4mm)	1.000" (25,4 mm)	0.690" (17,5 mm)	1.000" (25,4 mm)	0.440" (11,2 mm)	50 each
40024	13426	Pink	2 AWG	3/8" (10 mm)	0.307" (7,8 mm)	2.500" (63,5 mm)	1.000" (25,4 mm)	0.810" (20,6 mm)	1.120" (28,4 mm)	0.440" (11,2 mm)	25 each
40025	13434	Pink	2 AWG	1/2" (12 mm)	0.307" (7,8 mm)	2.500" (63,5 mm)	1.000" (25,4 mm)	0.810" (20,6 mm)	1.120" (28,4 mm)	0.440" (11,2 mm)	25 each
40028	13442	Gold	1 AWG	3/8" (10 mm)	0.350" (8,9 mm)	2.560" (65,0 mm)	0.940" (23,9 mm)	0.750" (19,1 mm)	1.120" (28,4 mm)	0.440" (11,2 mm)	10 each
40029	13459	Gold	1 AWG	1/2" (12 mm)	0.350" (8,9 mm)	2.560" (65,0 mm)	0.940" (23,9 mm)	0.750" (19,1 mm)	1.120" (28,4 mm)	0.440" (11,2 mm)	10 each
40032	13467	Tan	1/0 AWG	3/8" (10 mm)	0.414" (10,5 mm)	3.190" (81,0 mm)	1.250" (31,8 mm)	0.880" (22,4 mm)	1.250" (31,8 mm)	0.620" (15,7 mm)	10 each
40033	13475	Tan	1/0 AWG	1/2" (12 mm)	0.414" (10,5 mm)	3.190" (81,0 mm)	1.250" (31,8 mm)	0.880" (22,4 mm)	1.250" (31,8 mm)	0.620" (15,7 mm)	10 each
40037	13483	Olive	2/0 AWG	1/2" (12 mm)	0.439" (11,2 mm)	3.190" (81,0 mm)	1.380" (35,1 mm)	0.940" (23,9 mm)	1.250" (31,8 mm)	0.620" (15,7 mm)	10 each
40041	13491	Ruby	3/0 AWG	1/2" (12 mm)	0.484" (12,3 mm)	3.440" (87,4 mm)	1.500" (38,1 mm)	1.060" (26,9 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40045	13509	White	4/0 AWG	1/2" (12 mm)	0.562" (14,3 mm)	3.560" (90,4 mm)	1.500" (38,1 mm)	1.190" (30,2 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40046	13517	White	4/0 AWG	5/8" (16 mm)	0.562" (14,3 mm)	3.560" (90,4 mm)	1.500" (38,1 mm)	1.190" (30,2 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40049	13525	Red	250 kcmil	1/2" (12 mm)	0.594" (15,1 mm)	3.620" (91,9 mm)	1.620" (41,1 mm)	1.250" (31,8 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40050	13533	Red	250 kcmil	5/8" (16 mm)	0.594" (15,1 mm)	3.620" (91,9 mm)	1.620" (41,1 mm)	1.250" (31,8 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40053	13541	Dark Blue	300 kcmil (150 mm ²)	1/2" (12 mm)	0.650" (16,5 mm)	4.000" (101,6 mm)	2.250" (57,2 mm)	1.380" (35,0 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40056	13558	Brown	350 kcmil	1/2" (12 mm)	0.720" (18,3 mm)	4.250" (108,0 mm)	2.250" (57,2 mm)	1.500" (38,1 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40057	13566	Brown	350 kcmil	5/8" (16 mm)	0.720" (18,3 mm)	4.250" (108,0 mm)	2.250" (57,2 mm)	1.500" (38,1 mm)	1.310" (33,5 mm)	0.620" (15,7 mm)	10 each
40067	13574	Pink	500 kcmil	5/8" (16 mm)	0.843" (21,4 mm)	5.440" (138,2 mm)	3.000" (76,2 mm)	1.750" (44,5 mm)	1.500" (38,1 mm)	0.620" (15,7 mm)	10 each
40073	13582	Yellow	750 kcmil	5/8" (16 mm)	1.031" (26,2 mm)	6.500" (165,1 mm)	3.380" (85,9 mm)	1.750" (44,5 mm)	1.870" (47,5 mm)	0.875" (22,2 mm)	6 each
40079	13590	Brown	1000 kcmil (500 mm ²)	5/8" (16 mm)	1.193" (30,3 mm)	7.870" (200,0 mm)	4.620" (117,3 mm)	2.560" (65,0 mm)	1.870" (47,5 mm)	0.875" (22,2 mm)	6 each

PRODUCT REFERRAL GENERATOR



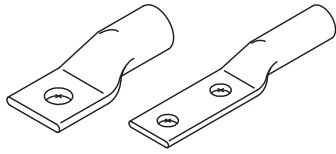
Terminatingpg. 272
 – QT-III 7600 Series
 Motor Leadpg. 377
 – 5300 Series



Specifications and Ordering Information for 3M™ Scotchlok™ Copper/Aluminum Lugs 40000 Series-Two Hole (AL9CU) up to 35 kV

Product Number	UPC (054007-)	Color Code	Wire Size	Stud Size	Dimensions							Minimum Order Case Qty.
					I.D.	L	B	W	P	C	C1	
40132	13608	Tan	1/0 AWG	3/8" (10 mm)	0.414" (10,5 mm)	5.28" (134,1 mm)	1.500" (38,1 mm)	0.880" (22,4 mm)	3.250" (82,6 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40137	13616	Olive	2/0 AWG	1/2" (12 mm)	0.439" (11,2 mm)	5.500" (139,7 mm)	1.500" (38,1 mm)	0.940" (23,9 mm)	3.250" (82,6 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40141	13624	Ruby	3/0 AWG	1/2" (12 mm)	0.484" (12,3 mm)	5.500" (139,7 mm)	1.500" (38,1 mm)	1.060" (26,9 mm)	3.250" (82,6 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40145	13632	White	4/0 AWG	1/2" (12 mm)	0.562" (14,3 mm)	5.940" (150,9 mm)	1.750" (44,5 mm)	1.190" (30,2 mm)	3.380" (85,9 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40149	13640	Red	250 kcmil	1/2" (12 mm)	0.594" (15,1 mm)	6.000" (152,4 mm)	1.750" (44,5 mm)	1.250" (31,8 mm)	3.380" (85,9 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40153	13657	Dark Blue	300 kcmil (150 mm ²)	1/2" (12 mm)	0.650" (16,5 mm)	6.560" (166,6 mm)	2.250" (57,2 mm)	1.310" (33,3 mm)	3.560" (90,4 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40156	13665	Brown	350 kcmil	1/2" (12 mm)	0.720" (18,3 mm)	6.560" (166,6 mm)	2.250" (57,2 mm)	1.500" (38,1 mm)	3.560" (90,4 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40160	13673	Green	400 kcmil	1/2" (12 mm)	0.760" (19,3 mm)	6.880" (174,8 mm)	2.500" (63,5 mm)	1.620" (41,1 mm)	3.560" (90,4 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40166	13681	Pink	500 kcmil	1/2" (12 mm)	0.843" (21,4 mm)	7.310" (185,7 mm)	3.000" (76,2 mm)	1.750" (44,5 mm)	3.560" (90,4 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	10 each
40170	13699	Black	600 kcmil	1/2" (12 mm)	0.923" (23,4 mm)	7.500" (190,5 mm)	3.000" (76,2 mm)	1.750" (44,5 mm)	3.620" (91,9 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	6 each
40172	13707	Yellow	750 kcmil	1/2" (12 mm)	1.031" (26,2 mm)	8.250" (209,6 mm)	3.380" (85,9 mm)	1.750" (44,5 mm)	3.620" (91,9 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	6 each
40178	13715	Brown	1000 kcmil (500 mm ²)	1/2" (12 mm)	1.193" (30,3 mm)	9.620" (244,3 mm)	4.620" (117,4 mm)	2.560" (65,0 mm)	3.620" (91,9 mm)	0.620" (15,7 mm)	1.750" (44,4 mm)	6 each

Oil Seal Lugs



PRODUCT REFERRAL GENERATOR

Terminatingpg. 289
 – 5800-Pb Series

Specifications and Ordering Information for 3M™ Oil Seal Lugs up to 35 kV

Product Number	Description	UPC (054007-)	Stud Size	Conductor Range		Solid	Inner Unit Pack	Minimum Order Case Qty.
				Stranded	I.D.			
OS-0001	One hole	50438	3/8"	2	0.307"	1	1	10 each
OS-0010	One hole	50439	3/8"	1/0	0.414"	2/0	1	10 each
OS-0020	One hole	50440	3/8"	2/0	0.439"	3/0	1	10 each
OS-0030	One hole	50441	1/2"	3/0	0.490"	4/0	1	10 each
OS-0040	One hole	50442	1/2"	4/0	0.548"	250	1	10 each
OS-0250	Two holes	50443	1/2"	250	0.595"	—	2	10 each
OS-0350	Two holes	50444	1/2"	350	0.700"	—	2	10 each
OS-0500	Two holes	50445	1/2"	500	0.886"	—	2	10 each
OS-0750	Two holes	50446	1/2"	750	1.031"	—	—	3 each
OS-1000	Two holes	50447	1/2"	1000	1.173"	—	—	3 each

Note: 3M oil seal lugs are copper lugs specially made for use with the 5800-Pb series cold shrink termination kits and on copper conductors.

SC Series Stem Connectors



PRODUCT REFERRAL GENERATOR

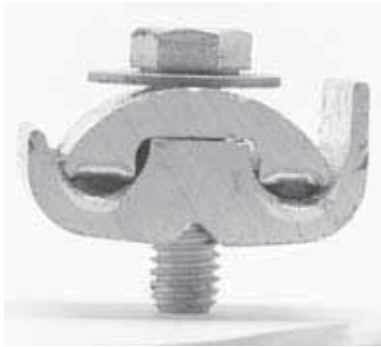
Terminatingpg. 272
 – 7600 Series
 – 5600 Series

Specifications and Ordering Information for 3M™ Stem Connectors SC Series up to 35 kV

Product Number	Description	UPC (054007-)	Stem Diameter	Conductor AWG Size		Inner Unit Pack	Minimum Order Case Qty.
				Stranded	Solid		
SC0001	Size 2 & 1	14655	0.257"	2 & 1	1 & 1/0	1/box	10 each
SC0002	Size 2	14648	0.257"	4	2	1/box	10 each
SC0010	Size 1/0	14663	0.257"	1/0	2/0	1/box	10 each
SC0020	Size 2/0	14671	0.325"	2/0	3/0	1/box	10 each
SC0030	Size 3/0	14689	0.325"	3/0	4/0	1/box	10 each
SC0040	Size 4/0	14697	0.325"	4/0	—	1/box	10 each

Note: The 3M SC series stem connectors can be used with 3M cold shrink terminations. The stem connectors have copper stems, aluminum barrels with antioxidant paste and are used for copper or aluminum conductors.

CP Parallel Clamp



PRODUCT REFERRAL GENERATOR

Connectingpg. 157
 – Stem Connectors SC Series

Specifications and Ordering Information for 3M™ Parallel Clamp CP-1 up to 35 kV

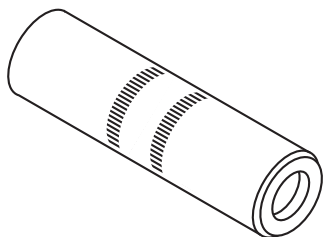
Product Number	UPC (054007-)	Conductor Size	Minimum Order Case Qty.
CP-1	12204	6 Solid-2/0 Stranded (14-60 mm)	10 each

Note: The 3M CP-1 parallel clamp is used in aerial connections with the SC series stem connectors.

Guide to Connectors by Product Number Suffixes for Terminations and Splices

Suffix	Product Number	Description
-2	SC0001	Stem Connector
-22	SC0002	Stem Connector
-1/0	SC0010	Stem Connector
-2/0	SC0020	Stem Connector
-3/0	SC0030	Stem Connector
-4/0	SC0040	Stem Connector
-350 AL	20011	(CU/AL) Connector
-350 CU	10011 or 11011	(CU) Connector
-500 AL	20014	(CU/AL) Connector
-500 CU	10014 or 11014	(CU) Connector
-750 AL	20019	(CU/AL) Connector
-750 CU	10019 or 11019	(CU) Connector
-1000 AL	20024	(CU/AL) Connector
-1000 CU	10024 or 11024	(CU) Connector

CI Series Connectors



PRODUCT REFERRAL GENERATOR

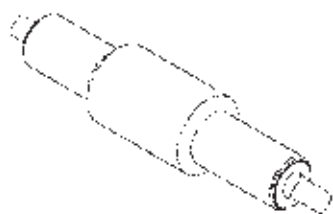
Splicingpg. 342
 – 5400 Series
 – 5420 Series
 – QS-II Splices

Specifications and Ordering Information for 3M™ Aluminum Connectors CI Series up to 35 kV

Product Number	Description	UPC (054007-)	Conductor Size Cu or Al		Length	Conductor O.D.	Minimum Order Case Qty.
			Stranded	Solid			
CI-22	Used with molded rubber splices 15 kV	25636	4 AWG	2 AWG	2.0	0.63" (16 mm)	10 each
CI-2	Used with molded rubber splices 15 kV	11651	2 AWG	1 AWG	2.0	0.63" (16 mm)	10 each
CI-21	Used with molded rubber splices 15 kV	11856	2, 1 AWG	1, 1/0 AWG	2.0	0.63" (16 mm)	10 each
CI-21-840	Used with molded rubber splices 25 kV	09136	2, 1 AWG	1, 1/0 AWG	3.0	0.90" (22 mm)	10 each
CI-1/0	Used with molded rubber splices 15 kV	11867	1/0 AWG	—	2.0	0.63" (16 mm)	10 each
CI-1/0-840	Used with molded rubber splices 25 kV	09137	1/0 AWG	—	3.0	0.90" (22 mm)	10 each
CI-2/0	Used with molded rubber splices 15 kV and 25 kV	11875	2/0 AWG	—	3.0	0.91" (23 mm)	10 each
CI-3/0	Used with molded rubber splices 15 kV and 25 kV	11883	3/0 AWG	—	3.0	0.90" (22 mm)	10 each
CI-4/0	Used with molded rubber splices 15 kV and 25 kV	11891	4/0 AWG	—	3.0	0.90" (22 mm)	10 each
CI-250	Used with molded rubber splices 15 kV and 25 kV	11909	250 kcmil	—	3.75	1.11" (28 mm)	10 each
CI-350	Used with molded rubber splices 15 kV and 25 kV	11925	350 kcmil	—	3.70	1.11" (28 mm)	10 each
CI-450	Used with molded rubber splices 15 kV and 25 kV	11933	500 kcmil Compact	—	4.25	1.3" (33 mm)	10 each
CI-500	Used with molded rubber splices 15 kV and 25 kV	25644	500 kcmil	—	4.25	1.3" (33 mm)	10 each
CI-650	Used with molded rubber splices 15 kV and 25 kV	11941	750 kcmil Compact	—	4.66	1.7" (43 mm)	10 each
CI-750	Used with molded rubber splices 15 kV and 25 kV	25651	750 kcmil	—	4.66	1.57" (40 mm)	10 each

Note: These 3M CI series connectors are for use with molded rubber splices and have a solid center stop.

CI-A Series Connectors



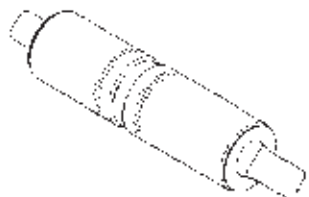
PRODUCT REFERRAL GENERATOR

Splicing	pg. 301
– 5420 Series.....	pg. 356
– 5432 Series.....	pg. 365
– 5450 Series.....	pg. 356
– 5461 Series.....	pg. 365

Specifications and Ordering Information for 3M™ Aluminum Connectors CI-A Series up to 35 kV

Product Number	Description	UPC (054007-)	Conductor Size Cu or Al		Conductor O.D.	Minimum Order Case Qty.
			Stranded	Solid		
CI-1/0A	Used with molded rubber splices 3M 5420 Series, 5461 splice kit and 5450 Series	14176	1/0 AWG	—	0.91" (23 mm)	10 each
CI-1A	Used with molded rubber splices 3M 5420 Series, 5461 splice kit and 5450 Series	00722	1 AWG	1/0 AWG	0.91" (23 mm)	10 each
CI-2A	Used with molded rubber splices 3M 5420 Series, 5461 splice kit and 5450 Series	00721	2 AWG	1 AWG	0.91" (23 mm)	10 each
CI-22A	Used with molded rubber splices 3M 5420 and 3M 5450 Series	15868	—	2 AWG	0.91" (23 mm)	10 each

CI-T Series Connectors



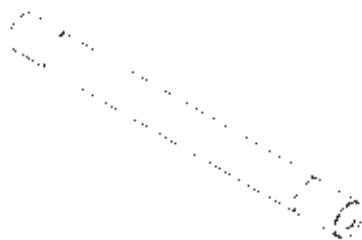
PRODUCT REFERRAL GENERATOR

Splicing	pg. 342
– 5411 Series	
– QS-II	

Specifications and Ordering Information for 3M™ Aluminum Transition Connectors CI-T Series up to 35 kV

Product Number	Description	UPC (054007-)	Conductor Size Cu or Al				Conductor O.D.	Minimum Order Case Qty.
			From Cable A		From Cable B			
			Stranded	Solid	Stranded	Solid		
CI-T-1	Transition connector used with 3M 5411 and 3M 5501 splice kits	11958	4	2	1	1/0	0.63" (16 mm)	10 each
CI-T-2	Transition connector used with 3M 5411 and 3M 5501 splice kits	11966	2	1	1	1/0	0.63" (16 mm)	10 each
CI-T-3	Transition connector used with 3M 5411 and 3M 5501 splice kits	11974	4	2	1/0	—	0.63" (16 mm)	10 each
CI-T-4	Transition connector used with 3M 5411 and 3M 5501 splice kits	11982	2	1	1/0	—	0.63" (16 mm)	10 each
CI-T-5	Transition connector used with 3M 5411 and 3M 5501 splice kits	11990	2	1	4	2	0.63" (16 mm)	10 each
CI-T-9	Transition connector used with 3M 5411 and 3M 5500 splice kits	44533	1	1/0	1/0	—	0.63" (16 mm)	10 each

CIR Series Connectors



PRODUCT REFERRAL GENERATOR

Splicingpg. 342
 – 5411R Series
 – 5412R Series
 – 5451R Series

Specifications and Ordering Information for 3M™ Aluminum Connectors CIR Series

Product Number	Description	UPC (054007-)	Conductor Size Cu or Al		Conductor O.D.	Splice Body	Minimum Order Case Qty.
			Stranded	Solid			
CIR-1/0	Used with molded rubber splice kit	09358	1/0 AWG	—	0.63" (16 mm)	5411R	10 each
CIR-1/0-840	Used with molded rubber splice kit	09137	1/0 AWG	—	0.91" (23 mm)	5451R	10 each
CIR-21	Used with molded rubber splice kit	09357	2, 1 AWG	1, 1/0 AWG	0.63" (16 mm)	5411R	10 each
CIR-21-840	Used with molded rubber splice kit	09136	2, 1 AWG	1, 1/0 AWG	0.91" (23 mm)	5451R	10 each
CIR-22	Used with molded rubber splice kit	09356	4 AWG (220 insul. only)	2 AWG	0.63" (16 mm)	5411R	10 each
CIR-1/0A	Used with molded rubber splice kit	50226	1/0 AWG	—	0.91" (23 mm)	5451R	10 each
CIR-2/0	Used with molded rubber splice kit	41964	2/0 AWG (220 mil only)	—	0.91" (23 mm)	5412R	10 each
CIR-3/0	Used with molded rubber splice kit	41965	3/0 AWG	—	0.91" (23 mm)	5412R	10 each
CIR-4/0	Used with molded rubber splice kit	50228	4/0 AWG	—	0.91" (23 mm)	5412R	10 each
CIR-21A	Used with molded rubber splice kit	50227	2, 1 AWG	1, 1/0 AWG	0.91" (23 mm)	5451R	10 each

Note: These extra-long connectors are used to bridge gaps up to 6 inches when a piece of damaged cable is removed. They can be used with copper or aluminum conductors.

2000T Series Connectors

3M™ Scotchlok™ Reducer Series Connectors 2000T-CU/AL up to 35 kV

The 3M Scotchlok Reducer Series Connectors 2000T-CU/AL are aluminum inline sleeves that are applicable for both aluminum and copper conductors and are specifically designed for use with PILC power cable. The barrel diameters on each end are different, to allow connecting conductors of different size. They can be used on concentric, compressed and compact stranded conductors. When used with sector shaped conductors, a rounding die is recommended to round out the sector shape. The 2000T Reducer Series connectors, like all 2000T series connectors are designed for use with 3M splice kits, CS500 Series, Scotchlok 2000T Series, Scotchlok 2000-3T Series and 5700 Series splice kits. These connectors have a solid center oil stop and meet ANSI Standard C-119.4.



Specifications and Ordering Information for 3M Scotchlok Reducer Series Connectors 2000T-CU/AL

Product Number	UPC (054007-)	O.D.*	Length	Minimum Order Case Qty.
2000T 2-1/0 CU/AL	42226	0.640"	4.740"	9 connectors
2000T 1/0-2/0 CU/AL	42228	0.910"	4.700"	3 connectors
2000T 2/0-4/0 CU/AL	42229	0.910"	4.700"	3 connectors
2000T 4/0-350 CU/AL	42231	1.125"	4.700"	3 connectors
2000T 250-350 CU/AL	42232	1.125"	4.690"	3 connectors
2000T 350-500 CU/AL	42234	1.320"	4.700"	3 connectors
2000T 500-750 CU/AL	42236	1.600"	6.250"	3 connectors
2000T 500-1000 CU/AL	42238	1.625"	6.250"	3 connectors
2000T 750-1000 CU/AL	42243	1.625"	6.250"	3 connectors

* No quantity of this connector size is maintained. Connector is available with 12 week lead time. Connectors for cable sizes not listed are available with approval. Contact your Customer Service Representative for ordering information: 1-800-245-3573.

PRODUCT REFERRAL GENERATOR

Splicingpg. 371
 – CS 500Pb Series
 – QS 2000T Series
 – QS 2000-3T Series

3M™ Scotchlok™ Connectors 2000T-CU Series up to 35 kV

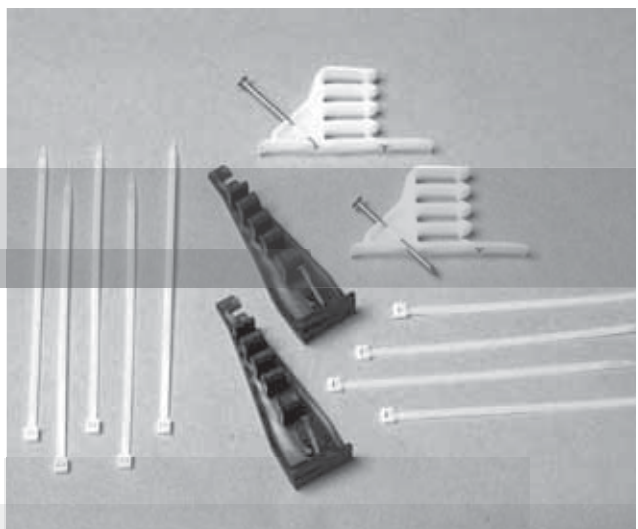
The 3M Scotchlok Series Connectors 2000T-CU Series are copper inline sleeves for use with copper conductor cables of the same size and are specifically designed for use with PILC power cable. They can be used to connect copper cable only. They are designed with a solid center oil stop for use with CS500 Series splice kits, Scotchlok 2000T Series, Scotchlok 2000-3T Series and 5700 Series splice kits. They can be used on concentric, compressed and compact stranded conductors. When used with sector shaped conductors, a rounding die is recommended to round out the sector shape. These connectors meet ANSI Standard C-119.4. See page 371 for splice kit information.



Specifications and Ordering Information for 3M Scotchlok 2000T-CU Series up to 35 kV

Product Number	UPC (054007-)	O.D.	Length	Minimum Order Case Qty.
2000T - 2 CU	42247	0.700"	5.320"	9 connectors
2000T - 1/0 CU	42249	0.700"	5.320"	3 connectors
2000T - 2/0 CU	42250	0.700"	5.320"	3 connectors
2000T - 4/0 CU	42252	0.880"	5.250"	3 connectors
2000T -250 CU	42253	0.880"	5.250"	3 connectors
2000T - 350 CU	42255	0.875"	5.250"	3 connectors
2000T - 400 CU	42256	1.125"	6.900"	3 connectors
2000T - 500 CU	42258	1.125"	6.900"	3 connectors
2000T - 750 CU	42263	1.299"	6.900"	3 connectors
2000T - 1000 CU	42265	1.500"	6.900"	3 connectors

Fastening Products



Cable Ties and Assortment Pack	166
Cable Tie Bases	170
Cable Stackers	171

FREQUENTLY ASKED QUESTIONS

What is the difference between black and natural cable ties?	Black ties are for indoor or outdoor use (UV resistant). Natural ties are for indoor use only.
Can we break case quantities?	Refer to your Price Pages under Broken Case Quantity.

Never slips on the job

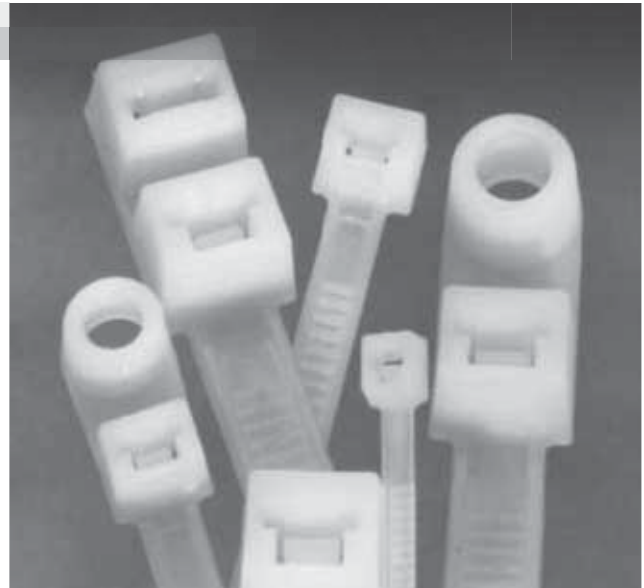


Cable Ties and Assortment Pack

3M™ Cable Ties

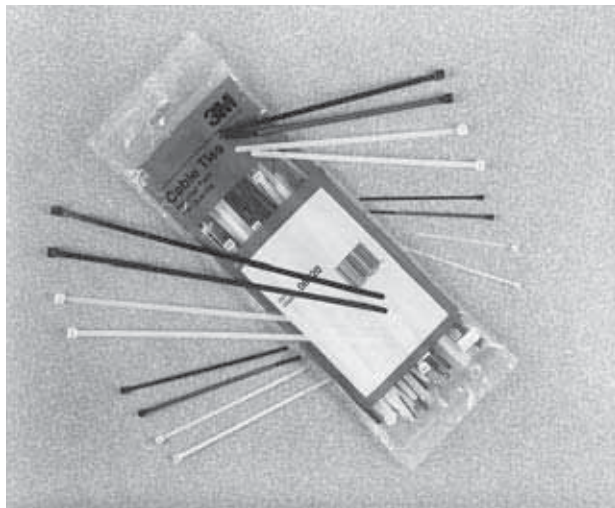
3M Cable Ties are designed to secure wire bundles and harness components quickly, without slipping. The self-locking head, with heavy double teeth on the one-piece lock mechanism, assures the 3M reliability you've come to expect.

Molded from 6/6 nylon, 3M cable ties are designed to meet a wide range of temperatures from -40°F (-40°C) to 185°F (85°C). They are available in a variety of sizes and styles, including weather-resistant black nylon for indoor and outdoor use and natural nylon for indoor use only. Our cable ties are UL Recognized (UL File No. E116841).



3M™ Cable Ties Family of Product

3M Cable Tie Assortment Packs



3M™ Cable Tie Assortment Pack

3M Cable Tie Assortment Pack contains 100 of our most commonly used ties. We give you three sizes, four lengths and both colors.













PRODUCT REFERRAL GENERATOR

Terminating	
– Terminals	47
Connecting	
– Spring Connectors	32
– IDC Connectors	38
Identifying	173

CABLE TIES

FEATURES	ADVANTAGES	BENEFITS
Bent tips	Easy insertion	Saves time
Flame retardant; fungus inert; resistant to solvents, alkalies and grease	Long life	Saves money

Specifications and Ordering Information for 3M™ Cable Ties

Product Description	Product Number	UPC (055128-)	Approx. Length	Approx. Max Bundle Dia.	Approx. Width	Loop Tensile	Inner Unit Pack	Certifications and Listings	Case Qty.
Miniature Cable Ties									
Natural	06224	06224*	4" (102 mm)	0.7" (17,8 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	100/bag		1000
Natural	06248	06248*	4" (102 mm)	0.7" (17,8 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	1000/bag		10000
Weather-Resistant Black	06200	06200*	4" (102 mm)	0.7" (17,8 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	100/bag		1000
Weather-Resistant Black	06270	06270*	4" (102 mm)	0.7" (17,8 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	1000/bag		10000
Natural	53168	53168	6" (152 mm)	1.7" (43 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	100/bag		1000
Natural	53219	53219	6" (152 mm)	1.7" (43 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	1000/bag		10000
Weather-Resistant Black	53169	53169	6" (152 mm)	1.7" (43 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	100/bag		1000
Weather-Resistant Black	53220	53220	6" (152 mm)	1.7" (43 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	1000/bag		10000
Natural	53172	53172	8" (203 mm)	2.2" (56 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	100/bag		1000
Natural	53223	53223	8" (203 mm)	2.2" (56 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	1000/bag		10000
Weather-Resistant Black	53173	53173	8" (203 mm)	2.2" (56 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	100/bag		1000
Weather-Resistant Black	53224	53224	8" (203 mm)	2.2" (56 mm)	0.1" (2,54 mm)	18 lbs. (8 kg)	1000/bag		10000
* UPC prefix 054007-									

Do the
job right.
Keep it tight.



Specifications and Ordering Information for 3M™ Cable Ties

Product Description	Product Number	UPC (051128-)	Approx. Length	Approx. Max Bundle Dia.	Approx. Width	Loop Tensile	Inner Unit Pack	Certifications and Listings
---------------------	----------------	---------------	----------------	-------------------------	---------------	--------------	-----------------	-----------------------------

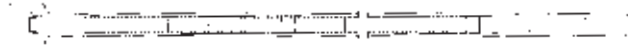
Intermediate Cable Ties



Natural	06225	06225*	6" (152 mm)	1.25" (31,8 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	100/bag	UL
Natural	06249	06249*	6" (152 mm)	1.25" (31,8 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	1000/bag	UL
Weather-Resistant Black	06201	06201*	6" (152 mm)	1.25" (31,8 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	100/bag	UL
Weather-Resistant Black	06271	06271*	6" (152 mm)	1.25" (31,8 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	1000/bag	UL
Natural	53174	53174	8" (203 mm)	2.2" (56 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	100/bag	UL
Natural	53225	53225	8" (203 mm)	2.2" (56 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	1000/bag	UL
Weather-Resistant Black	53175	53175	8" (203 mm)	2.2" (56 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	100/bag	UL
Weather-Resistant Black	53226	53226	8" (203 mm)	2.2" (56 mm)	0.14" (3,6 mm)	40 lbs. (18 kg)	1000/bag	UL

* UPC prefix 054007-

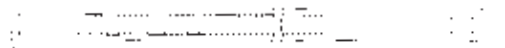
Standard Cable Ties



Natural	06226	06226*	8" (203 mm)	1.9" (48 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	100/bag	UL
Natural	06250	06250*	8" (203 mm)	1.9" (48 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	1000/bag	UL
Weather-Resistant Black	06202	06202*	8" (203 mm)	1.9" (48 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	100/bag	UL
Weather-Resistant Black	06272	06272*	8" (203 mm)	1.9" (48 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	1000/bag	UL
Natural	06227	06227*	11" (279 mm)	3.1" (79 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	100/bag	UL
Natural	06251	06251*	11" (279 mm)	3.1" (79 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	500/bag	UL
Weather-Resistant Black	06203	06203*	11" (279 mm)	3.1" (79 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	100/bag	UL
Weather-Resistant Black	06273	06273*	11" (279 mm)	3.1" (79 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	500/bag	UL
Natural	06228	06228*	15" (381 mm)	4" (102 mm)	0.19" (4,8 mm)	50 lbs. (22 kg)	100/bag	UL
Natural	06252	06252*	15" (381 mm)	4" (102 mm)	0.19" (4,8 mm)	50 lbs. (22 kg)	500/bag	UL
Weather-Resistant Black	06204	06204*	15" (381 mm)	4.1" (104 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	100/bag	UL
Weather-Resistant Black	06274	06274*	15" (381 mm)	4.1" (104 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	500/bag	UL

* UPC prefix 054007-

Heavy Duty Cable Ties



Natural	06229	06229*	8" (203 mm)	2" (221 mm)	0.3" (51 mm)	120 lbs. (54 kg)	50/bag	UL
Weather-Resistant Black	06206	06206*	8" (203 mm)	2" (221 mm)	0.3" (51 mm)	120 lbs. (54 kg)	50/bag	UL
Natural	06240	06240*	15" (381 mm)	4" (102 mm)	0.3" (51 mm)	120 lbs. (54 kg)	100/bag	UL
Natural	06264	06264*	15" (381 mm)	4" (102 mm)	0.3" (51 mm)	120 lbs. (54 kg)	500/bag	UL
Weather-Resistant Black	06207	06207*	15" (381 mm)	4" (102 mm)	0.3" (51 mm)	120 lbs. (54 kg)	100/bag	UL
Weather-Resistant Black	06277	06277*	15" (381 mm)	4" (102 mm)	0.3" (51 mm)	120 lbs. (54 kg)	500/bag	UL

* UPC prefix 054007-

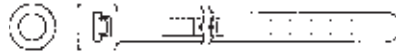
Specifications and Ordering Information for 3M™ Cable Ties

Product Description	Product Number	UPC (051128-)	Approx. Length	Approx. Max Bundle Dia.	Approx. Width	Loop Tensile	Inner Unit Pack	Certifications and Listings
---------------------	----------------	---------------	----------------	-------------------------	---------------	--------------	-----------------	-----------------------------

Extra Heavy Duty Cable Ties

Natural	53227	53227	24" (605 mm)	7.3" (185 mm)	0.35" (9 mm)	175 lbs. (79 kg)	50/bag	UL
Weather-Resistant Black	53228	53228	24" (605 mm)	7.3" (185 mm)	0.35" (9 mm)	175 lbs. (79 kg)	50/bag	UL
Natural	53184	53184	32" (813 mm)	9.7" (246 mm)	0.35" (9 mm)	175 lbs. (79 kg)	50/bag	UL
Black	53185	53185	32" (813 mm)	9.7" (246 mm)	0.35" (9 mm)	175 lbs. (79 kg)	50/bag	UL
Natural	53186	53186	48" (1219 mm)	15" (380 mm)	0.35" (9 mm)	175 lbs. (79 kg)	50/bag	UL
Black	53187	53187	48" (1219 mm)	15" (380 mm)	0.35" (9 mm)	175 lbs. (79 kg)	50/bag	UL

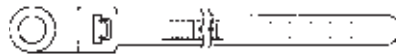
Mounting Cable Ties, Standard (#10 Screw)



Natural	06232	06232*	8" (203 mm)	1.8" (44 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	100/bag	UL
Natural	06256	06256*	8" (203 mm)	1.8" (44 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	1000/bag	UL
Weather-Resistant Black	06205	06205*	8" (203 mm)	1.75" (44 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	100/bag	UL
Weather-Resistant Black	06275	06275*	8" (203 mm)	1.75" (44 mm)	0.18" (4,6 mm)	50 lbs. (22 kg)	1000/bag	UL
Natural	06234	06234*	15" (381 mm)	4" (102 mm)	0.19" (4,8 mm)	50 lbs. (22 kg)	50/bag	UL
Natural	06258	06258*	15" (381 mm)	4" (102 mm)	0.19" (4,8 mm)	50 lbs. (22 kg)	500/bag	UL

* UPC prefix 054007-

Mounting Cable Ties, Heavy Duty (1/4" Screw)



Natural	06243	06243*	15" (381 mm)	4.8" (121 mm)	0.31" (7,8 mm)	120 lbs. (54 kg)	50/bag	UL
Natural	06267	06267*	15" (381 mm)	4.8" (121 mm)	0.31" (7,8 mm)	120 lbs. (54 kg)	500/bag	UL

* UPC prefix 054007-

Specifications and Ordering Information for 3M™ Cable Tie Assortment Pack

Product Number	UPC (054007-)	Product Description	Size	Approx. Length	Number of Ties per Assortment Pack
06220	06220	Assortment Pack			
		Natural	Miniature	4" (102 mm)	15
		Weather-Resistant Black	Miniature	4" (102 mm)	10
		Natural	Intermediate	6" (152 mm)	15
		Weather-Resistant Black	Intermediate	6" (152 mm)	10
		Natural	Standard	8" (203 mm)	15
		Weather-Resistant Black	Standard	8" (203 mm)	10
		Natural	Standard	11" (279 mm)	15
		Weather-Resistant Black	Standard	11" (279 mm)	10






Cable Tie Bases

3M™ Cable Tie Bases

3M Cable Tie Bases 06290 Series makes mounting wire and cable a quick, easy and secure process. Our bases are available in four styles and five sizes. They are designed so they can be screw-mounted, and eight of the 10 have an adhesive backing for extra easy application.

Every 3M cable tie can be mounted using one of these cable tie bases. 3M cable ties and cable tie bases work in temperatures ranging -40°F to 185°F (-40°C to 85°C).

Specifications and Ordering Information for 3M Cable Tie Bases 06290 Series

Product No./Color/ Material	UPC (054007-)	Dimensions					Cable Size	Entry Loc.	Screw Size	Inner Unit Pack	Minimum Order Case Qty.	
		Length	Width	Height	Slot Height	Slot Width						
 06290 Ivory/ABS	06290	1.0"	2.0"	0.315"	0.184"	0.208"	Miniature Intermediate Standard	2	—	100/bag	500	
		(25,4 mm)	(50,8 mm)	(8 mm)	(4,67 mm)	(5,28 mm)						
06291 Ivory/ABS	06291						Miniature Intermediate Standard	2	—	250/bag	2500	
 06292 Ivory/ABS	06292	1.0"	0.115"	0.075"	0.21"		Miniature Intermediate Standard	2	(2) #6	100/bag	500	
		(25,4 mm)	(2,9 mm)	(1,9 mm)	(5 mm)							
06293 Ivory/ABS	06293						Miniature Intermediate Standard	2	(2) #6	250/bag	2500	
 06294 Natural/Nylon	06294	0.75"	0.75"	0.205"	0.05"	0.125"	Miniature Intermediate	4	—	100/bag	500	
		(18,04 mm)	(18,04 mm)	(5,21 mm)	(1,27 mm)	(3,18 mm)						
	06295 Black/Nylon	06295						Miniature Intermediate	4	—	100/bag	500
06296 Natural/Nylon	06296	1.0"	1.0"	0.215"	0.07"	0.203"	Miniature Intermediate Standard	4	—	100/bag	500	
		(25,4 mm)	(25,4 mm)	(5,46 mm)	(1,78 mm)	(5,16 mm)						
06297 Black/Nylon	06297						Miniature Intermediate Standard	4	—	100/bag	500	
 06298** Natural/Nylon	06298	0.6"	0.385"	0.28"	0.156"	0.203"	Miniature Intermediate Standard	2	(1) #6	100/bag	500	
		(15,24 mm)	(9,77 mm)	(7,11 mm)	(3,97 mm)	(5,16 mm)						
 06299** Natural/Nylon	06299	0.875"	0.625"	0.39"	0.218"	0.32"	Intermediate Standard Heavy-Duty Extra Heavy-Duty	2	(1) #10	100/bag	500	
		(22,22 mm)	(15,87 mm)	(9,9 mm)	(5,54 mm)	(8,13 mm)						

** Screw Mounting Only

Cable Stackers

3M™ Cable Stacker SI-1

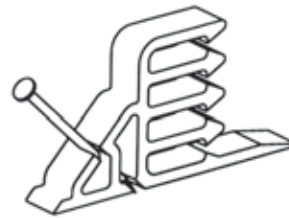
3M Cable Stacker SI-1 centers multiple cables on a 2 x 4 framing member, in vertical or horizontal raceways, allowing simplified compliance with article 300-4-(d) of the National Electrical Code. It organizes cable runs and aids in identification, putting an end to tangled wires and the potential heating that could occur when cables are held together tightly under a single fastener. Installation is easy with cables snapping in for a positive lock, simplifying compliance with the spacing requirements of the National Electrical Code, article 334.30 and the Canadian Electric Code Part I, Section 12-516. The cable stacker also meets flame retardant UL94HB material.



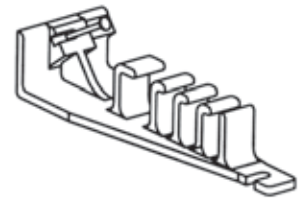
3M™ Cable Stacker SI-1

3M™ Furring Strip Cable Stacker SIFS-1

3M Furring Strip Cable Stacker SIFS-1 is made for round cable as well as flat. It has the easy installation of the cable stacker SI-1 and is made from reclaimed plastic as well. The ease of organization and identification provided by the furring strip cable stacker SIFS-1 combined with its versatility of use—routing, fastening and supporting CATV, telephone, security and instrumentation cables—simplifies compliance with the spacing requirements of the National Electrical Code, article 334.30 and the Canadian Electric Code Part I, Section 12-516.



SI-1



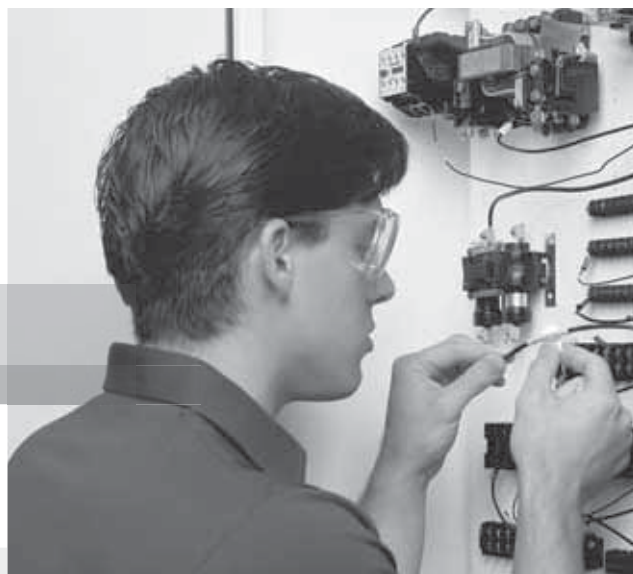
SIFS-1

Specifications and Ordering Information for 3M Cable Stackers

Product Number	UPC (054007-)	UF or NM Cable-Flat		UF or NM Cable-Round		Telephone, Signal, Cables, etc.		Inner Unit Pack	Case Qty.
		Quantity	Size	Quantity	Size	Quantity	Size		
SI-1	49554	1-8	14-2w/g	1-2	14-3w/g	1-10	RG-59	25/bag	250
		1-4	12-2w/g	1-2	12-3w/g	1-10	RG-8		
		1-4	10-2w/g			1-12	Cat. 5		
		1-4	14-3w/g						
		1-2	12-3w/g						
SIFS-1	49918	1-3	14-2w/g	1-3	14-2w/g	1-6	RG-59	25/bag	250
		1-3	12-2w/g	1	12-2w/g	1-6	RG-8		
		1-3	10-2w/g	1	10-2w/g	1-6	Cat. 5		

Wire Marking and Identifying

Dispensers	174
Books	179



3M™ ScotchCode™ identification systems give you dozens of ways to mark your product. The line from 3M includes dispensers, preprinted alphanumeric and colored tape, write-on books and tags. You have the choice of pressure-sensitive adhesive or self-laminating adhesive — whichever is best for your needs. Use these products for marking wire and cable of all diameters, distribution panels, repair and replacement parts, wires and hoses in motorized vehicles, terminal strips, motor leads, sub-motor leads, sub-assembly leads, control panels and much more.

3M SCOTCHCODE WIRE MARKING AND IDENTIFYING PRODUCTS

FEATURES	ADVANTAGES	BENEFITS
Preprinted wire markers	Easy to read	Easy to use
Write-on wire markers	Convenient customization	Saves money
Wire marker tags	Easily removed or repositioned	Saves time
Self-laminating markers	Stay in place	Reduces worry
Adhesive marker	Long term	Security

FREQUENTLY ASKED QUESTIONS

How will I know if the STD dispenser is pre-filled or empty?	STD is empty; STD-C and STD-0-9 are pre-filled
What is the tape width on the STD rolls?	0.215 inches
What are the number of digits on the rolls?	There are 576 digits per roll

Dispensers

3M™ ScotchCode™ Dispenser STD-TAG

The patented 3M ScotchCode Dispenser STD-TAG simplifies the process of permanently or temporarily marking wires with ScotchCode wire marker tags. The dispenser allows easy printing of the tag with a permanent marking pen.

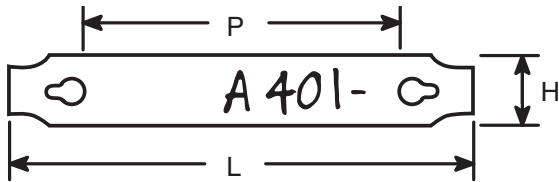
A built-in blade quickly and neatly cuts the marker. The dispenser also provides a handy platform on which to write, something that's not always readily available in the field.

The STD-TAG dispenser is refillable and designed to hold two cartridges of STD wire marking tags (two different sizes), as well as a 3M ScotchCode Permanent Marking Pen SMP. The tool is rugged and compact. The tags are available in two sizes, STD-101 and STD-102. Applications for both types of tags include identifying wire, cable conduit and tubing, as well as bundling wire, cable or any other objects with a circumference which can be handled with a miniature or standard width cable tie.



3M™ ScotchCode™ Dispenser STD-TAG

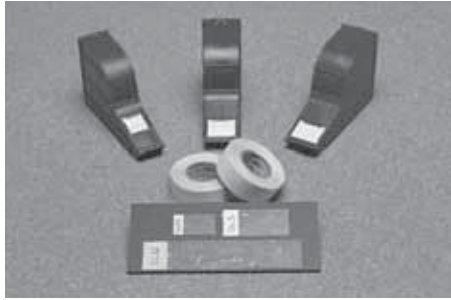
Specifications and Ordering Information for 3M™ ScotchCode Dispenser STD-TAG



Product Number	UPC (054007-)	Label Per Roll	Write-On Area		Marker Size		Recommended Wire Size	Min. Order Case Qty.
			P	H	L	H		
STD-TAG	50345	—	—	—	—	—	—	10*
STD-101	50346	50	1.53" (38,8 mm)	0.375" (9,53 mm)	2.40" (60,96 mm)	0.375" (9,53 mm)	18–10 AWG (0,75–4,0 mm ²)	10 (0,5–1,5 mm ²)
STD-102	50347	75	0.86" (21,84 mm)	0.250" (6,35 mm)	1.60" (40,6 mm)	0.250" (6,35 mm)	22–14 AWG (0,5–1,5 mm ²)	10 (0,5–1,5 mm ²)
SMP-B	09963	—	—	—	—	—	—	50

* This case quantity is 10 sets of: 1 STD-TAG, 1 STD-101, 1 STD-102, and 1 SMP pen. SMP Marker Pen is black.

3M™ ScotchCode™ Write-On Dispensers



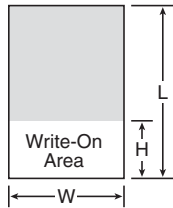
3M™ ScotchCode™ Write-On Dispensers

These three self-laminating, write-on marker dispensers are handy for identifying wire and cable as well as household, automotive, plumbing and sporting equipment. They are easy to use, refillable and come with an SMP permanent marking pen. The dispensers' design provides convenience and protects the die-cut adhesive markers.

Applications:

- Home Use: VCRs, TVs, cable, stereo components, phones, computers, luggage, satellite installation
- Do-It-Yourself Home Improvements: home security, sprinkler systems, sound systems, exterior lighting design
- Automotive: plugs, hoses, spark plugs, stereos, car alarms
- Plumbing: pipes, hoses, tubes, parts, vents
- Sporting Equipment: golf clubs, camping equipment, bags, bats, fishing rods, rackets, bicycles
- Equipment Identification: hand and power tools

Specifications and Ordering Information for 3M™ ScotchCode Write-On Dispensers

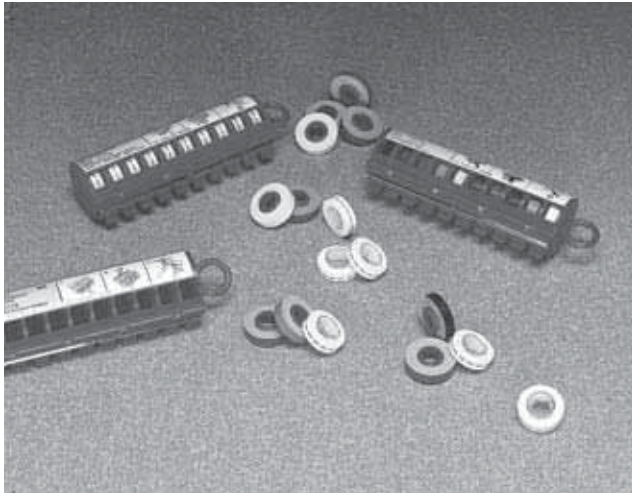


Product Number	UPC (054007-)	Description	Labels Per Roll	Write-On Area		Marker Size		Recommended Wire O.D.	Inner Unit Pack	Min. Order Case Qty.
				W	H	W	L			
SLS	49653	Largest dispenser with tape and SMP pen	170	1" (25 mm)	0.5" (13 mm)	1" (25 mm)	2.312" (58 mm)	0.15 - 0.49" (3,8 - 12,4 mm)	1/card	10
SLS-R	49652	Refill roll for SLS	170	1" (25 mm)	0.5" (13 mm)	1" (25 mm)	2.312" (58 mm)	0.15 - 0.49" (3,8 - 12,4 mm)	1/card	10
SLW	12177	Largest dispenser with tape and SMP pen	70	1" (25 mm)	0.75" (19 mm)	1" (25 mm)	5" (127 mm)	0.23 - 1.32" (3,8 - 12,4 mm)	1/card	10
SLW-R	49651	Refill roll SLW	70	1" (25 mm)	0.75" (19 mm)	1" (25 mm)	5" (127 mm)	0.23 - 1.32" (5,8 - 35,5 mm)	1/card	10
SWD	11954	Regular dispenser with tape and SMP pen	250	0.75" (19 mm)	0.312" (8 mm)	0.75" (19 mm)	1.375" (35 mm)	0.09 - 0.31" (2,3 - 7,8 mm)	1/card	10
SWD-R	12201	Refill roll for SWD	250	0.75" (19 mm)	0.312" (8 mm)	0.75" (19 mm)	1.375" (35 mm)	0.09 - 0.31" (2,3 - 7,8 mm)	1/card	10

3M SCOTCHCODE WRITE-ON DISPENSERS

FEATURES	ADVANTAGES	BENEFITS
Ergonomically designed	Markers dispense easily	Easy to use
Pens and refill rolls sold separately	Reusable	Saves money
Die-cut markers now in small, medium and large	Provides a variety of uses	Designed to increase productivity
Resists dirt, oil, heat and moisture	Markers stay clean and dry	Improves quality
Transparent overwrap with self-laminating, pressure-sensitive adhesive	Protects printing	Improves quality

3M™ ScotchCode™ Tape Dispenser STD



3M™ ScotchCode™ Tape Dispensers

The ScotchCode™ Tape Dispenser STD is a compact, carry-along dispenser with 10 refillable compartments that hold 8-foot rolls of non-smear polyester tape. Used for marking binder groups, wire or cable, the tapes' high-tack acrylic adhesive resists solvents, oil and water, and adheres firmly to insulation surfaces. An end-loop hooks the dispenser easily to a tool pouch or belt. Dispensers can be ordered empty or filled with 10 rolls of either pre-printed numbers 0–9 or NEMA colors.

3M™ ScotchCode™ Dispenser Refill Rolls SDR

This aggressive adhesive system, combined with the flexible polyester film backing, provides a thin, conformable tape that is durable and will hold up in most industrial electrical applications. The smooth surface of this tape allows dirt and grime to be easily wiped off, providing text legibility even after extended exposure to a build-up of contamination. ScotchCode Wire Marking Tape SDR is available in 10 NEMA colors, individual numbers and consecutive numbers.

The SDR tape can be used for the following applications involving operating temperatures ranging from -40°F to 250°F (-40°C to 121°C):

- Marking all types of wire and cable including power, control, fiber optic, electronic, telecommunications and instrumentation
- Phase identification on large or small gauge wire or cable
- Identification of terminal blocks, terminal strips, and wire in panel boards or a piece of switchgear
- Automotive applications on tubing, hoses and replacement parts

Specifications and Ordering Information for 3M™ ScotchCode™ Wire Marker Tape Dispensers

Product Number	UPC (054007-)	Description	Min. Order Case Qty.
STD	12172	Dispenser only—holds 10 rolls	25
STD-X	49519	Dispenser only—holds 10 rolls	10
STD-0-9	12174	Dispenser filled with 10 rolls of numbered tape (one each of 0–9)	25
STD-0-9X	49518	Dispenser filled with 10 rolls of numbered tape (one each of 0–9)	10
STD-C	12175	Dispenser filled with 10 rolls of colored tape (one each of black, blue, brown, green, gray, orange, red, violet, white and yellow)	25
STD-CX	49517	Dispenser filled with 10 rolls of colored tape (one each of black, blue, brown, green, gray, orange, red, violet, white and yellow)	10

3M SCOTCHCODE WIRE MARKER TAPE DISPENSER STD

FEATURES	ADVANTAGES	BENEFITS
Compact design	Easy to handle	Easy to use
Hangs from a tool belt	Convenient	Easy to use
Provides contamination protection around the wire markers	Markers stay clean and dry	Improves quality
Can be custom filled to meet specific project requirements	No waste	Saves money
Dispenses only the desired length	Prevents waste	Saves money
Holds 10 rolls of SDR wire marking tape	Compact	Designed to increase productivity

Specifications and Ordering Information for 3M™ ScotchCode™ Wire Marker Tape SDR (Refills)

Product Number	UPC (054007-)	Description	Inner Unit Pack	Case Qty.
SDR-0	09369	0	10/box	50
SDR-1	09370	1	10/box	50
SDR-2	09371	2	10/box	50
SDR-3	09372	3	10/box	50
SDR-4	09373	4	10/box	50
SDR-5	09374	5	10/box	50
SDR-6	09375	6	10/box	50
SDR-7	09376	7	10/box	50
SDR-8	09377	8	10/box	50
SDR-9	09378	9	10/box	50
SDR-0-9	09368	Consecutive 0–9	10 rls/pk	50
SDR 10-19	09379	Consecutive 10–19	10 rls/pk	50
SDR 20-29	09380	Consecutive 20–29	10 rls/pk	50
SDR 30-39	09381	Consecutive 30–39	10 rls/pk	50
SDR 40-49	09382	Consecutive 40–49	10 rls/pk	50
SDR 50-59	09383	Consecutive 50–59	10 rls/pk	50
SDR 60-69	09384	Consecutive 60–69	10 rls/pk	50
SDR 70-79	09385	Consecutive 70–79	10 rls/pk	50
SDR 80-89	09386	Consecutive 80–89	10 rls/pk	50
SDR 90-99	09387	Consecutive 90–99	10 rls/pk	50
SDR-A	09388	A	10/box	50
SDR-B	09389	B	10/box	50
SDR-C	09390	C	10/box	50
SDR-D	09391	D	10/box	50
SDR-E	09392	E	10/box	50
SDR-F	09393	F	10/box	50
SDR-G	09394	G	10/box	50
SDR-H	09395	H	10/box	50
SDR-I	09396	I	10/box	50
SDR-J	09397	J	10/box	50
SDR-K	09398	K	10/box	50
SDR-L	09399	L	10/box	50
SDR-M	09403	M	10/box	50
SDR-N	09405	N	10/box	50

Continued on next page

Specifications and Ordering Information for 3M™ ScotchCode™ Wire Marker Tape SDR (Refills)

Product Number	UPC (054007-)	Description	Inner Unit Pack	Case Qty.
SDR-O	09406	O	10/box	50
SDR-P	09407	P	10/box	50
SDR-Q	09408	Q	10/box	50
SDR-R	09409	R	10/box	50
SDR-S	09410	S	10/box	50
SDR-T	09411	T	10/box	50
SDR-U	09415	U	10/box	50
SDR-V	09416	V	10/box	50
SDR-W	09417	W	10/box	50
SDR-X	09418	X	10/box	50
SDR-Y	09419	Y	10/box	50
SDR-Z	09420	Z	10/box	50
SDR-L1	09400	L1	10/box	50
SDR-L2	09401	L2	10/box	50
SDR-L3	09402	L3	10/box	50
SDR-T1	09412	T1	10/box	50
SDR-T2	09413	T2	10/box	50
SDR-T3	09414	T3	10/box	50
SDR- + (Plus)	09421	+	10/box	50
SDR- - (Minus)	09422	—	10/box	50
SDR-BK	09423	Black	10/box	50
SDR-BL	09424	Blue	10/box	50
SDR-BN	09425	Brown	10/box	50
SDR-GN	09426	Green	10/box	50
SDR-GY	09427	Gray	10/box	50
SDR-MC	09404	Multiple Colors	10 rls/pk	50
SDR-OR	09428	Orange	10/box	50
SDR-RD	09429	Red	10/box	50
SDR-VL	09458	Violet	10/box	50
SDR-WH	09430	White	10/box	50
SDR-YL	09431	Yellow	10/box	50

Books

3M™ ScotchCode™ Pre-Printed Wire Marker Books SPB

When you need to mark wires quickly, try ScotchCode Pre-printed Wire Marker Books SPB. These handy books, 15 in all, contain printed vinyl-coated cloth wire and terminal markers with clearly printed letters, numbers and industry-standard legends. Books for alarm systems and load centers are also available. Each SPB book contains a minimum of 450 marks.

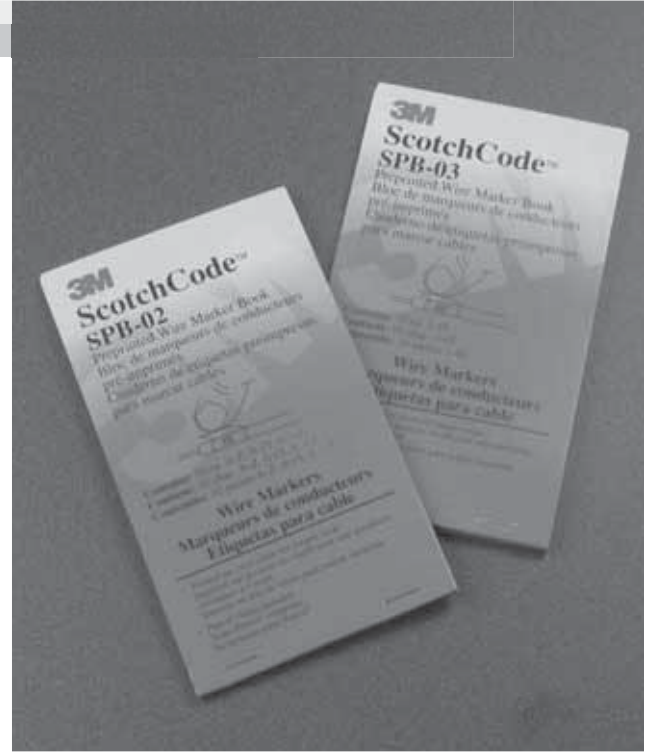
The cover of each SPB book lists the complete contents. On the back is a listing that helps you find the SPB book you need.

3M™ ScotchCode™ Write-On Books SWB

This self-laminating, write-on marker was designed for small volume applications involving special or complex legends that are handwritten at the job site.

3M™ ScotchCode™ Marker Pens SMP

3M ScotchCode Permanent Marking Pens SMP are suggested for use with ScotchCode write-on products. These pens perform well on nonporous surfaces, have an



3M™ ScotchCode™ Pre-Printed Wire Marker Books SPB

extra-fine point with permanent, quick-drying ink and are available in black ink. They have superior UV and water resistance.

3M SCOTCHCODE WIRE MARKER BOOKS

FEATURES	ADVANTAGES	BENEFITS
Clearly printed (SPB-specific)	Legible, neat	Easy to use
Wide variety of printed characters	Contain marks for several standard applications	Designed to increase productivity
Single character marker included with each marker for terminal block identification	Convenient	Easy to use

PRODUCT REFERRAL GENERATOR

Taping	pg. 1
Terminating	
– Terminals.....	pg. 47
Fastening	pg. 165
Connecting	
– Spring Connectors.....	pg. 32

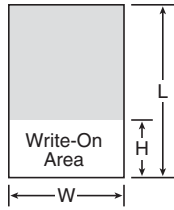
Specifications and Ordering Information for 3M™ ScotchCode™ Pre-Printed Wire Marker Book SPB

Product Number	UPC (054007-)	Quantity (each)	Contents	Inner Unit Pack	Min. Order Case Qty.
SPB-01	49951	45 15	0-9 L1-L3, T1-T3	1/bag	5
SPB-02	49952	10	A-Z, 0-15, +, -, /	1/bag	5
SPB-03	49953	10	1-45	1/bag	5
SPB-04	49954	150	1, 2, 3	1/bag	5
SPB-05	49955	150	A, B, C	1/bag	5
SPB-06	49956	150	T1, T2, T3	1/bag	5
SPB-07	49957	150	L1, L2, L3	1/bag	5
SPB-08	49958	6 4 2	1-15 16-90 A-Z, +, -, /, 0	1/bag	5
SPB-09	49959	45 30	1, 2, 3, A, B, C L1-L3, T1-T3	1/bag	5
SPB-11	49960	15	1-30	1/bag	5
SPB-12	49961	15 8 6 21	A-Z + - Write-On Markers	1/bag	5
SPB-13	49962	45 33 27 21	+ , -, AC, DC POS, NEG, GND NEUT, SPARE Write-On Markers	1/bag	5
SPB-14	49963	10	46-90	1/bag	5
SPB-15AS1	49964	9 5 2 21	30 Alarm System Legends* 1-15 16-45 Write-On Markers	1/bag	5
SPB-16LC1	49965	5 110	68 Load Center Legends** Write-On Markers	1/bag	5

*30 Alarm System Legends: + Circuit +, - Circuit -, + DC, -DC, AC AC, ZONE 1, ZONE 2, ZONE 3, ZONE 4, ZONE 5, ZONE 6, ZONE 7, ZONE 8, ZONE 9, SHUNT, GROUND, FIRE, BA BA, FEED, RETURN, PHONE FEED, PHONE RETURN, BELL, ANNUNCIATOR, TAMPER, 12 VOLT, 16 VOLT, 24 VOLT, SMOKE DETECTOR, THERMOSTAT.

**68 Load Center Legends: MAIN, REFRIGERATOR, FREEZER, RANGE, DISPOSAL, COMPACTOR, DISHWASHER, KITCHEN LIGHTS, KITCHEN OUTLETS, GFI KITCHEN, LIVING LIGHTS 1, LIVING LIGHTS 2, LIVING OUTLETS 1, LIVING OUTLETS 2, DINING LIGHTS, DINING OUTLETS, DEN LIGHTS, DEN OUTLETS, BATH 1 GFI, BATH 1 OUTLETS, BATH 1 LIGHTS, BATH 2 GFI, BATH 2 OUTLETS, BATH 2 LIGHTS, BATH 3 GFI, BATH 3 OUTLETS, BATH 3 LIGHTS, BEDR'M 1 LIGHTS, BEDR'M 1 OUTLETS, BEDR'M 2 LIGHTS, BEDR'M 2 OUTLETS, BEDR'M 3 LIGHTS, BEDR'M 3 OUTLETS, BEDR'M 4 LIGHTS, BEDR'M 4 OUTLETS, BEDR'M 5 LIGHTS, BEDR'M 5 OUTLETS, REC LIGHTS, REC OUTLETS, PATIO LIGHTS, PATIO OUTLETS, HEATING 1, HEATING 2, AIR COND 1, AIR COND 2, WATER HEATER 1, WATER HEATER 2, WASHER, DRYER, OUTSIDE OUTLETS, ATTIC LIGHTS, ATTIC OUTLETS, BASEM'T LIGHTS, BASEM'T OUTLETS, UTILITY LIGHTS, UTILITY OUTLETS, DRIVEWAY LIGHTS, POOL GFI, POOL LIGHTS, POOL HEATING, SHED LIGHTS, SHED OUTLETS, ENTRY LIGHTS, ENTRY OUTLETS, GARAGE LIGHTS, GARAGE OUTLETS, SUNR'M LIGHTS, SUNR'M OUTLETS.

Specifications and Ordering Information for 3M™ ScotchCode™ Write-On Wire Marker Books SWB



Product Number	UPC (054007-)	Labels Per Book	Write-On Area		Marker Size		Recommended Wire O.D.	Inner Unit Pack	Min. Order Case Qty.
			W	H	W	L			
SWB-1	49904	180	0.5" (13 mm)	0.5" (13 mm)	0.5" (13 mm)	1.5" (28 mm)	0.16 x 0.31" (4 x 8 mm)	1/bag	5
SWB-2	49905	120	0.75" (19 mm)	0.75" (19 mm)	0.75" (19 mm)	1.75" (44 mm)	0.24 x 0.31" (6 x 8 mm)	1/bag	5
SWB-3	49906	60	1.0" (25 mm)	1.0" (25 mm)	1.0" (25 mm)	2.85" (72 mm)	0.32 x 0.58" (8 x 15 mm)	1/bag	5
SWB-4	49907	30	1.0" (25 mm)	1.0" (25 mm)	1.0" (25 mm)	5.0" (127 mm)	0.32 x 1.55" (8 x 39 mm)	1/bag	5

Specifications and Ordering Information for 3M™ ScotchCode™ Marker Pens SMP

Product Number	UPC (054007-)	Ink Color	Inner Unit Pack	Case Qty.
SMP-B	09963	Black	10/box	50

Leave your
mark in many
ways



Aerosols

Spray Adhesives	184
Insulating Sprays	186
Contact Cleaners	186
Packaging Adhesives	187
3M™ Novec™ Aerosol Cleaners	188



3M offers a full line of convenient push-button aerosol worksavers for your electrical coating and maintenance needs. Just a touch of the finger is all it takes to clean, degrease or make equipment work like new. Everything you need comes from 3M in convenient, economical and easy-to-store cans. They're fast and easy to use.

Big results
come in
small cans



Spray Adhesives

3M™ Aerosol Adhesives are based on 3M pioneering technology. These aerosol adhesives are formulated for industrial performance requirements.

3M™ Spray Adhesive 72 Blue

3M Pressure Sensitive Adhesive 72 Blue is a repositionable adhesive with aggressive tack and low soak-in. Use it for bonding polyethylene film and foam, carpet, pipe insulation lap, and for temporarily positioning and holding many fabrics and papers. It has precise spray control with a wide spray pattern.

3M™ Spray Adhesive Fast Foam 74 Clear

3M Foam Fast Spray Adhesive 74 Clear gives fast tack with foam-tearing strength and a soft, non-dimpling glue line. Use it for general upholstery foam bonding, to bond small foam pieces together to save foam or to form foam shapes by knife-edge bonding, boxing and edge turning. It attaches foam to metal and bonds most fabrics to aircraft interiors, speakers and office partitions. It has a non-misting, precise spray pattern.

3M™ Repositionable Spray Adhesive 75

3M Repositionable Spray Adhesive 75 is a clean “tape-like” adhesive that adheres in seconds, yet permits material to be repositioned. It resists bleeding, staining and wrinkling plus has a smooth glue line. Use it to hold badges during stitching, patterns prior to cutting, T-shirts during silk-screening and to hold paper masking in place.



3M™ Aerosol Family of Products

3M™ High Tack Spray Adhesive 76

3M High Tack Spray Adhesive 76 is a strong, one-surface adhesive with high temperature resistance. It has non-misting, precise spray control and does not cavitate expanded polystyrene foam. It can be used to bond carpet, door skins and fabric in van conversions; insulation in aircraft interiors and specialty cabinets; and to attach nameplates, pool table fabrics, swimming pool liners and pipe insulation.

PRODUCT REFERRAL GENERATOR

Lubricants pg. 191
Packaging Adhesives..... pg. 187

3M™ Spray Adhesive Super 77

3M Spray Adhesive Super 77 has high coverage, fast, aggressive tack, and a long-bonding range. It meets performance requirements of MMM-A-1058A. Spray Adhesive Super 77 is versatile — it securely bonds most lightweight materials, plus it has low soak-in for long-lasting bonds. It is excellent for jobs in display and furniture — it bonds thin decorative film, foils and fabrics. It bonds gaskets in water pumps and attaches insulation to sheet metal. It attaches wiring diagrams and labels. It is a very versatile adhesive.

3M™ Contact Neoprene® Adhesive 80

3M Contact Neoprene Adhesive 80 is plasticizer resistant and high temperature resistant to 200°F (93°C). It is fast drying and fast bonding—a durable, high strength

adhesive. Neoprene Contact Adhesive 80 meets physical requirements of MIL-A-24179A and MMM-A-130B, and can be used for all types of rubber bonding except EPDM. It bonds most supported vinyl and leather. It adheres stainless steel panels, stiffeners, metal kick plates, and most plastics, laminates and wood products.

3M™ Hi-Strength Adhesive 90

3M Hi-Strength Adhesive 90 has high contact strength and a one-minute dry time under most conditions. Its high temperature resistance meets performance requirements of MMM-A-130B. Use Hi-Strength Adhesive 90 for bonding decorative laminate to tables, cabinets and shelving; kick plates to desks; and plastic sign lettering to wood. It adheres polyethylene and polypropylene to wood, metal and more.

Specifications for 3M™ Spray Adhesives

Product Number	Bond Type	Bonding Time	Spray Width	Spray Pattern	Color	Temperature Resistance	Coverage
72	Temporary or Permanent	One side – 8 hours; two sides – 7 days	3 to 3.5"	Controlled Lace	Blue	120°F (48°C)	100 sq. ft. (9,29 m ²)
74	Permanent	One side – not recommended; two sides – 15 minutes	1 to 3", variable	Lace	Light Orange	120°F (48°C)	269 sq. ft. (24,99 m ²)
75	Repositionable	One side – 1 hour; two sides – 3 hours	1.5"	Particle	Clear	120°F (48°C)	100 sq. ft. (9,29 m ²)
76	Permanent	One side – 10 minutes; two sides – 30 minutes	1 to 3", variable	Controlled Lace	Translucent	160°F (71°C)	100 sq. ft. (9,29 m ²)
Super 77	Temporary or Permanent	One side – 15 minutes; two sides – 30 minutes	1 to 3", variable	Particle	Nearly Clear	110°F (43°C)	77 – 220 sq. ft. (7,15 – 20,44 m ²)
80	Permanent	One side – not recommended; two sides – 60 minutes	3 to 5"	Lace	Yellow	200°F (93°C)	74 sq. ft. (6,87 m ²)
90	Permanent	One side – not recommended; two sides – 15 minutes	1 to 3", variable	Controlled Lace	Translucent	160°F (71°C)	100 sq. ft. (9,29 m ²)

Ordering Information for 3M™ Spray Adhesives

Product Number	UPC (021200-)	Description	Can Size	Minimum Order Case Qty.
72	30025	Pressure Sensitive Adhesive	24 fl. oz. (710 ml)	12
74	82242	Foam Fast Adhesive	24 fl. oz. (710 ml)	12
75	30067	Repositionable Adhesive	16 fl. oz. (473 ml)	12
76	30026	High Tack Adhesive	24 fl. oz. (710 ml)	12
Super 77	21210	Spray Adhesive	24 fl. oz. (710 ml)	12
80	82618	Neoprene® Contact Adhesive	24 fl. oz. (710 ml)	6
90	30023	High Strength Adhesive	24 fl. oz. (710 ml)	12

Insulating Sprays

3M™ Scotch™ Insulating Sprays 1601 and 1602

Scotch Insulating Sprays 1601 and 1602 are electrical grade, fast drying sealers and insulators in a pressurized can. These sealers are designed to protect surfaces against weather, moisture, corrosion, oil, alkalis and acids. The sprays can afford easy access to hard-to-reach spots.

Specifications and Ordering Information for 3M™ Insulating Sprays

Product Number	UPC (054007-)	Spray Color	Contents Volume	Contents Weight	Can Size	Minimum Order Case Qty.
1601	50342	Clear	15.76 fl. oz. (466 ml)	12 oz. (340 gm)	16 fl. oz. (473 ml)	12
1602	50343	Red	15.13 fl. oz. (447 ml)	12 oz. (340 gm)	16 fl. oz. (473 ml)	12

Contact Cleaners

3M™ General Purpose Contact Cleaner 16-101

3M General Purpose Contact Cleaner 16-101 is an HCFC/ alcohol-based solvent formulated to remove light oils and other contaminants from electrical equipment.

3M™ Quick Drying Contact Cleaner 16-102

3M Quick Drying Contact Cleaner 16-102 is a petroleum distillate/alcohol-based solvent formulated to remove soil and other contaminants from electrical equipment.

Specifications and Ordering Information for 3M™ Contact Cleaners

Product Number	UPC (054007-)	Description	Minimum Order Case Qty.
16-101	42817	General Purpose Contact Cleaner	12
16-102	42818	Quick Drying Contact Cleaner	12

Packaging Adhesives

3M™ Shipping-Mate™ Labeling Adhesive

3M Shipping-Mate Labeling Adhesive is a high performance formulation that sticks to many surfaces where other adhesives or gummed labels fail. It is fast tacking, holds labels to nearly any surface, and is moisture resistant. Labeling adhesive leaves no residual tack. Labels adhered with Shipping-Mate Labeling Adhesive remain securely attached for months. Adhesive is clear in color.



3M™ Shipping-Mate™ Labeling Adhesive

3M™ Shipping-Mate™ Case Sealing Adhesive

Save time and money by resealing cartons that come unglued or that have to be opened and resealed with 3M Shipping-Mate Case Sealing Adhesive. Convenient for shipping room carton closure and warehouse reclosure after inspection, the case sealing adhesive has a ten-second holding strength with carton-tearing strength in 5 minutes. This product is temperature resistant to 160°F (71°C).



3M™ Shipping-Mate™ Case Sealing Adhesive

Specifications and Ordering Information for 3M™ Packaging Adhesives

Product Number	UPC (021200-)	Description	Can Size	Minimum Order Case Qty.
Labeling Adhesive	76167	Spray for adhering labels	24 fl. oz. (680 ml)	12
Case Sealing Adhesive	30024	Spray to seal packaging	24 fl. oz. (680 ml)	12

3M™ Novec™ Aerosol Cleaners

- Non-flammable
- Low toxicity
- Non-ozone depleting
- Non-corrosive
- Fast drying, virtually no residue
- Contains no HCFCs, HFCs, nPB or HAPs

3M™ Novec™ Aerosol Cleaners give you a new way to meet today's electronics and precision cleaning challenges—combining fast, effective cleaning performance with a wide margin of safety for workers and a favorable environmental profile. They offer a responsible alternative to HCFC 141b-based cleaners.

3M™ Novec™ Aerosol Cleaners are RoHS Compliant.

3M™ Novec™ Contact Cleaner



3M™ Novec™ Contact Cleaner

Novec Contact Cleaner effectively removes light oils, greases, silicones, dust and particulates from sensitive electronic and electrical equipment. It is compatible with plastics and can be used on energized equipment or components.

3M™ Novec™ Electronic Degreaser



3M™ Novec™ Electronic Degreaser

Novec Electronic Degreaser effectively removes oils, greases and handling soils from electric motors, electrical equipment, precision devices and other electro-mechanical or sensitive devices. Industrial strength cleaner. Test on plastics before using—may damage acrylics, polycarbonates, ABS and PS.



3M™ Novec™ Aerosol Cleaners

3M™ Novec™ Flux Remover



3M™ Novec™ Flux Remover

Novec Flux Remover removes rosin solder fluxes, waxes and similar contaminants. It is also effective in removing hydrocarbon, silicone and fluorochemical oils and greases from devices such as electric motors, generators, precision devices and other electro-mechanical or sensitive equipment. Test on plastics before using—may damage acrylics, polycarbonates, ABS and PS.

Specifications and Ordering Information for 3M™ Novec™ Aerosol Cleaners

Product	UPC (051135-)	Can Size	Minimum Order Case Qty.
Contact Cleaner	71699	12 fl. oz. (340 ml)	6
Electronic Degreaser	71698	12 fl. oz. (340 ml)	6
Flux Remover	71697	12 fl. oz. (340 ml)	6

AEROSOLS • 3M™ Novec™ Aerosol Cleaners

Lubricants and Coatings

Lubricants and Cable Looseners	192
Coatings and Protectants	196



Each of the Wire Pulling Lubricants from 3M is designed for specific applications, so you can choose the right lubricant for the job at hand. You can count on 3M reliability through high pulling forces, extreme temperature changes, wet weather and the damaging effects of time.

The line of coatings and protectants from 3M protects surfaces against moisture, corrosion and other contaminants.

FREQUENTLY ASKED QUESTIONS

For pulling wires, which type of lubricant should be used—a wax or a water-based gel?

Regular (WL) water-based lubricant is preferred in ordinary applications. Wax (WLX) is best when water in conduit is suspected or higher storage/application temperature is expected, up to 194°F (90°C).

3M™ Lubricants and Cable Looseners

3M™ Wire Pulling Lubricant Gel



3M Wire Pulling Lubricant Gel is a water-soluble, translucent white gel that is easy to handle and apply to wire and cable

without runs or drips. The lubricant produces a low coefficient of friction that lessens the chance of wire damage from high pulling forces. Not only does Wire Pulling Lubricant Gel make wire pulling jobs smoother and safer, it also wipes off the cable quickly and cleanly before terminating or splicing. The consistent gel does not liquefy, or separate with hot or cold aging. It stays thick, smooth and ready to apply.

3M™ Wire Pulling Lubricant Wax/Gel



3M Wire Pulling Lubricant Wax/Gel can be used and stored in temperatures as high as 194°F (90°C), making

it the choice for hot weather applications. The thick, consistent lubricant does not liquefy or separate with hot aging; it scoops and applies easily to wire and cable without runs or drips in hot temperatures and will not evaporate too soon after pulls. The lubricant's low friction coefficient lessens the chance of wire damage from high pulling forces, wipes off the cable quickly and cleanly and leaves less residue in the conduit to block future pulls or prevent removal. Because Wire Pulling Lubricant Wax/Gel can be immersed in water for 30 minutes with minimal weight loss, it is also the choice for wet weather applications.

3M™ Wire Pulling Lubricant Communications



3M Wire Pulling Lubricant Communications is a slow drying, water-based liquid lubricant formulated for

lightguide cable pulling. The lubricant produces a low coefficient of friction that lessens the chance of lightguide cable damage from high pulling forces. Wire Pulling Lubricant Communications provides maximum tension reduction for long fiber optic pulls, multiple bend pulls and pulls in hot environments. It will not stress crack low-density polyethylene and is compatible with a broad range of cable jackets.

3M™ Wire Pulling Lubricant Wintergrade



3M Wire Pulling Lubricant Wintergrade can be used and stored in temperatures as low as 10°F (-12°C), making it the choice for cold weather

applications. The thick lubricant remains easy to scoop and apply to wire and cable without runs or drips in both warm and cold temperatures. The lubricant produces a low coefficient of friction that lessens the chance of wire damage from high pulling forces. It wipes off the cable quickly and cleanly before terminating or splicing common wire and cable jackets.

3M™ Cable Loosener

3M Cable Loosener is a white, water-based, general purpose dissolver/lubricant designed to free lodged cables by softening binding materials such as wax, rust, soap, dirt, adhesive, residue and bitumen. It is a thick, pourable liquid, which can be conveniently loaded directly into the conduit. After dissolving the binding agents and aiding the cable in breaking free, Cable Loosener also provides a lubricating film that helps remove the cable from the conduit, leaving the empty conduit undamaged and ready for re-use after cleaning and drying.

3M™ 5-Way Penetrant



3M 5-Way Penetrant is designed to penetrate, lubricate, de-moisturize and protect electrical apparatus. It provides protection against electrical failures caused by moisture and corrosion.

3M 5-Way Penetrant protects component products such as switches, relays, batteries, motors and generators and keeps them highly efficient even in humid environments. Very low surface tension causes 3M 5-Way Penetrant to force its way under water on metal surfaces, displacing moisture.

At its best
when conditions
are worst



PRODUCT REFERRAL GENERATOR

Connecting	
Spring Connectors.....	pg. 32
Insulation Displacement Connectors.....	pg. 38
Identifying	
Wire Markers.....	pg. 173
Terminating	
Terminals.....	pg. 47
Fastening	
Cable Ties.....	pg. 165



LUBRICANTS AND CABLE LOOSENERS

FEATURES	ADVANTAGES	BENEFITS
3M™ WIRE PULLING LUBRICANT GEL WL		
Temperature stable	Lube is not wasted	Saves money
Thick, non-runny gel	Faster and neater application. Less waste	Saves money
Colorless and non-staining	Faster and easier clean-up	Saves time
Low coefficient of friction	Less wire damage and equipment wear	Safety
Low residue (<3.5% solids)	Easier cable replacement during refurbishment	Saves time
UL Listed. Broadly compatible with wire and cable jackets	Lubricant suitable for multiple uses — electrical, co-ax, high voltage. Minimizes inventory investment	Saves money
3M™ WIRE PULLING LUBRICANT COMMUNICATIONS WLC		
Pourable	Coats evenly	Easy to use
Low residue	Less wire damage and equipment wear	Saves money
Non-staining and slow drying	Faster and easier clean-up	Saves time
Compatible with fiber optic, telephone and communications cable	Does not stress crack polyethylene	Safety
Does not separate at high or subfreezing temperatures	No waste due to phase separation	Saves money
3M™ WIRE PULLING LUBRICANT WAX/GEL WLX		
5.3% solid residue	Easier cable replacement during refurbishment	Saves time
Heat stable at 194°F (90°C) for 24 hours	No ruined, runny lube, low evaporation rate	Saves money
30 minutes immersed in water with minimal weight loss	Easier pulling in wet conditions	Easy to use
3M™ WIRE PULLING LUBRICANT WINTERGRADE WLW		
Temperature stable	Lube is not wasted	Saves money
Thick, non-runny gel	Faster and neater application. Less waste	Saves money
Non-staining	Faster and easier clean-up	Saves time
Low coefficient of friction	Less wire damage and equipment wear	Safety
Low residue (<3.5% solids)	Easier cable replacement during refurbishment	Saves time
Broadly compatible with wire and cable jackets	Lubricant suitable for multiple uses — electrical, co-ax, high voltage. Minimizes inventory investment	Saves money
3M™ WLW CABLE LOOSENER CL		
Dissolves binding materials to free lodged cables	Eliminates cut-ins	Saves money Saves time
Acts as both a dissolver and a lubricant	Eliminates the need to use two separate products	Saves money
Thick, pourable liquid	Easily loaded into conduit	Easy to use Saves time

Specifications and Ordering Information for 3M™ Lubricants

Product Number	UPC (054007-)	Size	Weight (lbs./case)	Case Qty.
SILICONE LUBRICANT				
Silicone Lubricant	85822*	24 fl. oz. (710 ml)	13.25 oz., can	12
5-WAY PENETRANT				
5-Way Penetrant	21305*	24 fl. oz. (710 ml)	17 oz. (481 gm)	12
WIRE PULLING LUBRICANT GEL				
WL-QT	50622	1-quart bottle, gel	28.0 (12,7 kgs)	12
WL-1	50623	1-gallon pail, gel	35.0 (15,9 kgs)	4
WL-5	50624	5-gallon pail, gel	42.0 (19,05 kgs)	1
WL-55	50625	55-gallon drum, gel	460.0 (208,65 kgs)	1
WIRE PULLING LUBRICANT COMMUNICATION				
WLC-QT	41783	1-quart bottle, communications	28.0 (12,7 kgs)	12
WLC-1	41784	1-gallon pail, communications	35.0 (15,9 kgs)	4
WLC-5	41785	5-gallon pail, communications	42.0 (19,05 kgs)	1
WLC-55	41786	55-gallon drum, communications	460.0 (208,65 kgs)	1
WIRE PULLING LUBRICANT WAX				
WLX-QT	41742	1-quart bottle, wax	28.0 (12,7 kgs)	12
WLX-1	41743	1-gallon pail, wax	35.0 (15,9 kgs)	4
WLX-5	41744	5-gallon pail, wax	42.0 (19,05 kgs)	1
WLX-55	41745	55-gallon drum, wax	460.0 (208,65 kgs)	1
WIRE PULLING LUBRICANT WINTERGRADE				
WLW-QT	41746	1-quart bottle, Wintergrade	28.0 (12,7 kgs)	12
WLW-1	41747	1-gallon pail, Wintergrade	7.4 (3,36 kgs)	4
WLW-5	41748	5-gallon pail, Wintergrade	42.0 (19,05 kgs)	1
WIRE PULLING CABLE LOOSENER				
CL-QT	42833	Cable loosener	quart	12
CL-1	42834	Cable loosener	1-gallon	4
CL-5	42835	Cable loosener	5-gallon pail	1

* UPC prefix 021200-

Wire Pulling Lubricant  

Temperature use range 20°F-110°F

WLC 

WLX 

Use above 32°F

Temperature storage range 10°F-194°F

WLW 

Temperature use range 10°F-110°F

3M™ Coatings and Protectants

3M™ Scotchkote™ Electrical Coating



3M Scotchkote Electrical Coating provides vinyl tapes with an extra oil, moisture and corrosion-resistant layer of flexible coating for problem areas. A fast drying sealant and bonding compound, the coating is provided in a brush top 16 oz. can

for quick and easy application, can containing 15 fl. oz. (0.44 L) of coating. 4 fl. oz. is also available.

3M™ Zinc Spray 16-501



3M Zinc Spray 16-501 provides an effective way to inhibit rust and corrosion with 97% pure zinc. Used for generation,

transmission and distribution equipment including towers, transformers, light standards and other metal and galvanized surfaces, this convenient aerosol leaves a barrier coating similar to hot-dipped galvanized surfaces. Noted for its quick drying capability, Zinc Spray 16-501 preserves base metal, even when scratched or chafed. This product is extremely flammable. Read and observe warnings on the label. Not for use on energized equipment.

SPECIAL DIRECTIONS FOR 16-501 ZINC SPRAY USE

1. Do not shake can up and down.
2. Turn can upside down. Hit sides while rotating can in 1/4 turns until ball breaks loose.
3. Hold can and swing in a circle until ball travels freely.
4. Repeat after each minute of use.
5. Hold can 8 to 10 inches from surface and apply evenly.
6. To prevent clogging, clear the valve by holding can upside down and spraying until only clear gas comes out.

Specifications and Ordering Information for 3M™ Scotchkote™ Electrical Coating

Product Number	UPC (054007-)	Description	Can Size	Minimum Order Case Qty.
Scotchkote Electrical Coating 15 oz.	14853	Flexible, fast drying sealant and bonding compound	15 fl. oz. (0.44 L)	10
Scotchkote Electrical Coating 4 oz.	43906	Flexible, fast drying sealant and bonding compound	4 fl. oz.	10
16-501	42828	Zinc-based corrosion protection	16 fl. oz.	12

Fire Protection Products

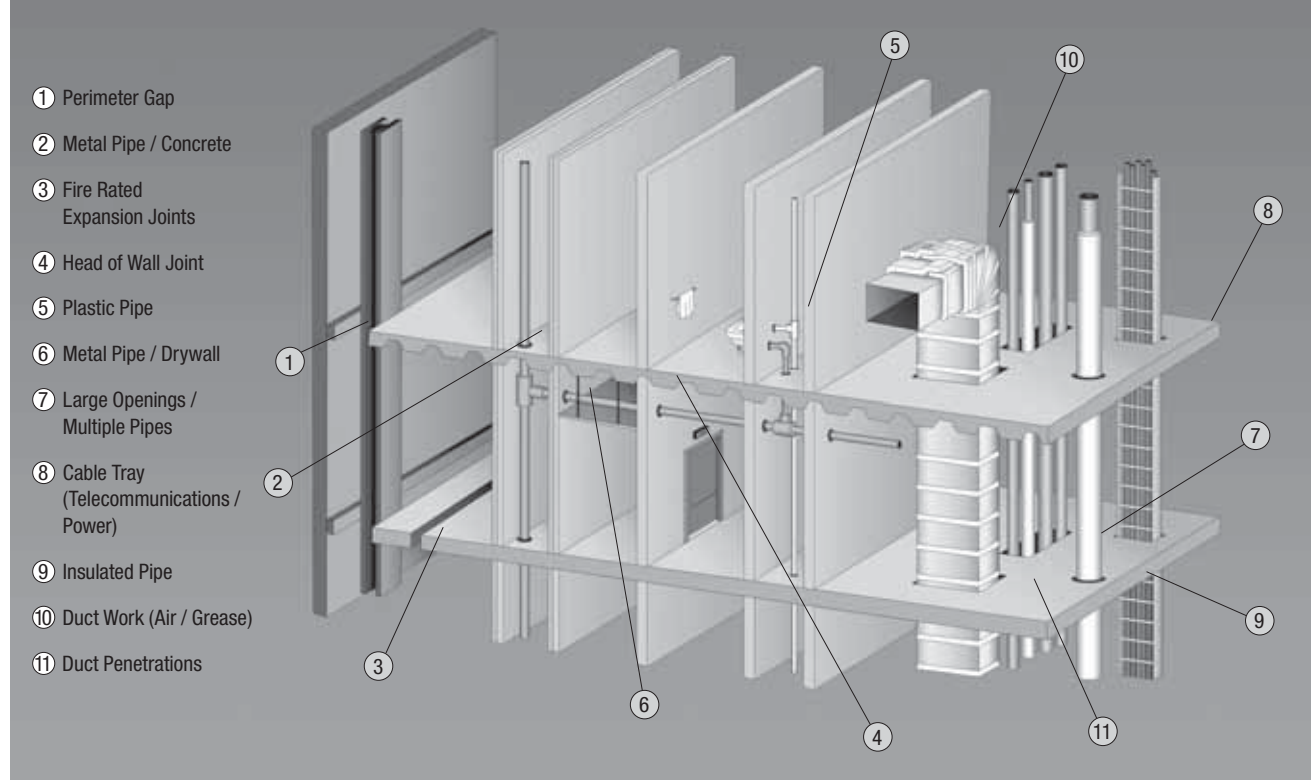
Sealants & Packing Material	198
Pillows & Putty	201
Pass-Through & Cast-In Devices	203
Collars & Wrapstrips	207
Sheets & Mats	209
Miscellaneous	211



The complete line of 3M fire protection products helps prevent fire, smoke, toxic fumes and moisture from passing through penetrations in fire-rated walls and floors. These easy-to-install products are suitable for a wide variety of

firestop applications, including plastic pipes, metal pipes, HVAC ductwork, cables, construction gaps, grease ducts, wall tops and control joints.

Typical Firestop Applications



Sealants and Packing Material

3M™ Fire Barrier Sealants



All 3M Fire Barrier Sealants have either intumescent, endothermic or ablative technologies designed to provide a tight and dependable seal against fire, smoke, toxic fumes and moisture. 3M intumescent sealants expand up to 10 times their original size when exposed to temperatures over 300°F (149°C). This intumescent action forms a strong, insulating char that seals the opening for up to four hours when exposed to extreme heat.

Fire barrier sealants are ideal for new construction or retrofit in a wide variety of applications such as metal, plastic, insulated and glass pipe, construction gaps, dynamic joints, HVAC ductwork and insulated cable applications.

All come in convenient job-size packages and install easily with a standard caulking gun, pneumatic pumping equipment or putty knife.

3M™ Fire Barrier Sealant CP 25WB+



3M Fire Barrier Sealant CP 25WB+ is our premium, intumescent latex-based sealant offering outstanding fire performance plus a non-halogen formula.

- Provides up to 4 hour rating of UL systems tested
- Water base—easy cleanup, no special handling, routine disposal
- Intumescent—expands when heated to choke and seal around items consumed by fire

- Endothermic—releases chemically bound water to cool exposed surfaces
- Fast-dry—tack-free in approximately 10-15 minutes
- Red color for easy inspection



3M™ Fire Barrier Sealant IC 15WB+



A low-cost, latex based, intumescent smoke and firestopping sealant for wall and floor penetrations. Easy-to-handle formulation that bonds to concrete, metal, wood and cable jacketing. Dries to a firm, rubber-like solid. Provides up to three hours of rating of UL systems tested.

- Water base—easy cleanup, no special handling, routine disposal
- Intumescent—expands when heated to choke and seal around items consumed by fire
- Endothermic—releases chemically bound water to cool exposed surfaces
- Fast-dry—tack-free in approximately 10-15 minutes

3M™ FireDam™ Acrylic Latex Sealant 150+



FireDam Acrylic Latex Sealant 150+ is an acrylic latex sealant used to firestop metal pipes and cables through concrete or gypsum, and for use in dynamic head-of-wall systems.

- Approved for many metal pipe through penetration applications
- Easily spread to a smooth finished surface
- Low shrinkage
- Available in blue and limestone colors



3M™ Fire Block Sealant FB 136



Lightweight, cementitious sealant with excellent adhesion—bonds to concrete, metals, wood, plastic and cable jacketing.

- Easy cleanup with water
 - No special handling, routine disposal
 - Thixotropic: will not sag or run in vertical or overhead applications
 - Halogen-free
 - Tack free in approximately 15 minutes
 - Gray color
- High caulk rate
 - Low VOC
 - Meets ASTM E136 test standard

3M™ Fire Barrier Water Tight Silicone Sealant 1000 NS



3M Fire Barrier Water Tight Silicone Sealant 1000 NS is a non-slumping silicone ideal for use on fire-rated floor and wall penetrations and joints.

Meets the UL Water Leakage Test – Class 1 Requirements.

- Excellent weatherability
- Ideal for fast-track construction
- Excellent adhesion
- Easy application with standard or bulk caulking guns or pneumatic pumping equipment
- Cures upon exposure to atmospheric humidity
- Reenterable and repairable



3M™ Fire Barrier Water Tight Silicone Sealant 3000 WT



3M Fire Barrier Water Tight Silicone Sealant 3000 WT is an intumescent silicone that expands around combustible and non-combustible penetrating items to maintain a tight barrier against fire, smoke and noxious gas.

- Meets the UL Water Leakage Test – Class 1 Requirements
- Excellent weatherability
- Ideal for fast-track construction
- Excellent adhesion
- Easy application with standard or bulk caulking guns or pneumatic pumping equipment
- Cures upon exposure to atmospheric humidity

3M™ Fire Barrier Water Tight Silicone Sealant 1003 SL

3M Fire Barrier Water Tight Silicone Sealant 1003 SL is a self-leveling silicone ideal for fire-rated floor penetrations and joints.

- Meets the UL Water Leakage Test – Class 1 Requirements
- Excellent weatherability
- Ideal for fast-track construction
- Excellent adhesion
- Easy application with standard or bulk caulking guns or pneumatic pumping equipment
- Cures upon exposure to atmospheric humidity
- Reenterable and repairable



3M™ Fire Barrier Packing Material PM 4



A light-weight packing material approved for use in all of 3M's UL Listed through-penetration firestop systems. The 20-foot roll is convenient to transport and features quick and easy hand-tear dispensing.

3M Fire Barrier Packing Material is ideal for use around metallic, nonmetallic, insulated pipe, HVAC and power and communication cable penetrants—a long-awaited alternative to mineral wool, fiberglass or backer rod.

- Approved for use in up to 4 hour firestop systems
- Convenient, hand-tear dispensing
- For almost any through-penetration firestop project
- Approved for use in all of 3M's UL Listed through-penetration firestop systems
- Less irritating to skin than competitive products



Specifications and Ordering Information for 3M Fire Barrier Sealants & Packing Material

Product	UPC (051115-)	Description	Size	Case Qty.
FIRE BARRIER SEALANTS				
CP 25WB+ Cartridge (10.1 oz.)	11638-4	Intumescent Sealant	10.1 fl. oz. (298 ml)	12 each
CP 25WB+ Sausage (20 oz.)	11642-1	Intumescent Sealant	20 fl. oz. (591 ml)	10 each
CP 25WB+ Cartridge (27 oz.)	11641-4	Intumescent Sealant	27 fl. oz. (798 ml)	6 each
CP 25WB+ Pail (2 Gal.)	11639-1	Intumescent Sealant	2 gal. (256 fl. oz.)	1 pail
CP 25WB+ Pail (5 Gal.)	11640-7	Intumescent Sealant	5 gal. (640 fl. oz.)	1 pail
IC 15WB+ Cartridge (10.1 oz.)	16557-3	Intumescent Sealant	10.1 fl. oz. (298 ml)	12 each
IC 15WB+ (20 oz.)	16560-3	Intumescent Sealant	20 fl. oz. (591 ml)	10 each
IC 15WB+ (27 oz.)	16559-7	Intumescent Sealant	27 fl. oz. (798 ml)	6 each
IC 15WB+ Pail (4.5 gal.)	16558-0	Intumescent Sealant	4.5 gal. (576 fl. oz.)	1 pail
FireDam 150+ (10.1 oz.) Blue	11574-5	Water Based Sealant	10.1 fl. oz. (298 ml)	12 cartridges
FireDam 150+ (20 oz.) Blue	11634-6	Water Based Sealant	20 fl. oz. (591 ml)	12 each
FireDam 150+ (28.5 oz.) Blue	11602-5	Water Based Sealant	28.5 fl. oz. (842 ml)	6 cartridges
FireDam 150+ (4.5 gal.) Blue	11575-7	Water Based Sealant	4.5 gal. (576 fl. oz.)	1 pail
FireDam 150+ (10.1 oz.) Limestone	16564-1	Water Based Sealant	10.1 fl. oz. (298 ml)	12 cartridges
FireDam 150+ (20 oz.) Limestone	16567-2	Water Based Sealant	20 fl. oz. (591 ml)	12 each
FireDam 150+ (28.5 oz.) Limestone	16566-5	Water Based Sealant	28.5 fl. oz. (842 ml)	6 cartridges
FireDam 150+ (4.5 gal.) Limestone	16565-8	Water Based Sealant	4.5 gal. (576 fl. oz.)	1 pail
FB 136+ Cartridge (10.1 oz.)	1659-1	Water Based Sealant	10.1 fl. oz. (298 ml)	12 each
WATER TIGHT FIRE BARRIER SEALANTS				
3000 WT (10.1 oz.)	16594	Water Tight Sealant Intumescent	4.5 gal. (576 fl. oz.)	1 pail
3000 WT (4.5 gal.)	16593	Water Tight Sealant Intumescent	10.1 fl. oz. (298 ml)	12 cartridges
1000 NS (10.1 oz.)	11537	Water Tight Sealant Non Slump	4.5 gal. (576 fl. oz.)	1 cartridge
1000 NS (4.5 gal.)	11535-6	Water Tight Sealant Non Slump	10.1 fl. oz. (298 ml)	12 cartridges
1003 SL (10.1 oz.)	11540	Water Tight Sealant Self-Leveling	4.5 gal. (576 fl. oz.)	1 cartridge
1003 SL (4.5 gal.)	11538-7	Water Tight Sealant Self-Leveling	10.1 fl. oz. (298 ml)	12 cartridges
3000 WT (20 oz.)	18788-9	Water Tight Sealant Intumescent	20 oz.	12 each
1000 NS (20 oz.)	18790-2	Water Tight Sealant Non Slump	20 oz.	12 each
1003 SL (20 oz.)	18789-6	Water Tight Sealant Self-Leveling	20 oz.	12 each
PACKING MATERIAL				
PM4-Bulk	18764-3	Hand-Tear Dispensed Packing Material	0.5" x 4" x 20.5 ft. (0.28 cu. ft.)	5 rolls

Pillows and Putty

3M™ Fire Barrier Self-Locking Pillows



Self-contained, highly intumescent pillows are designed to firestop a wide variety of through-penetrations including cable trays, conduit and blank openings. Interlocking strips hold pillows securely together yet release easily for retrofit or reuse—just remove and replace pillows as needed.

- No wire mesh reduces safety issues
- Easy to install, easy to remove and reuse
- No cutting and no mess—just lock pillows together, compress and place (use 3M™ Fire Barrier Moldable Putty+ around edges to ensure proper seal)
- No graphite
- Excellent aging properties
- Available in 2" x 4" x 9" (small), 2" x 6" x 9" (medium) and 3" x 6" x 9" (large) pillow sizes
- Provides up to 3-hour UL Listed systems (in up to a 540 square inch opening)

3M™ Fire Barrier Pillows

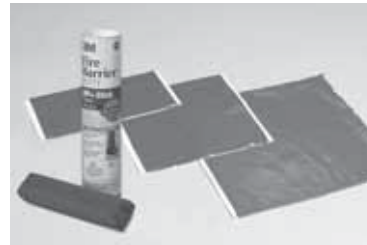


Stackable and conformable firestop pillows for new and retrofit projects.

- No wire mesh or graphite
- Excellent aging properties

- Available in 2" x 4" x 9" (small), 2" x 6" x 9" (medium) and 3" x 6" x 9" (large) pillow sizes
- Provides up to 3-hour UL Listed systems (in up to a 540 square inch opening)

3M™ Fire Barrier Moldable Putty+



3M Fire Barrier Moldable Putty+ is designed for use as a one-part, 100% solids intumescent firestop that restores the integrity of fire-rated building construction.

- Ideal for construction gaps, cable, insulated pipe, electrical conduit and metal pipe
- Designed to provide up to a 4-hour fire rating
- UL-classified for telecommunications applications (interduct, fiber optic and cables)
- Remains pliable and flexible
- Won't dry out or crumble
- Convenient pad and stix form
- Non-halogen formula
- Reenterable
- Adheres to all common building surfaces including metal and plastic electrical boxes
- Available in both 4S and 5S electrical box sizes
- Provides draft and cold smoke seal even before temperature increases
- Intumescent and expands to form a hard char that prevents the transmission of hot gases and fire
- Great for building maintenance applications

Specifications and Ordering Information for 3M™ Fire Barrier Pillows and Putty

Product	UPC (051115-)	Size	Volume	Case Qty.
FIRE BARRIER PILLOWS				
FB 249 Pillow	16508-5	1/8" x 4" x 8" (3,2 x 102 x 203 mm)	N/A	24
FB 269 Pillow	16531-3	2" x 6" x 9"	N/A	16
FB 369 Pillow	16532-0	3" x 6" x 9"	N/A	20
FIRE BARRIER SELF-LOCKING PILLOWS				
SLP-Small	16578-3	2" x 4" x 9"	N/A	24
SLP-Medium	16579-0	2" x 6" x 9"	N/A	16
SLP-Large	16580-6	3" x 6" x 9"	N/A	20
MOLDABLE PUTTY PADS AND STIX				
MPP+ 4" x 8"	16508-5	1/8" x 4" x 8" (3,2 x 102 x 203 mm)	4 in. ³	100 each
MPP+ 7" x 7"	16509-2	1/8" x 7" x 7" (3,2 x 178 x 178 mm)	6.12 in. ³	20 each
MPP+ 9.5" x 9.5"	16510-8	1/8" x 9.5" x 9.5" (3,2 x 241,3 x 241,3 mm)	11.3 in. ³	20 each
MP+ Stix	16526-9	1.5" x 11" (40,6 x 279 mm)	21.2 in. ³	10 each
MP+ Stick	16561-0	1.4" x 6" (183 mm)	N/A	12 each

Put heat
in its
place

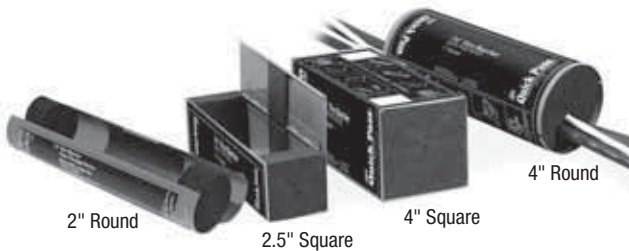


Pass-Through and Cast-In Devices

3M™ Fire Barrier Devices

Fire barrier devices offer an effective one-piece solution for the firestopping of penetrating items through rated walls and floors. During a fire, these devices intumesce to form a seal, which helps protect against the spread of fire, smoke and toxic gases. Fire barrier devices are easy to install and are designed to take the guesswork out of firestopping. 3M offers pass-through options for walls and cast-in place options for poured concrete floors. 3M Fire Barrier Devices offer a simple, caulk-free, code compliant alternative to complicated caulk systems. Plus, they have the added benefit of retrofit firestop capabilities, which means less hassles after buildings are occupied.

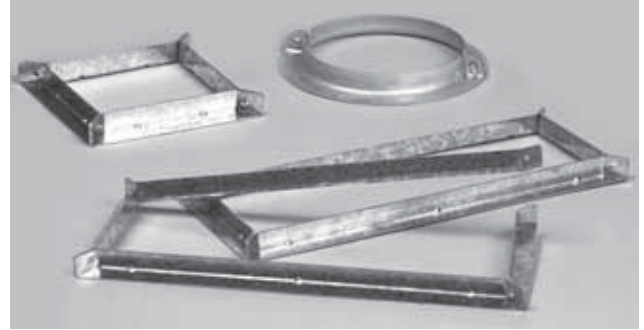
3M™ Fire Barrier Pass-Through Devices



Caulk-free code-compliant devices designed for easy installation and re-enterability—perfect for firestopping structures where electrical, data and communication cables or plumbing pipes pass through fire-rated floors and walls.

- Available in 2" round, 2 1/2" square, 4" round and 4" square sizes
- UL classified L rating, hot and cold smoke seal
- Stackable for penetrant versatility
- Hinged for easy retrofit installation around cables
- UL classified 1, 2 and 3 hour fire (F) and temperature (T) ratings

3M™ Fire Barrier Pass-Through Mounting Brackets



Mounting brackets available for wall or floor mounting of 3M Fire Barrier Pass-Through Devices:

- Single mounting bracket available for all devices
- Triplex and Sixplex mounting brackets available for square devices

Specifications and Ordering Information for 3M™ Fire Barrier Pass-Through Products

Product	Description	Case Wgt	UPC (051115-)	Unit	Case Qty.
DEVICES AND BRACKET—ROUND					
PT2RD	2" Round Device	7.80	18773-5	Each	6
PT2RMB	2" Round Mounting Brackets (Pair)	11.0	18774-2	Pair	24
PT4RD	4" Round Device	12.39	16598-6	Each	6
PT4RMB	4" Round Mounting Brackets (Pair)	10.32	18754-4	Pair	24
DEVICES AND BRACKET—SQUARE					
PT2.5SD	2.5" Square Device	7.72	16596-2	Each	6
PT2.5SMB	2.5" Square Single Mounting Brackets (Pair)	11.60	18750-6	Pair	24
PT2.5TMB	2.5" Square Triple Mounting Brackets (Pair)	19.18	18751-3	Pair	24
PT4SD	4" Square Device	13.62	16597-9	Each	6
PT4SMB	4" Square Single Mounting Brackets (Pair)	16.40	18752-0	Pair	24
PT4SSB	4" Square Stud Bracket	8.20	18780-3	Each	24
PT4TMB	4" Square Triple Mounting Brackets (Pair)	29.10	18753-7	Pair	24
PT4SSMB	4" Square Sixplex Mounting Brackets (Pair)	36.00	18777-3	Pair	6

3M™ Fire Barrier Cast-In Device



These firestop devices are designed to make firestopping through concrete easy and affordable. With models available to accommodate plastic or metallic pipe, 3M™ Fire Barrier Cast-In Devices are installed prior to the concrete pour (attaching directly to the wood forms) and can be adjusted to various concrete depths.

- Penetrating item is passed through device after the concrete cures
- Easily adjustable bodies that can be adapted to concrete height (from 2-1/2" up to 8")
- Models available for metallic or non-metallic penetrating items
- Available in 2", 3", 4" and 6" diameter by 8" height
- Provides up to a 3-hour fire rating

3M™ Fire Barrier Cast-In Metal Deck Adapter



- One-piece plastic body assembly to accommodate fluted metal decks
- Use in conjunction with 3M Fire Barrier Cast-In Devices

3M™ Fire Barrier Cast-In Device Height Adapter



- One-piece plastic body assembly allows 3M Fire Barrier Cast-In Devices to be used in up to 12" concrete thickness
- Designed to accommodate pipe sizes from 1 1/2" to 4"
- Easily snaps into place—no additional fastening required
- Available for use with 2", 3", 4" and 6" 3M Fire Barrier Cast-In Device

3M™ Fire Barrier Cast-In Tub Box Assembly



- Fastens to a 2" metallic 3M Fire Barrier Cast-In Device and creates a void for plumbing access
- Available with 2" or 3" foam insert depending on desired depth of access void
- Easily snaps into place and then attaches directly to wood forms
- Accommodates 1-1/2" and 2" pipe

Specifications and Ordering Information for 3M™ Fire Barrier Cast-In Devices

Product	Description	UPC (051115-)	Case Qty.
2PCID	2" Diameter Cast-In Device for Plastic Pipes	16536-8	12
3PCID	3" Diameter Cast-In Device for Plastic Pipes	16537-5	12
4PCID	4" Diameter Cast-In Device for Plastic Pipes	16538-2	6
6PCID	6" Diameter Cast-In Device for Plastic Pipes	16539-9	2
2MCID	2" Diameter Cast-In Device for Metal Pipes	16540-5	12
3MCID	3" Diameter Cast-In Device for Metal Pipes	16541-2	12
4MCID	4" Diameter Cast-In Device for Metal Pipes	16542-9	6
6MCID	6" Diameter Cast-In Device for Metal Pipes	16543-6	2
2MDA	2" Metal Deck Adaptor	16544-3	12
3MDA	3" Metal Deck Adaptor	16545-0	12
4MDA	4" Metal Deck Adaptor	16546-7	12
6MDA	6" Metal Deck Adapter	16547-4	12
2HA	2" Cast-In Height Adaptor for use with 2PCID and 2MCID	16548-1	12
3HA	3" Cast-In Height Adaptor for use with 2PCID and 2MCID	16549-8	12
4HA	4" Cast-In Height Adaptor for use with 2PCID and 2MCID	16550-4	12
6HA	6" Cast-In Height Adapter for use with 6PCID and 6MCID	16551-1	12
2TB	Tube Box	16552-8	6
3TB	Tube Box	16586-8	6
4AA	4" Aerator Adapter for use with 4PCID and 4MCID	16589-9	12

Collars and Wrapstrips

3M™ Fire Barrier Ultra Plastic Pipe Device



The proven technology of this fire barrier product's intumescent action quickly seals off plastic pipes in a fire, and is designed to meet up to three-hour fire and temperature ratings. For plastic pipe types and hourly

ratings, consult the current UL Fire Resistance Directory or ULC Volume 3 Fire Resistance Ratings.

- UL-classified for use on PVC, CPVC, CCPVC, ABS, CCABS, PVDF and FRPP
- Easy to install—one step
- Expands up to 25 times
- Factory-made, consistent quality
- Red in color for easy identification as a fire-rated device during inspections



- 100% solids
- One-part, organic/inorganic, fire-resistive elastomeric strip with foil on one side
- Intumescent for complete, rapid sealing during a fire
- Standard 2 in. width or optimized 1 in. width applications
- Superior, documented aging properties. Proven stability and performance for expected life of building
- Improved flexibility for easy, cost-effective installation
- Versatile—can be cut to fit irregular shapes
- Reenterable—no special tools required
- Non-flame supporting
- Red-brown color
- Applications include: telephone cable, metal pipe, plastic pipe, conduit, insulated metal pipe and cable trays
- Used to firestop up to 10 in. (254,0 mm) diameter PVC pipe
- UL-classified for use on PVC, CPVC, ABS, CCPVC, CCABS, PVDF, FRPP, PP and PB plastic pipe



3M Knoxville, IA Registered to ISO 9002 Certificate No. A1021

3M™ Fire Barrier Wrap/Strip FS-195+



This patented intumescent wrap/strip has 3M state-of-the-art through-penetration fire protection plus improved characteristics.

Firestops difficult through-penetrations such as plastic pipe, insulated pipe and cables. When exposed to heat, this flexible, rubber-like strip expands up to 10 times its original volume, forming a very hard char to prevent the migration of fire and smoke.

3M™ Fire Barrier Restricting Collar RC-1



- UL-classified for use on PVC, CPVC, ABS, CCPVC, CCABS, PVDF, PP and PB plastic pipe
- Easy installation
- 28 gauge steel
- Convenient 25 ft. (7,62 m) roll
- Required for firestopping plastic pipes larger than 4 in. (101,6 mm) in diameter



Specifications and Ordering Information for 3M™ Wraps, Collars and Plastic Pipe Devices

Product	UPC (051115-)	Style	Size	Case Qty.
WRAPS AND COLLARS				
Wrap/Strip FS-195+	07115-7	N/A	2" x 24" (50,8 x 609,6 mm)	10 each
Restricting Collar RC-1	08324-5*	N/A	2" x 25' (50,8 mm x 7,62 m)	1 each
E-FIS Intumescent Strip	11626-1	N/A	1/2" x 50'	10 each
PLASTIC PIPE DEVICES				
Ultra PPD 1.5	08378-5	Finger Tab	1-1/2" (38,1 mm)	10 each
Ultra PPD 2.0	08379-2	Finger Tab	2" (50,8 mm)	10 each
Ultra PPD 3.0	08380-8	Finger Tab	3" (76,2 mm)	10 each
Ultra PPD 4.0	08381-5	Finger Tab	4" (101,6 mm)	10 each
Ultra PPD 6	08253-5	Hose Clamp	6" (152,4 mm)	5 each
Ultra PPD 16 Fast Anchors	11530-1	Anchors	3/4" x 16" (19,05 x 406,4 mm)	400 each

* UPC prefix 054007-

Tough
insulation.
Easy
installation.



Sheets and Mats

3M™ Fire Barrier Composite Sheet CS-195+



Intumescent sheet used to firestop large openings. Designed to seal penetrations against flame spread, smoke and toxic fumes. This composite sheet has multiple applications, including blank openings, through penetrations of multiple cable, pipe ducts, buss ducts and cable trays.

- Intumescent (expands with heat) to form a hard char that tightly seals penetrations against flame spread, smoke and toxic fumes
- Multiple applications: through-penetration firestop, heat shield and firebreak protection
- Easy to install using common trade tools
- Lightweight—easy to handle, just cut and form to desired shape
- Easy to fasten—bolt punch or drill through and use self-tapping screws or anchor bolts
- Thermally conductive—allows unwanted heat buildup to escape
- Non-flame supporting
- UL-classified
- Cost-effective
- No mixing or damming—is clean to install
- Reenterable
- 100% solids
- Versatile—can be cut to fit irregular shapes



3M™ Interam™ Endothermic E-5A-4

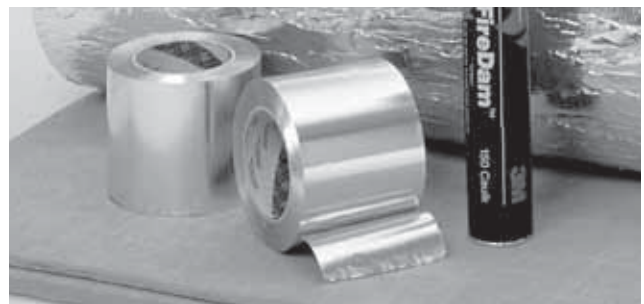


This endothermic wrap is designed to block heat penetration by chemically absorbing heat energy. When exposed to high temperatures, it keeps heat out by releasing chemically bound water to cool the outer surface.

- Outstanding performance in high-intensity fires
- Protects structural steel, cable trays and circuits in conduits
- Easy to install
- Can be installed directly over existing fire protection



3M™ Interam™ Tape T-49



3M Interam Tape T-49 is an adhesive-backed aluminum foil tape designed to seal the cut edges of 3M Fire Barrier duct wrap and interam mats to complete the total encapsulation.

- 3-mil aluminum foil
- Acrylic adhesive
- Tensile strength: 30 lbs./in. width (525N/100 mm)



Specifications and Ordering Information for 3M™ Sheets and Rolls

Product	UPC (051115-)	Size	Case Qty.
SHEETS			
CS-195+ 16" x 28"	07437-0	16" x 28" (406,4 mm x 711,2 mm)	1
CS-195+ 3' x 2'	07220-8	24" x 36" (609,6 mm x 914,4 mm)	1
CS-195+ 3' x 3'	07222-2	36" x 36" (914,4 mm x 914,4 mm)	1
CS-195+ 3' x 41"	07224-6	36" x 41" (914,4 mm x 1041,4 mm)	1
CS-195+ 28" x 52"	08260-3	28" x 52" (711,2 mm x 1320,8 mm)	1
ROLLS			
E-5A-4 Mat	16571-9	24.5" x 20.0' x 0.4" (622,3 mm x 6,10 m x 10,16 mm)	1 roll
Aluminum Tape T-49	02240-1	4" x 180' x 0.005" (101,6 mm x 54,8 m x 0,127 mm)	2 rolls

Miscellaneous

3M™ Fire Barrier Mortar

3M Fire Barrier Mortar is a lightweight cementitious firestop product.

- Variable mix ratio—permits self-leveling as well as no-sag (no forming) application consistencies, resulting in labor savings
- Excellent adhesion—will bond to concrete, metals, wood, plastic and cable jacketing
- Reenterable without use of power tools—results in lower maintenance costs due to ease of making cable changes
- Bonds to itself—proven prior and during fire testing, resulting in proven and tested repair procedures
- Pumpability
- Warnock Hersey Certified, system number 3M/PHV 120-01 for 2-hour separations
- Mortar is available in 44 lb. bags



Specifications and Ordering Information for 3M™ Mortar, Spray and Duct Wrap

Product	UPC (051115-)	Size	Case Qty.
Mortar*	07559-9	44 lb. bag	1 bag
Firedam Spray 200	18755-1	5-gallon pail (640 fl. oz.)	1 pail
Plenum Wrap 5A	16513-9	1/2" x 24" x 50'	1 roll
Plenum Wrap 5A	16514-6	1/2" x 48" x 25'	2 each
Duct Wrap 15A	16553-5	1-1/2" x 24" x 20'	1 each
Duct Wrap 15A	16554-2	1-1/2" x 48" x 20'	1 each
Duct Wrap 20A	16555-9	2" x 24" x 20'	1 each
Duct Wrap 20A	16556-6	2" x 48" x 20'	1 each
Duct Wrap 615-24	18786-5	1-1/2" x 24" x 25'	1 each
Duct Wrap 615-48	18787-2	1-1/2" x 48" x 55'	1 each

*Mortar must be ordered in 30 bag increments

Diagnostic and Detection Products

Infrared Thermometers

214

When your job calls for leading-edge temperature-measurement technology, 3M provides the solution with its family of 3M™ Infrared Thermometers and Data Communications and Coax Cable Detection Instruments.

Infrared Thermometers

These units provide a fast, easy and accurate way to measure a wide range of temperatures at a safe distance. Plant engineers and technicians can now monitor equipment more closely, more accurately and more often—helping to spot trouble before it leads to costly malfunction and repair.

For general, commercial and professional use, 3M offers a wide range of models to meet your preventative maintenance requirements.



Repair and Calibration

The purpose of this communication is to notify you of a change in the way we handle repair and calibration of heat tracers in the US. In the past, 3M orchestrated all repair and calibration requests through Austin. In the future, customers will deal directly with a 3M Authorized Repair and Calibration Center. The contact phone number will be 888-993-5853. This repair center is located in Everett, Wash., and will be able to provide all the same services that 3M provided in the past, including repair, calibration, NIST certification and spare parts. After contacting the repair center, customers will be advised on cost, time for repair and any other information they require.

Infrared Thermometers

The 3M™ Infrared Thermometer is a rugged, highly accurate and easy-to-use, portable, non-contact (infrared) thermometer. It is an invaluable tool for monitoring operating temperatures of mechanical and electrical, plant and production equipment without removing the equipment from service.

The infrared thermometer allows the electrician and/or technician to locate and identify overheating conditions in electrical wiring connections, panels, switchgear, motors and mechanical equipment, and to perform preventative maintenance before catastrophic failure occurs.

General Use

3M™ Infrared Thermometer IR-500

- Temperature range of 0°F (18°C) to 500°F (260°C)
- 8:1 distance-to-spot ratio
- Single-point laser sighting
- Best used at a distance of less than 4 feet away
- Pocket-sized with easy-to-use one-button operations

3M™ Infrared Thermometer IR-999

- Temperature range of -25°F (-32°C) to 999°F (535°C)
- 12:1 distance-to-spot ratio
- Single-point laser sighting

Commercial Use

3M™ Infrared Thermometer IR-1100

- Temperature range of -25°F (-32°C) to 1100°F (600°C)
- 30:1 distance-to-spot ratio
- Single-point laser sighting
- High and low alarm
- Stores 12 data points in memory
- Recalls maximum, minimum, differential, average, and last temperature readings
- Adjustable emissivity

3M™ Infrared Thermometer IR-1400

All features of IR-1100 plus:

- Increased temperature range of -25°F (-32°C) to 1400°F (760°C)
- 50:1 distance-to-spot ratio



3M™ Infrared Thermometer Model IR-60EXPL2

3M™ Probe IR

An optional accessory for the IR-1100 and the IR-1400 is the Probe IR, a Resistance Temperature Detector that plugs into the standard jack on these units and provides contact temperature simultaneously with noncontact temperature. Accuracy +/- 2°F. Temperature Range: -13°F to 500°F.

3M™ Infrared Thermometer IR-1400IS

All the benefits of the IR-1400 plus:

- Factory Mutual Approved for usability in potentially hazardous (explosive or flammable) locations
- Rated Intrinsically Safe for Class I, Division I, Groups A, B, C, D. Class 1, Zone 0, AEX is IIC, T4 at 50C when used with 9v alkaline battery, and it includes an approved external contact probe

3M™ Infrared Thermometer IR-60L2 and IR-60CFO

- Temperature range of -25°F (-32°C) to 1600°F (870°C)
- 60:1 distance-to-spot ratio
- 3-dot laser sighting provides increased accuracy
- High alarm for scanning
- Adjustable emissivity
- The IR-60L2 is also available in a close focus model, the IR-60CFO, with a 50:1 distance-to-spot ratio that allows for the precise reading of small objects at a distance

Professional Use

3M™ Infrared Thermometer IR-60EXPL2 and IR-60EXCFO

All features of the IR-60L2 and IR-60CFO plus:

- Connect directly to a PC or printer for data download
- Store 100 data points in memory
- Standard pack-out includes an RS232 cable, Windows® operating system-based software, power supply, contact probe, wrist strap and hard plastic case

Choose the 3M™ Infrared Thermometer That's Right for Your Job

Product	Laser Sighting	Distance-to-Spot Ratio	Alarms	Data Logs	Emissivity	Maximum Temperature
IR-500	Single dot	8:1	-	-	Fixed	500°F (260°C)
IR-999	Single dot	12:1	-	-	Fixed	999°F (535°C)
IR-1100	Single dot	30:1	HI-LO	12	Adjustable	1100°F (600°C)
IR-1400	Single dot	50:1	HI-LO	12	Adjustable	1400°F (760°C)
IR-1400IS	Single dot	50:1	HI-LO	12	Adjustable	1400°F (760°C)
IR-60L2	3 dot	60:1	HI Only	-	Adjustable	1600°F (870°C)
IR-60CFO	3 dot Close focus	50:1	HI Only	-	Adjustable	1600°F (870°C)
IR-60EXPL2	3 dot	60:1	HI-LO	100, Software	Adjustable	1600°F (870°C)
IR-60EXCFO	3 dot Close focus	50:1	HI-LO	100, Software	Adjustable	1600°F (870°C)

Does your job require NIST or DKD compliance? Be sure to order your IR-999, IR-1100, IR-1400, IR-60L2, or IR-60EXPL2 with certification (NIST or DKD).

Single Dot Laser



3 Dot Laser



The 3 point laser defines the diameter of the area being measured; a single laser spot shows the center of the measurement area.

3M™ INFRARED THERMOMETERS

FEATURES	ADVANTAGES	BENEFITS
Contains built-in laser sighting	User can literally "spot" and scan the object from a safe distance	Easy to use
Constructed of light, yet rugged plastics	Lightweight, withstands use in industrial environments	Easy to use
Non-contact temperature measurement	Designed to provide accurate measurement and personal safety	Improves quality and safety
Back-lit LCD display	Readable in dark areas	Easy to use

Specifications for 3M™ Infrared Thermometers

Specifications	Models			
	IR-500	IR-999	IR-1100	IR-1400
Temperature Range	0 to 500°F (-18 to 260°C)	-25 to 999°F (-32 to 535°C)	-25 to 1100°F (-32 to 600°C)	-25 to 1400°F (-32 to 760°C)
Accuracy of Reading	±2%	±1%	±1%	±1%
Repeatability of Reading	±2%	±0.5%	±0.5%	±0.5%
95% Response Time	500 msec	500 msec	500 msec	500 msec
Spectral Response	7-18 microns	8-14 microns	8-14 microns	8-14 microns
Optical System	8:1	12:1	30:1	50:1
Max. Temperature	–	X	X	X
Min., Dif., Avg. Temp.	–	–	X	X
Recall Last Reading	–	–	X	X
Display Hold	X	X	X	X
High Alarm	–	–	X	X
Low Alarm	–	–	X	X
Low Battery Indicator	X	X	X	X
LCD Backlight	X	X	X	X
Laser (Class II)	X	X	Single dot	Single dot
Emissivity	Pre-set 0.95	Pre-set 0.95	Adjustable from 0.10 to 1.0	Adjustable from 0.10 to 1.0
Temperature Display	°C or °F selectable 3.5 digit LCD	°C or °F selectable 3.5 digit LCD	°C or °F selectable 3.5 digit LCD	°C or °F selectable 3.5 digit LCD
Display Resolution	–	0.5°F (0.2°C)	0.1°F (0.1°C)	0.1°F (0.1°C)
Ambient Operating Range	32 to 120°F (0 to 50°C)	32 to 120°F (0 to 50°C)	32 to 120°F (0 to 50°C)	32 to 120°F (0 to 50°C)
Relative Humidity, Ambient	10-95% RH noncondensing, @ > 86°F (30°C)	10-95% RH noncondensing, @ > 86°F (30°C)	10-95% RH noncondensing, @ > 86°F (30°C)	10-95% RH noncondensing, @ > 86°F (30°C)
Storage Temperature	-13° to 158°F (-20° to 60°C) w/ out battery	-13° to 158°F (-20° to 60°C) w/ out battery	-13° to 158°F (-20° to 60°C) w/ out battery	-13° to 158°F (-20° to 60°C) w/ out battery
Power	9V Alkaline or NiCd battery	9V Alkaline or NiCd battery	9V Alkaline or NiCd battery	9V Alkaline or NiCd battery
Battery Life (Alkaline)	12 hours; 40 hours with laser and backlight off	10 hours with laser and backlight on	20 hours with laser and backlight on 50%, 40 hours with laser and backlight off	20 hours with laser and backlight on 50%, 40 hours with laser and backlight off
Dimensions	7.25" x 1.75" x 1.5" (184 x 45 x 38 mm)	8" x 6" x 2" (200 x 160 x 55 mm)	8" x 6" x 2" (200 x 160 x 55 mm)	8" x 6" x 2" (200 x 160 x 55 mm)
Weight	8 oz. (227g)	11 oz. (320g)	11 oz. (320g)	11 oz. (320g)
Locking Trigger	–	–	X	X
Tripod Mount	–	1/4"- 20 UNC Threading	1/4"- 20 UNC Threading	1/4"- 20 UNC Threading
Accessories Standard with Each Unit	–	Hard plastic case Wrist strap	Hard plastic case Wrist strap	Hard plastic case Wrist strap
Data Logger Points	–	–	12 data points in memory	12 data points in memory

Notes:

* NIST and DKD certification is optional on all models except the IR-500.

** The IR-60CFO has the same specifications as the IR-60L2, and IR-60EXCFO has the same specifications as the IR-60EXPL2.

*** The IR-1400IS has the same specifications as the IR-1400.

3M™ Infrared Thermometers

Specifications	Models	
	IR-60L2	IR-60EXPL2
Temperature Range	-25 to 1600°F (-32 to 870°C)	-25 to 1600°F (-32 to 870°C)
Accuracy of Reading	±1%	±1%
Repeatability of Reading	±0.5%	±0.5%
95% Response Time	250 msec	250 msec
Spectral Response	8-14 microns	8-14 microns
Optical System	60:1	60:1
Max. Temperature	X	X
Min., Dif., Avg. Temp.	–	X
Recall Last Reading	X	X
Display Hold	X	X
High Alarm	X	X
Low Alarm	–	X
Low Battery Indicator	X	X
LCD Backlight	X	X
Laser (Class II)	3 dot	3 dot
Emissivity	Adjustable from 0.10 to 1.0	Adjustable from 0.10 to 1.0
Temperature Display	°C or °F selectable 3.5 digit LCD	°C or °F selectable 3.5 digit LCD
Display Resolution	Tenth degree reading up to 199.9 (F or C)	Tenth degree reading up to 199.9 (F or C)
Ambient Operating Range	32 to 120°F (0 to 50°C)	32 to 120°F (0 to 50°C)
Relative Humidity, Ambient	10-95% RH noncondensing, @ > 86°F (30°C)	10-95% RH noncondensing, @ > 86°F (30°C)
Storage Temperature	-25° to 122°F (-30° to 50°C) w/ out battery	-25° to 122°F (-30° to 50°C) w/ out battery
Power	2 x 1.5V Alkaline Type AA	2 x 1.5V Alkaline Type AA
Battery Life (Alkaline)	25 hours measurement mode, 11 hours with laser on, 6 hours with backlight and laser on (50% backlight used)	25 hours measurement mode, 11 hours with laser on, 6 hours with backlight and laser on (50% backlight used)
Dimensions	6.7" x 2" x 7.9" (170 x 50 x 200 mm)	6.7" x 2" x 7.9" (170 x 50 x 200 mm)
Weight	1 lb - 6 oz.	1 lb - 6 oz.
Locking Trigger	X	X
Tripod Mount	1/4"-20 UNC Threading	1/4"-20 UNC Threading
Accessories Standard with Each Unit	Hard plastic case Wrist strap	Software, RS232 cable, 7.5 V power supply, contact probe, hard plastic case, wrist strap
Data Logger Points	–	100 points in memory



3M™ Infrared Thermometer
IR-500



3M™ Infrared Thermometer
IR-999



3M™ Infrared Thermometer
IR-1100/1400/1400IS



3M™ Infrared Thermometer
IR-60L2/60CFO

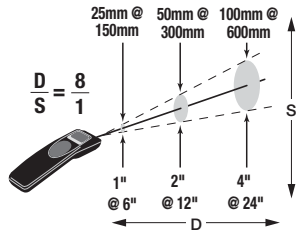


3M™ Infrared Thermometer
IR-60EXPL2/60EXCFO

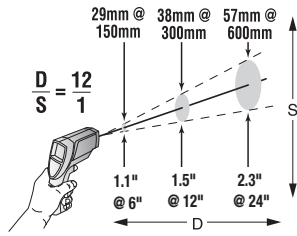
3M™ Infrared Thermometer Field of View Comparison

Model Number	Field of View
--------------	---------------

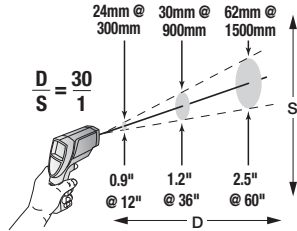
IR-500



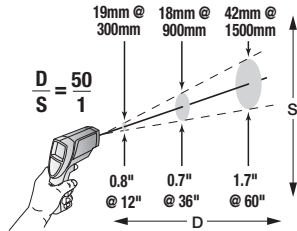
IR-999



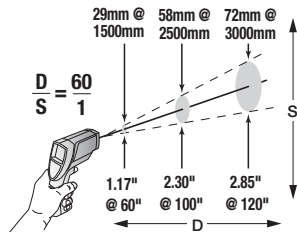
IR-1100



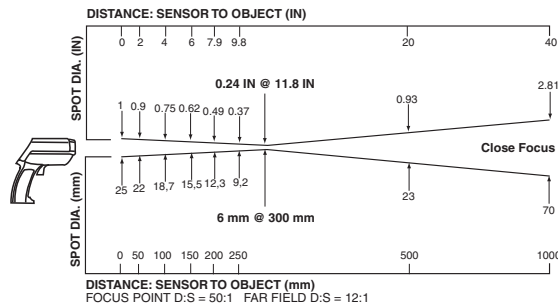
IR-1400
IR-1400IS



IR-60L2
IR-60EXPL2



IR-60CFO
IR-60EXCFO



Ordering Information for 3M™ Infrared Thermometers

Product Number	Description	UPC (054007-)	Billing Unit	Inner Unit Pack	Minimum Order Case Qty.
IR-500	Infrared Thermometer Sgl Laser	43556	each	1/box	20
IR-999	Infrared Thermometer Sgl Laser	44412	each	–	1
IR-999NI	Infrared Thermometer Sgl Laser NIST Certified	44433	each	1/case	1
IR-1100	Infrared Thermometer Circ Laser	44414	each	–	1
IR-1100NI	Infrared Thermometer Circ Laser Certified	44435	each	–	1
IR-1400	Infrared Thermometer Circ Laser	44415	each	–	1
IR-1400IS	Infrared Thermometer Intrinsically Safe w/ Probe	53262*	each	–	1
IIR-1400NI	Infrared Thermometer Circ Laser Certified	44436	each	–	1
IR-60L2	Infrared Thermometer 3 Dot Laser	42840	each	–	1
IR-60L2NI	Infrared Thermometer 3 Dot Laser Certified	42843	each	–	1
IR-60CFO	Infrared Thermometer, Close Focus model	43961	each	–	1
IR-60EXPL2-1	Infrared Thermometer 3 Dot Laser	42852	each	–	1
IR-60EXPL2NI-1	Infrared Thermometer 3 Dot Laser	42855	each	–	1
IR-60EXCFO	Infrared Thermometer, Close Focus w/ software	44440	each	–	1
IR-60EXPL2-2	Infrared Thermometer 3 Dot Laser	42856	each	–	1
IR-60EXPL2NI-2	Infrared Thermometer 3 Dot Laser	42859	each	–	1
IR Probe	RTD Temp Probe for IR-1100 and IR-1400	53264*	each	–	1

*UPC prefix 051128-

For repair and/or calibration of Infrared Thermometers, call (888) 993-5853.

A more effective way to monitor your equipment



Safety and Protection Products



Personal Safety	222
Respirators	222
Hearing Conservation	227
Eye Protection	230
Face and Head Protection	233
Environmental Safety	236
Maintenance Sorbents	238
Petroleum Sorbents	241
Chemical Sorbents	245
Lockout Systems	251
Barricade Tapes	257








Quality and performance make 3M a leader with a variety of safety products, sorbents, reflective tapes and traction systems.

applicable OSHA regulations. 3M can provide the products you need for a variety of applications.

Safety and comfort are the two main concerns in the development of 3M safety and protection products. Whenever work is done in environments that require the use of safety and protection, we can help you meet

3M's quality and performance standards ensure that you'll get the job done quicker and easier with 3M products.

3M Filtering Facepiece Respirator Technologies

3M [®] Cool Flow™ Exhalation Valve	Faceseal	Advanced Electret Media	Carbon Filter Material	Cake-Resistant Filter Media	Adjustable Buckle Straps	Compatibility
						
Patented one-way valve for easy exhalation and cool, dry comfort	Soft and secure, conforms closely to face for long-lasting comfort and protection (8212 & 8214 only)	Electrostatically charged microfibers make breathing easier and cooler	Carbon layers remove many nuisance level odors* for greater comfort and productivity (8212 & 8214 only)	Specially designed filter layers for welding applications provide longer respirator life and easier breathing	A single tug helps provide a comfortable, secure fit	Accommodates a wide range of safety equipment, including eye and hearing protection

* Nuisance level refers to concentrations below the OSHA PEL or other applicable government occupational exposure limits, whichever is lower.

Personal Safety

Respiratory Protection for a Wide Range of Industrial Applications

Industrial workers may require protection from a wide range of airborne particles including those generated from sweeping, grinding, sanding, welding and bagging applications. The respiratory protection products that workers use must be able to handle tough conditions. 3M offers a broad selection of innovative NIOSH 42 CFR 84 approved respirators.



Respirators



3M™ Particulate Respirator 8511, N95

Uniquely designed to help provide protection against certain non-oil based particles. It is ideally suited for work settings that involve heat, humidity, or long periods of wear. Workplace applications include grinding, sanding, sweeping, bagging and other dusty/hot operations. It features the 3M™ Cool Flow™ Exhalation Valve, braided headbands, soft inner materials, and adjustable M-noseclip to help provide a custom fit and secure seal.



3M™ Particulate Respirator 8200, N95

Designed to help provide protection against certain non-oil based particles. Economical, lightweight protection with an adjustable noseclip and nose foam to help provide a custom fit and secure seal.





3M™ Particulate Respirator 8210, N95

- NIOSH 42 CFR 84 N95 approved
 - Use for dusts encountered during sanding jobs and installation of fiberglass insulation
 - Adjustable noseclip helps provide a custom fit and secure seal
 - Lightweight construction promotes greater worker comfort
- Retail Pack: 8654ES



3M™ Particulate Respirator 8210 Plus, N95

The 8210 Plus, N95 features our Advanced Electret Media. Features include comfort straps, soft nose foam, and a staple free attachment, which are designed to be soft against the face and neck.



3M™ Particulate Respirator 8247, R95 with Nuisance Level Organic Vapor Relief*

- NIOSH 42 CFR 84 R95 approved:
- Lightweight construction
- Helps protect against certain oil and non-oil based particles, including those present with nuisance levels* of organic vapors such as solvents and resins

Retail Pack: 8656ES

* 3M recommended for relief against nuisance levels of organic vapors. Nuisance level refers to concentrations not exceeding OSHA PEL or other applicable government occupational exposure limits, whichever is lower.



3M™ Particulate Respirator 8515, N95

Economical welding respirator with 3M M-Noseclip to help provide a custom fit and secure seal and welding web technology with flame resistant filter media.



3M™ Particulate Welding Respirator 8212, N95 with Faceseal

- NIOSH 42 CFR 84 N95 approved
- Use for metal fumes from welding, soldering and other operations where metal fumes may be present
- 3M™ Cool Flow™ Exhalation Valve
- Lightweight construction
- Faceseal contours easily to help provide a good seal
- Adjustable noseclip

Retail Pack: 8660ES





3M™ Particulate Welding Respirator 8214, N95 with Face Seal and Nuisance Level Organic Vapor Relief*

- NIOSH 42 CFR 84 N95 approved
- Use for metal fumes from welding, soldering and other operations where metal fumes may be present
- 3M™ Cool Flow™ Exhalation Valve
- Lightweight construction
- Comfortable to wear
- Fully adjustable straps

*3M recommended for ozone up to 10X OSHA PEL or applicable government exposure limit. Not NIOSH approved for ozone. Helps provide relief from nuisance level organic vapors. Nuisance level refers to concentrations below OSHA PEL or other applicable government occupational exposure limits, whichever is lower.



3M™ Dual Cartridge Respirator Assembly, Organic Vapor/P95

- NIOSH approved: OV/P95 for use against certain airborne organic vapors and particles (42 CFR 84)
- 3M recommended for paint spray, organic vapor or pesticide applications
- Do not use for asbestos or sandblasting
- Maintenance free, disposable
- Lightweight, dependable, economical

51P71 (small), 52P71 (medium), 53P71 (large)



3M™ Particulate Respirator 9210/37021(AAD), N95

Is a breakthrough in comfort and convenience. This three-panel respirator with innovative design is uniquely designed to help provide comfortable, reliable worker protection against non-oil based particles.



3M™ Particulate Respirator 9211/37022(AAD), N95

Is a breakthrough in comfort and convenience. This three-panel respirator with innovative design is ideally suited for work settings that involve heat, humidity, or long periods of wear.



7502 Half Facepiece

- Designed for wearer comfort and face fit
- Soft sealing surface
- Uniquely designed, 3M™ Cool Flow™ Exhalation Valve



6800 Full Facepiece

- Silicone face seal enhances comfort and improves durability
- Wide field of vision
- Approved for use in both negative and positive pressure systems

Specifications and Ordering Information for 3M™ Respirators

Product Number	UPC (051111-)	Description	Inner Unit Pack	Case Qty.
51P71	66068*	Dual Cartridge Respirator Assembly, OV/P95 Small	—	12 each
52P71	66069*	Dual Cartridge Respirator Assembly, OV/P95 Medium	—	12 each
53P71	66070*	Dual Cartridge Respirator Assembly, OV/P95 Large	—	12 each
8200	91913**	Particulate Respirator, N95	20/box	8 boxes/case
8210	46457*	Particulate Respirator, N95	20/box	8 boxes/case
8210 Plus	52924**	Particulate Respirator, N95	20/ctn	8/ctn
8212	54141*	Particulate Welding Respirator, N95 with Faceseal	—	80/case
8214	66192	Particulate Welding Respirator, N95 with Faceseal and Nuisance Level*** Organic Vapor Relief	—	80/case
8247	54358*	Particulate Welding Respirator, R95 with Nuisance Level*** Organic Vapor Relief	—	120 each/case
8511	54343*	Particulate Respirator, N95	—	80 each/case
8515	660845*	Particulate Welding Respirator 8515, N95	10/box	8 boxes/case
8654ES	08654	N95 Sanding and Fiberglass Respirator***	1/pack	12 packs
8656ES	08656	Latex Paint and Odor Respirator***	1/pack	12 packs
8660ES	08660	Welding Respirator	1/pack	6 packs
9210	37021**	N95 Particulate Respirator	10 each/case	10 each/case
9211	37022**	N95 Particulate Respirator	10 each/case	10 each/case

* UPC prefix 051138-

** UPC prefix 051131-

*** 3M recommended to provide nuisance level organic vapor relief. Nuisance level refers to concentrations below OSHA PEL or other applicable government occupational exposure limits, whichever is lower.

Specifications and Ordering Information for 3M™ Facepieces

Product Number	Size	Description	UPC (500511-)
7000 Series Half Facepieces			
7501	S	This half facepiece was designed with the wearer in mind. Its soft sealing surface, along with a uniquely designed, 3M™ Cool Flow™ Exhalation Valve, enhances wearer comfort and face fit.	31370819
7502	M		31370826
7503	L		31370833
6000 Series Full Facepieces			
6700	S	Silicone face seal enhances comfort and improves durability. Wide field of vision. Approved for use in both negative and positive pressure systems.	38541458
6800	M		38541465
6900	L		38541595



Specifications and Ordering Information for 3M™ Filters/Cartridges

Product Number	Color	Description	UPC (500511-)
6001	Black	Organic Vapor Cartridge	38216745
6003	Yellow	Organic Vapor/Acid Gas Cartridge	31070474
5P71	NA	Particulate Pre-Filter, P95	31071945
501	NA	Filter Retainer	38176681
7093C	Pink	P100 Filters Hydrogen Fluoride with nuisance level* Organic Vapor/Acid Gas relief	31371731
2097	Pink	P100 with nuisance level* Organic Vapor relief	31071846
2091	Pink	P100 Filters	31070009
5N11	NA	Particulate Pre-Filter, N95	38464641
60926	Pink/Olive	P100/Multi Gas	38541878

* Nuisance level refers to concentrations not exceeding OSHA PEL of applicable government occupational exposure limits, whichever is lower.

Specifications and Ordering Information for 3M™ Spare Parts

Product Number	Description	UPC (500511-)
3M™ Spectacle Kit 6878	Use with 3M™ Full Facepiece Respirators 6000 Series. It permits the wearer to use his/her corrective lenses and to make a position adjustment that is most comfortable.	31071414
3M™ Respirator Cleaning Wipe 504	Used to clean 3M™ Elastomeric Facepiece Respirators. Individually packed 8" x 10" towelettes are alcohol free and will not damage the facepiece materials.	31070658

* UPC prefix 000511

Respiratory Training: Programs, Services, Materials

No matter how well safety products are designed, they offer little or no protection if not used properly. 3M training programs, services and materials help inform you of the correct way to use our NIOSH-approved respirators in virtually any workplace environment.

Ordering Information for 3M™ Fit Test Equipment and Accessories



Product Number	UPC (051111-)	Description	Case Qty.
FT-10	16358*	3M Qualitative Fit Test Apparatus (Sweet)	1/case
FT-11	16359*	3M Sensitivity Solution (Sweet) 55 ml bottle	6/case
FT-12	16356*	3M Fit Test Solution (Sweet) 55 ml bottle	6/case
FT-20	29137*	3M Training and Fit Testing Case (Sweet)	1/case
FT-30	54203*	3M Qualitative Fit Test Apparatus (Bitter)	1/case
FT-31	54204*	3M Sensitivity Solution (Bitter)	6 bottles/case
FT-32	54205	3M Fit Test Solution (Bitter)	6 bottles/case



WARNING

These respirators help reduce exposure to certain airborne contaminants. Before use, the wearer must read and understand the USER Instructions provided as a part of the product packaging. A written respiratory protection program must be implemented meeting all the requirements of OSHA 1910.134 including training, fit testing and medical evaluation. In Canada, CSA standards Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. **Misuse may result in sickness or death.** For proper use, see packaging instructions, supervisor, or call 3M OH&ESD Technical Service in USA at 1-800-243-4630 and in Canada at 1-800-267-4414.

Hearing Conservation



Optime™ 98 Over-the-Head Earmuffs, H9A

- Lightweight - headband
- NRR 25 dB*
- Dual low pressure bands improve comfort
- Broad foam cushions provide low surface pressure



E-A-R™ Muffs - Model 3000, 330-3002

- NRR 26 dB* behind-the-head
- Headband can be worn over-the-head, behind-the-head, or under-the-chin
- Made of durable, lightweight, non-conductive dielectric plastic



Optime™ 98 - Helmet Attachable Earmuffs, H9P3E

- Lightweight - helmet attachment
- NRR 23 dB*
- Dual low pressure bands improve comfort
- Broad foam cushions provide low surface pressure



E-A-R™ UltraFit™ Plugs with Cotton Cord, 340-4036

- NRR 25 dB*
- Patented flange design helps provide comfortable fit
- Conforms to shape of ear canal
- Washable, promotes worker hygiene
- No rolling or touching plug portion during insertion

* Research suggests that many users will receive less noise reduction than indicated by the NRR due to variation in earplug fit and wearing time. It is recommended that the NRR be reduced by 50% for estimating the average amount of noise reduction provided.





E-A-R™ Caps™ Model 200 Hearing Protectors, 321-2101

- NRR 17 dB*
- Non-invasive, comfortable hearing protection
- Band helps prevent loss and is ideal for intermittent use



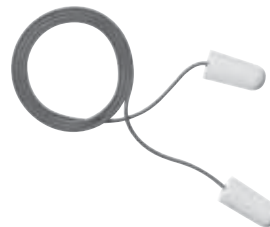
E-A-Rsoft™ Yellow Neons™ “Regular Size” Uncorded in Poly Bag, 312-1250

- NRR 33 dB*—Highest NRR available
- Self-adjusting foam provides low pressure with excellent attenuation



E-A-R™ Poly Con Carrying Case, 390-9003

- Carrying case for convenient and hygienic storage



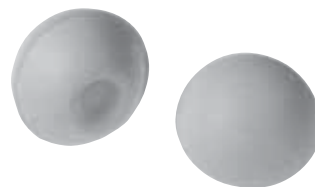
E-A-Rsoft™ Yellow Neons™ “Regular Size” Corded in Poly Bag, 311-1250

- NRR 33 dB*—Highest NRR available
- Self-adjusting foam provides low pressure with excellent attenuation
- Dermatologically safe foam is non-irritating to the skin



E-A-R™ UltraFit™ Plugs, 340-4003

- NRR 25 dB*
- Patented flange design for remarkable fit and comfort
- Conforms to shape of ear canal
- Washable, promotes worker hygiene
- No rolling or touching plug portion during insertion



E-A-R™ Caps™ Model 200 Spare Parts, 321-2103

- Replacement pods for use with 350-2100 and 321-2101

* Research suggests that many users will receive less noise reduction than indicated by the NRR due to variation in earplug fit and wearing time. It is recommended that the NRR be reduced by 50% for estimating the average amount of noise reduction provided.





E-A-R™ Muff Cushions, 331-3010

- One pair replacement cushions and foam inserts for all E-A-R earmuffs



Replacement Hygiene Kit for H31 Earmuff Cups, HY3

- Replacement hygiene kit for all H9 muffs - (1 pair cushions & 1 pair foam inserts/dampers)



3M™ Foam Ear Plugs 1100

- Smooth, dirt-resistant surface
- Tapered design to fit ear canal
- Bright orange for visibility
- Noise reduction rating of 29 dB*



3M Foam Ear Plug 1110, Corded

- Smooth, dirt-resistant surface
- Tapered design to fit ear canal
- Bright orange for visibility
- Cloth cord for convenience
- Noise reduction rating of 29 dB*

Specifications and Ordering Information for 3M Hearing Protection

Product Number	UPC (080529-)	Name/Description	Unit Pack	Case Quantity
H9A	080912*	Peltor™ Optime™ Over-the-Head Earmuff	N/A	10/case
330-3002	300017	E-A-R™ Model 3000 Earmuff	N/A	24/case
H9P3E	080936*	Peltor™ Optime™ Helmet Attached Earmuff	N/A	10/case
340-4036	400519	E-A-R™ UltraFit™ with Natural Cloth Cord	100 pair/box	4 boxes/case
321-2101	210019	E-A-Rcaps™ Model 200	10/box	10 boxes/case
321-2103	210026	E-A-Rcaps™ Replacement Pods	5 pair/pack	100 packs/case
312-1250	120639	E-A-Rsoft™ Yellow Neons™ Regular Size, Uncorded	200 pair/box	10 boxes/case
311-1250	110333	E-A-Rsoft™ Yellow Neons™ Regular Size, Corded	200 pair/box	10 boxes/case
390-9003	900057	E-A-R Earplug Carrying Case with Chain	N/A	200/case
340-4003	400021	E-A-R™ UltraFit™, Uncorded	100 pair/box	4 boxes/case
331-3010	310078	E-A-R™ Muff Cushions	6 pair/pack	25 packs/case
HY3	051614**	Peltor™ Replacement Hygiene Kit	N/A	20 kits/case

* UPC prefix 093045-

** UPC prefix 318640-

WARNING

These hearing protectors help reduce exposure to hazardous noise and other loud sounds. **Misuse or failure to wear hearing protectors at all times that you are exposed to noise may result in hearing loss or injury.** For proper use, see supervisor, User Instructions, or call 3M in U.S.A. at 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414. If there is any drainage from your ear or you have an ear infection, consult with your physician before wearing earplugs. Failure to do so may result in hearing loss or injury.

*Research suggests that many users will receive less noise reduction than indicated by the NRR due to variation in earplug fit and wearing time. It is recommended that the NRR be reduced by 50% for estimating the average amount of noise reduction provided.

Eye Protection



482/4 Chemical Splash Goggles with Clear Frame and Clear Lens, 40802-00000-10

- Impact-resistant polycarbonate lens
- Indirect venting for maximum ventilation
- Meets the requirements of ANSI Z87.1-2003 and CSA Z94.3-2007
- DX™ anti-fog hard coat protects lens from fog, scratching and most chemicals



Virtua™ V7, Clear Temples, Clear Hardcoat Lens, 11691-00000-20

- Frameless unisex design
- Soft universal fit nosebridge
- Durable polycarbonate lens construction
- Lens absorbs 99.9% UV
- Meets the requirements of ANSI Z87.1-2003



958B Tour-Guard™ III, Clear, Bulk Package, 41120-00000-100

- Impact-resistant Duralite® polycarbonate construction
- Regular size fits over most prescription eyeglass frames
- Absorbs 99.9% UV rays
- Meets the requirements of ANSI Z87.1-2003 and CSA Z94.3-2007



332/4 Impact Goggles, Clear, 40650-00000-10

- Impact-resistant polycarbonate lens
- Meets the requirements of ANSI Z87.1-2003



332/4 Chemical Splash Goggles, Clear, 40660-00000-10

- Impact-resistant polycarbonate lens
- Meets the requirements of ANSI Z87.1-2003





Virtua™ V4 Black Temple/Gray overmold, Clear Hardcoat Lens, 11670-00000-20

- Soft, dual injected temples for comfortable all day wear
- Popular unisex styling
- Rugged polycarbonate lens construction
- Lightweight
- Meets the requirements of ANSI Z87.1-2003



X.Sport™ with Silverized Temple and Clear Lens™, 15182-00000-20

- Sleek temples hug the head for ultimate comfort
- 7.5 Base curve lens provides maximum coverage and field of vision
- DX™ anti-fog hard coat protects lens from fog, scratching and most chemicals
- Soft, universal-fit nosepiece
- Meets the requirements of ANSI Z87.1-2003 and CSA Z94.3-2007



Virtua™ Clear Temples, Clear Lens (Hardcoat), 11326-00000-20

- Meets the requirements of ANSI Z87.1-2003
- Sleek - Styling with both men and women
- Lightweight - Less than 1 oz
- Contoured flexible temples for comfortable fit
- Hard coat protects lens from scratching



Virtua™ Gray Temples, Gray Lens (Hardcoat), 11327-00000-20

- Meets the requirements of ANSI Z87.1-2003
- Sleek - Styling with both men and women
- Lightweight - Less than 1 oz
- Contoured flexible temples for comfortable fit
- Hard coat protects lens from scratching



Nassau™ Plus, Fighter with Black Temple and Clear Lens, Bulk Pack, 14347-00000-100

- DX™ anti-fog hard coat protects lens from fog, scratching and most chemicals
- Duralite® Polycarbonate lenses absorb 99.9% of UV rays
- Meets the requirements of ANSI Z87.1-2003 and CSA Z94.3-2007



Nassau Rave™ with Black Frame and Gray Lens, 14453-00000-20

- New, patented “Vertically Vented” brow guard
- Lens angle and temple length are adjustable for a custom fit
- DX™ anti-fog hard coat protects lens from fog, scratching and most chemicals
- Meets the requirements of ANSI Z87.1-2003 and CSA Z94.3-2007





Virtua™ V4 Black Temple/Gray overmold, Indoor/Outdoor Mirror Lens, 11674-00000-20

- Soft, dual injected temples for comfortable all day wear
- Popular unisex styling
- Rugged polycarbonate lens construction
- Lightweight
- Meets the requirements of ANSI Z87.1-2003



Virtua™ V4 Black Temple/Gray overmold, Gray Hardcoat Lens, 11671-00000-20

- Soft, dual injected temples for comfortable all day wear
- Popular unisex styling
- Rugged polycarbonate lens construction
- Lightweight
- Meets the requirements of ANSI Z87.1-2003



Medium Lexa™ with Red/White/Blue Temples & Clear Lens, 15258-00000-100

- DX™ anti-fog hard coat protects lens from fog, scratching and most chemicals
- Duralite® Polycarbonate lenses absorb 99.9% of UV rays
- Nine task-specific lens tints and shades
- Meets the requirements of ANSI Z87.1-2003 and CSA Z94.3-2007

WARNING

These eye and face protection products help provide limited eye and face protection. **Misuse or failure to follow warnings and instructions may result in serious potential injury, including blindness or death.** For proper use, selection, and applications against flying particles, optical radiation and/or splash see supervisor, read User Instructions and warnings on the package or call 3M OH&ESD Technical Service in the USA at 1-800-243-4630. In Canada, call 1-800-267-4414.

Specifications and Ordering Information for 3M Eye Protection

Product Number	UPC (078371-)	Name/Description	Unit Pack	Case Quantity
40802-00000-10	623910	484B Chemical Splash Goggle, Clear	N/A	10/case
11691-00000-20	620391	Virtua™ V7, Clear Temple, Clear Hardcoat Lens	10/box	2 boxes/case
41120-00000-100	623439	958B Tour-Guard™ III, Clear	10/box	10 boxes/case
40650-00000-10	621374	332 Impact Goggle, Clear	N/A	10/case
40660-00000-10	621398	334 Chemical Splash Goggle, Clear	N/A	10/case
11670-00000-20	620346	Virtua™ V4, Black Temple, Clear Hardcoat Lens	10/box	2 boxes/case
11327-00000-20	621022	Virtua™ Clear Temple, Gray Hardcoat Lens	10/box	2 boxes/case
15182-00000-20	623866	X.Sport™, Silver Frame, Clear Anti-Fog Lens	10/box	2 boxes/case
14347-00000-100	622692	Nassau Plus™ Black Frame, Clear Lens	10/box	10 boxes/case
11326-00000-20	620995	Virtua™ Clear Temple, Clear Hardcoat Lens	10/box	2 boxes/case
14453-00000-20	622739	Nassau Rave™ Black Frame, Gray Lens	10/box	2 boxes/case
11674-00000-20	620384	Virtua™ V4, Black Temple, Indoor/Outdoor Mirror Lens	10/box	2 boxes/case
11671-00000-20	620353	Virtua™ V4, Black Temple, Gray Hardcoat Lens	10/box	2 boxes/case
15258-00000-100	623019	Lexa™, American Red/White/Blue Frame, Clear Lens	10/box	10 boxes/case

Face and Head Protection



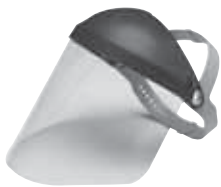
H8A Deluxe Ratchet Headgear, 82501-00000

- Ratchet head size adjustment and five-position pinlock crown strap
- Floating window suspension distributes weight and reduces shock impact
- Can be used in high-heat applications - ambient air temperatures up to 300°F



WP96AF Clear Polycarbonate Anti-Fog Window, 82704-00000

- Heavy duty impact protection
- Good heat resistance
- Anti-fog coating for increased visibility
- Windows mount inside crown for added support
- Size 9" X 14.5" X 0.080"



WP96R Clear Polycarbonate Window, 82579-00000*

- General purpose face protection
- Good heat resistance
- Windows mount inside crown for added splash protection
- Size 9" X 14.5" X 0.040"

* Faceshield only, does not come with headgear



White Bump Cap 4PT Pinlock, 46525-00000

- Protection from minor bumps, bruises & lacerations
- Four point washable suspension
- Easy pinlock adjustment
- Fits head sizes 6.5 to 7.75
- Perforated vents keep head cooler



White XLR8™ Hard Hat with 6-pt. Pinlock Suspension, 45964-00001

- Revolutionary design with real hard hat wearers in mind
- Customize with "Quick Snap" suspension and universal accessory slots
- Value priced 6-pt pinlock suspension
- Woven nylon suspension for ultimate comfort
- Fully dielectric/meets ANSI Z89.1-2003 Type 1, Class C, G, E



Yellow XLR8™ Hard Hat with 6-pt. Pinlock Suspension, 45963-00001

- Revolutionary design with real hard hat wearers in mind
- Customize with "Quick Snap" suspension and universal accessory slots
- Value priced 6-pt pinlock suspension
- Woven nylon suspension for ultimate comfort
- Fully dielectric/meets ANSI Z89.1-2003 Type 1, Class C, G, E



Hi-Viz Orange XLR8™ Hard Hat with 6-pt. Pinlock Suspension, 45968-00001

- Revolutionary design with real hard hat wearers in mind
- Customize with “Quick Snap” suspension and universal accessory slots
- Value priced 6-pt pinlock suspension
- Woven nylon suspension for ultimate comfort
- Fully dielectric/meets ANSI Z89.1-2003 Type 1, Class C, G, E



Yellow XLR8™ Hard Hat with 6-pt. Ratchet Suspension, 45969-00001

- Revolutionary design with real hard hat wearers in mind
- Customize with “Quick Snap” suspension and universal accessory slots
- Value priced 6-pt ratchet suspension
- Woven nylon suspension for ultimate comfort
- Fully dielectric/meets ANSI Z89.1-2003 Type 1, Class C, G, E



XLR8™ 6-pt. Pinlock Replacement Suspension, 45977-00001

- Featuring easy “Quick Snap” suspension
- Woven nylon suspension for ultimate comfort



Hi-Viz Orange XLR8™ Hard Hat with 6-pt. Ratchet Suspension, 45974-00001

- Revolutionary design with real hard hat wearers in mind
- Customize with “Quick Snap” suspension and universal accessory slots
- Value priced 6-pt ratchet suspension
- Woven nylon suspension for ultimate comfort
- Fully dielectric/meets ANSI Z89.1-2003 Type 1, Class C, G, E



White XLR8™ Hard Hat with 6-pt. Ratchet Suspension, 45995-00001

- Revolutionary design with real hard hat wearers in mind
- Customize with “Quick Snap” suspension and universal accessory slots
- Value priced 6-pt ratchet suspension
- Woven nylon suspension for ultimate comfort
- Fully dielectric/meets ANSI Z89.1-2003 Type 1, Class C, G, E



XLR8™ 6-pt. Ratchet Replacement Suspension, 45978-00001

- Featuring easy “Quick Snap” suspension
- Woven nylon suspension for ultimate comfort

3M™ Glo-Mega™ Hard Hat 1910GL, Ratchet Suspension

Unique formulation is designed to glow in the dark after being exposed to a light source. Excellent for use in dark environments. Illumination visible for 48 hours when properly charged. Comfort features include brow pad, 6-point ratchet suspension.

This hard hat meets the requirements of the American National Standard for Industrial Head Protection ANSI Z89.1-2003, Type I, Class C, E and G.

The Glo-Mega Hard Hat features a unique formulation designed to Glow-In-The-Dark after being exposed to a light source. Excellent for use in dark environments, such as night construction and mining. Illumination is visible for 48 hrs. when properly charged. To charge hard hat, expose it for 10 to 20 minutes in sunlight for best results. It can also be exposed to bright fluorescent light for 30 minutes. Twenty minutes of exposure near a 40-watt incandescent bulb will generate a significant glow.

Additional comfort features include replaceable cushioned brow pad and a 6-point ratchet textile suspension.

Accessory slots accommodate a variety of eye, face and hearing products.

Specifications and Ordering Information for 3M Face and Head Protection

Product Number	UPC (078371-)	Name/Description	Unit Pack	Case Quantity
82501-00000	825017	H8A Delux Ratchet Headgear	N/A	10/case
46525-00000	465251	Bump Cap 4PT Pinlock, White	N/A	30/case
82704-00000	827042	WP96AF Clear Polycarbonate Anti-Fog Lens	N/A	10/case
45964-00001	459649	XLR8™ Hard Hat 6PT Pinlock, White	N/A	20/case
82579-00000	825796	WP96R Standard Clear Polycarbonate	N/A	25/case
45963-00001	459632	XLR8™ Hard Hat 6PT Pinlock, Yellow	N/A	20/case
45968-00001	459687	XLR8™ Hard Hat 6PT Pinlock, Hi-Viz Orange	N/A	20/case
45969-00001	459694	XLR8™ Hard Hat 6PT Ratchet, Yellow	N/A	20/case
45977-00001	459779	XLR8™ 6PT Pinlock Replacement Suspension	N/A	20/case
45974-00001	459748	XLR8™ Hard Hat 6PT Ratchet, Hi-Viz Orange	N/A	20/case
45995-00001	459953	XLR8™ Hard Hat 6PT Ratchet, White	N/A	20/case
45978-00001	459786	XLR8™ 6PT Ratchet Replacement Suspension	N/A	20/case

Environmental Safety

10 Ways to Reduce Sorbent Costs

1. Sorbent Selection

Choose an efficient sorbent. If you select a sorbent with high capacity, you will use less, and there will be less waste after use, reducing disposal costs. A waste minimization and disposal cost reduction program should include participation from purchasing, user and environmental responsibilities to cover all PLD (purchase + labor + disposal) factors. Consider the disposal options up front. Can the sorbent be landfilled, incinerated, or used in a waste-to-fuel burner?

2. Selective vs. Non-Selective Sorbent

Pick the right product for the application. To separate oil from water, use a selective sorbent; also use a selective sorbent to pick up oil outdoors where rain or other water may be present. For other situations, to pick up both oil- and water-based fluids, a non-selective sorbent is best.

3. Identify Needs

Take a plant tour to identify the best sorbent product for the job. Many convenient formats—rolls, pads, booms, pillows, rugs and drum covers—are available to meet your needs. Use a multi-format sorbent, such as 3M™ Folded Sorbent, to meet a variety of needs and save on inventory.

4. Use Dispensers

Cutting to length or width needed avoids over use. Get the cost benefit of purchasing in bulk rolls.

5. Use Sorbents to Full Capacity

To get the benefit of efficient sorbents, it is necessary to leave them in position longer. Let them work for you and fewer changes will be necessary.

6. Separate Fluids

Use a centrifuge to separate sorbed fluids for reclaiming or recycling. Sorbents may be reusable. An EPA study has demonstrated savings of 51% to 75% when sorbents are reused from 2 to 8 times.



7. Identify Waste Streams

Don't mix hazardous and non-hazardous waste. As an example, mixing a small amount of chlorinated solvent with a drum of recyclable oils will classify the whole drum as hazardous waste and greatly increase the disposal cost.

8. Compress Waste

If a compressible sorbent is used, the volume of waste can be reduced by compacting. Removal of fluids with a wringer or centrifuge will give an initial reduction in volume. A drum or trash compactor will reduce the volume further. Since disposal costs are based primarily on volume, significant savings may be achieved. In some areas mobile extraction and compacting services are available.

9. Training

Costs associated with use of sorbent materials are often underestimated and overlooked. Economical use can be as simple as using sorbent on the equipment or at the source of the leak before it spreads across the floor. User training is essential to change attitudes and get buy-in for total overall cost savings.

10. Use Resources

Call your local 3M representative or the 3M technical hot line at 1-800-243-4630 for help with product selection. Your regional EPA office can help you find the waste disposal service companies in your area and help you select the most cost-effective disposal method.

Cost Comparison: 3M™ Sorbents vs. Clay Granules

Materials

2/3 case M-PD1520DD (66 pads)
 1 case will absorb approximately 37.5 gallons
 (1 case = 100 pads)



5.7 - 50 lb. bags
 1 - 50 lb. bag will absorb
 approximately 4.4 gallons



Labor

6.7 lbs. sorbent + 182.5 lbs. oil = 189.2 lbs.
 189.2 lbs. at 6 lbs. per minute clean-up =
 32 minutes of worker time



285 lbs. clay + 182.5 lbs. oil = 467.5 lbs.
 467.5 lbs. at 2 lbs. per minute clean-up =
 234 minutes (plus breaks) of worker time



Drums and Disposal

0.5 drum to hold sorbent and fluid
 for disposal



1.6 drums to hold clay granules
 and fluid for disposal



Calculations are estimated for cleaning up 25 gallons of fluid. 3M sorbent capacities are based on 3M laboratory data. Clay granule data was obtained from the Sorptive Mineral Institute. Labor savings are based on data collected by 3M and a major U.S. manufacturer and reflect an expected labor savings in most operations.

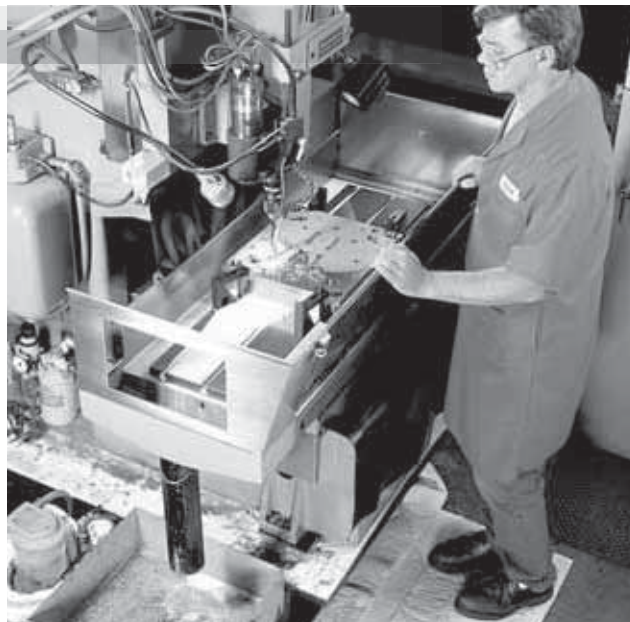


Maintenance Sorbents



3M™ Maintenance Sorbent-Folded M-FL550DD High Capacity

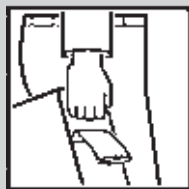
- All-purpose sorbent—four sorbent configurations in one
- Ideal for plants and facilities
- Cleans up non-aggressive fluids, including cutting oil, coolants, aqueous-based liquids and petroleum based products
- Dust-free and contains no abrasive granules that could damage equipment
- Handy dispenser box for on-site use



SUGGESTED APPLICATIONS

- Industrial machinery leaks, drips, spills and splashes of non-aggressive maintenance fluids
- Wiping down oily tools and equipment
- Tabletops and under work surfaces
- Indoor vehicle/equipment parking areas—fork trucks, compressors, and lift equipment
- Areas where an oily mist is problematic
- Under oily machined metal parts while they drip off prior to packing and shipping

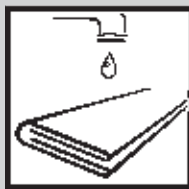
Application Guide



Carry



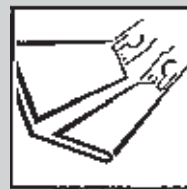
Tear



Unopened



Around Corner



Unfold



Open



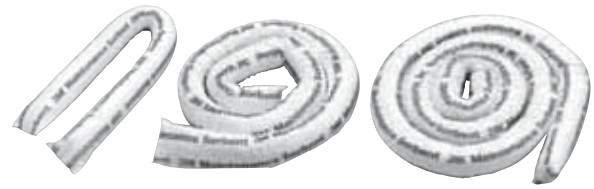
3M™ Maintenance Sorbent Pads, High Capacity, M-PD1520DD and M-PD720GG

- Low-profile design that is perfect for placing in, under, and around machines to catch drips
- Ideal for tight areas, cleaning up small spills, and wiping down oily tools and equipment
- Highly absorbent and nongranular
- Ideal for use in drip pans



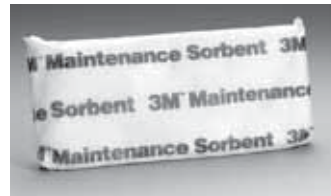
3M™ Maintenance Sorbent Rolls, High Capacity, M-RL15150DD, M-RL38150DD

- Designed to cover large surfaces
- Perfect for lining drawers, covering workbenches, or masking larger areas
- Used to cover and sorb large spills, or in areas where spills may occur
- Available in two convenient widths—15 and 38 inches
- Convenient in that they can be cut to the desired length



3M™ Maintenance Sorbent Mini-Booms, M-MB304, M-MB308, M-MB312

- Ideal for placing around equipment to contain spills and to prevent leaks from spreading to adjacent work areas
- A 3-inch diameter with scrim on the outside of mini-boom identifies the use while containing particulate sorbent material designed for that application



3M™ Maintenance Sorbent Pillow M-PL715

- Can be placed quickly at the source of a leak, helping to save cleanup time
- Ideal for use in a drip pan, under equipment, or at the source of a large leak
- Small and lightweight
- Tear-resistant and features a high capacity for holding liquid





3M™ Maintenance Sorbent Rugs M-RG36300E and M-RGC36100E

- Help keep shop floors cleaner and safer
- Absorb most shop fluids and oils without breaking down
- Rugs resist tearing and can withstand heavy traffic
- M-RGC36100E has one side coated to reduce slipping and acts as a fluid barrier



3M™ Maintenance Sorbent Drum Cover M-DC22DD High Capacity

- Designed to be used on a 55 gallon drum to catch drips and spills that occur during the dispensing of all types of non-aggressive materials used in daily operations
- Designed with cut-outs for dispensing bungs and a skirt which fits neatly around the base of the drum to catch any drips that would normally end up on the floor



Petroleum Sorbents



3M™ Petroleum Sorbent Folded P-FL550DD, High Capacity

- Easy-to-use solution for cleaning spills, drips and fluid leaks
- Four sorbents in one. It can be used as a boom, pillow, pad, or roll, which means you stock fewer products to meet your sorbent needs
- Perforations every 16 inches allow you to select the length required, so there's less wasted sorbent
- High water repellency
- Saves money as oil and not water is recovered
- Can be used outside as well as in-plant
- A handy dispenser box for easy, on-site use



3M™ Petroleum Sorbent Pads, High Capacity, HP-156 and HP-157

- Convenient sizes, allows the user to quickly spread sorbent on and in the path of a spill
- Pads may also be used on a work surface in anticipation of a spill, or as a wipe
- A selective sorbent which will “sorb” hydrocarbon-based liquids (oleophilic) and repel aqueous-based liquids (hydrophobic)
- High capacity sorbents have a scrim on one side to increase strength and reduce linting



3M™ Petroleum Sorbent Pads, High Capacity HP-255 and HP-256

- Can be placed directly on machinery or tucked in and around machines to catch and contain leaking lubricants
- Can be used to wipe contaminated surfaces
- Twice as thick as a standard pad
- High capacity in a low-profile design
- Extra sorbency into tight areas
- They absorb petroleum-based liquids and repel water

SUGGESTED APPLICATIONS

- Controlling, cleaning up and recovering oil and petroleum based liquids from effluent discharge, streams, ponds, lakes, rivers, and other bodies of water
- In-plant spills under leaking equipment and machinery in place of clay granules
- In drains and sumps to collect petroleum products from runoff





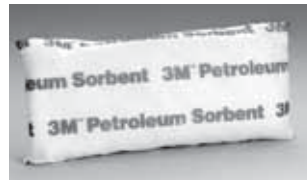
3M™ Petroleum Sorbent Roll HP-100, High Capacity

- Designed to cover large areas
- Perfect for lining drawers, covering workbenches, or masking areas from oversprays
- Can be cut to cover small areas or can be laid on open waters, shorelines, or discharge streams
- One bale of HP-100 petroleum sorbent material will absorb up to 73 gallons of petroleum-based liquid
- Can be wrung out and reused many times over to reduce waste and reclaim fluids



3M™ Petroleum Sorbent Mini-Booms, T-4, T-8 and T-12

- A selective sorbent which will “sorb” hydrocarbon-based liquids (oleophilic) and repel aqueous-based liquids (hydrophobic)
- Typically used because of their tube-like shape to encircle spills and contain leaks
- A 3-inch diameter with scrim on the outside of mini-boom identifies the use while containing particulate sorbent material designed for that application



3M™ Petroleum Sorbent Mini-Pillow T-30

- Can be used in areas where more capacity is desired than can be achieved using a sorbent pad
- Pillows are designed with a scrim that encases particulate sorbent material
- Pillows are small, lightweight, and tear-resistant
- A selective sorbent that will “sorb” hydrocarbon-based liquids (oleophilic) and repel aqueous-based liquids (hydrophobic)



3M™ Petroleum Sorbent Drum Cover P-DC22DD, High Capacity

- Designed for use on a 55-gallon drum to catch drips and spills that occur during the dispensing of hydrocarbon materials
- Designed with cut-outs for dispensing bungs and a skirt that fits neatly around the base of the drum to catch drips that would normally end up on the floor
- A selective sorbent that will “sorb” hydrocarbon-based liquids (oleophilic) and repel aqueous-based liquids (hydrophobic), allowing them to be used in outdoor areas where drums are stored
- Scrim located on one side to increase strength and reduce linting





3M™ Petroleum Sorbent Pads T-151, T-156, and T-157

- A selective sorbent that will “sorb” hydrocarbon-based liquids (oleophilic) and repel aqueous-based liquids (hydrophobic)
- Each bale of T-151 pads absorbs 43.5 gallons, contains 200 pads that are 17 inches by 19 inches, and weighs 20 pounds
- Conveniently sized, pads will allow the user to quickly spread sorbent on and in the path of a thin spill
- T-151 pads are half as thick as the T-156 pad, making them an excellent wipe for petroleum-based liquids
- The T-156 and T-157 sorbent pads are extremely easy to apply, retrieve, and reuse
- Pads are recommended for congested areas such as under docks, in shallow water, rocky shorelines, marshes, and beaches
- Pads can also be used to wipe off oil-contaminated rocks, boats, and equipment
- Ideal for in-plant use in place of clay granules



3M™ Petroleum Sorbent Rolls T-100, T-190

- Can be used on all sizes of spills and discharges
- Can be cut to cover small areas or laid directly on open waters, shorelines, or discharge streams
- Can be placed on docks, in boats, and under leaking machines



3M™ Petroleum Sorbent Boom T-270

- Recommended for controlling and absorbing spills and effluent discharges in ditches, streams, rivers, lakes, and terminal docks and piers
- Can be linked together by built-in connectors to overlap and deploy over large areas
- Designed for long-term deployment
- UV resistant, will not deteriorate or disintegrate and has an inner scrim to reduce linting
- Will absorb the oil as they aid in containing it



3M™ Petroleum Sorbent Double Boom T-280

- Constructed more rigidly to facilitate handling in those hard-to-get at areas and to make it easier to turn over for full saturation
- Features a unique double-cylinder design to maximize absorption and minimize the escape of traces of oil in flowing water



3M™ Petroleum Sorbent Sweep T-126

- Excellent for sweeping thin slicks on water where mechanical skimmers fail
- Built in rope facilitates sweeping action over large surface areas
- Can also be placed downstream from booms to recover any escaping traces of oil



3M™ Petroleum Sorbent Pillow T-240

- A selective sorbent that will “sorb” hydrocarbon-based liquids (oleophilic) and repel aqueous-based liquids (hydrophobic)
- Excellent for handling large quantities of light oil in confined spaces such as sumps, catch basins, bilges, or settlement ponds
- Designed for long term use, they are UV resistant and will not deteriorate or sink



3M™ Petroleum Sorbent Static Resistant Roll HP-500, High Capacity

- Specifically designed to be used for the safe cleanup of highly flammable petroleum-based liquids
- Specially treated to resist static charge build-up and can be used effectively and efficiently when conditions are likely to produce static arcing—such as when relative humidity is low (below 20%) or when temperatures fall below freezing
- Absorb up to twice as much oil and flammable liquid by weight as standard melt-blown static resistant sorbents—on land and on water
- Results in less sorbent waste, lower cleanup costs, and less time spent cleaning up spills



3M™ Petroleum Sorbent Static Resistant Pads, High Capacity, HP-556, HP-557

- Designed specifically to be used for the safe cleanup of highly flammable petroleum-based liquids
- Specially treated to resist static charge build-up and can be used effectively and efficiently when conditions are likely to produce static arcing—such as when relative humidity is low (below 20%) or when temperatures fall below freezing
- Absorb up to twice as much oil and flammable liquid by weight as standard melt-blown static resistant sorbents—on land and on water
- Results in less sorbent waste, lower cleanup costs, and less time spent cleaning up spills



Chemical Sorbents



3M™ Chemical Sorbent Folded C-FL550DD, High Capacity

- Easy-to-use for emergency response situations
- Four sorbents in one. It can be used as a boom, pillow, pad, or roll, allowing you to stock just one product for emergency response
- Perforations every 16 inches allow you to select the length you need, so there will be less wasted sorbent
- Made from chemically inert polypropylene material—recommended for use with chemicals such as acids and bases as well as aqueous- or hydrocarbon-based fluids
- Comes in a handy dispenser box for easy, on-site storage and improved response time
- Uses 3M's high-capacity sorbent technology—increased fluid-holding capacity which means less sorbent is used and there's less sorbent waste for disposal
- Includes directions for sorbent use right on the box



3M™ Chemical Sorbent Pads C-PD914DD, High Capacity

- Ideal for cleaning up small spills and wiping down contaminated areas. Twenty-five pads per dispenser box
- Highly absorbent and non-granular, pads feature a low-profile design so they can be easily placed in tight areas



3M™ Chemical Sorbent Rolls, High Capacity C-RL15150DD, C-RL38150DD

- Designed to cover large surfaces, rolls can be easily cut to cover small areas or fit tight corners
- Can be used to cover bench tops in anticipation of a spill while also acting as a work surface
- Available in two convenient widths—15 and 38 inches.

SUGGESTED APPLICATIONS

- Cleaning up hazardous chemical spills, drips, and leaks
- Ideal for rapid response containment and cleanup
- Hazardous material shipping
- Cover bench tops in anticipation of a spill
- Wiping up contaminated areas





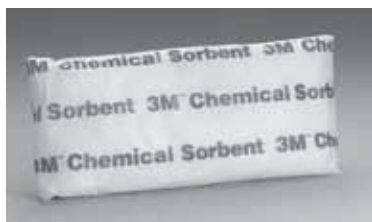
3M™ Chemical Sorbent Mini-Booms P-200, P-208, P-212

- Ideal for placing around hazardous liquid spills to prevent them from spreading
- They work quickly, giving you time to ensure proper cleanup while reducing employee exposure



3M™ Chemical Sorbent Rolls P-130, P-190, P-380

- Designed with quick and easy response in mind
- Rolls come in 13, 19 and 38 inch widths, and each is 100 feet long



3M™ Chemical Sorbent Pillow P-300

- Can be placed quickly at the source of a leak or thrown into the contained spill, helping to save hours of cleanup time
- Small, lightweight pillows feature a high capacity for holding liquid



3M™ Chemical Sorbent Particulate P-500

- Particulate materials can be used in packaging applications where breakage of a container could cause a release of a hazardous liquid
- Material may also be sprinkled over a spill or broadcast over a large area
- A non-selective sorbent that will “sorb” most aggressive chemicals and is designed for use in spill response applications



3M™ Chemical Sorbent Pads P-110

- Designed with quick and easy response in mind
- Pads are a convenient 11 inches by 13 inches in size
- Packaged in convenient dispenser boxes, they can be stored in confined spaces or mounted on the wall near where spills may occur
- Fifty pads per dispenser box

3M™ Chemical Sorbent Spill Kits and Response Pack

- Chemical folded sorbent spill kits are the perfect solution for emergency response flexibility. With all of the features of 3M folded sorbent, they can be used with most hazardous liquids
- Compact for easy storage—ideal for rapid response
- The 31-gallon spill kit is packed in an element-resistant 20-gallon drum, which is color coded yellow for easy identification





3M™ Chemical Sorbent Folded Spill Kit C-SKFL5, Chemroll, 5 Gallon

Contents

- 3 rolls Chemroll Chemical Sorbent Folded per case
- Each Chemroll is 5" x 26' with perforations every 16" (19" x 26' fully opened)
- Comes complete with one temporary disposal bag and tie
- It can be squeezed and molded into confined areas such as behind truck seats and in the trunks of cars
- Encased in a clear plastic shrink wrap, it resists damage from exposure
- Center dispense option allows you to use only the amount you need, leaving the rest enclosed for future use



3M™ Chemical Sorbent Folded Spill Kit C-SKFL31, 31 Gallon

Contents

- 2 rolls of Chemical Sorbent Folded (C-FL550DD); each roll is 5" x 50' folded (19" x 50' fully opened)
- 30 Chemical Sorbent Pads (C-PD1719DD); each pad is 17" x 19"
- 3 temporary disposal bags and ties
- 1 yellow 20-gallon drum with lid and plastic closure ring



3M™ Chemical Sorbent Spill Response Pack SRP-Chem

- Designed for use in laboratories, shipping docks or other areas where hazardous chemicals are shipped, stored or transferred
- Compact size for convenient storage
- Ideal for spills up to 3.5 gallons
- Contains 3 chemical sorbent mini-booms and 10 chemical sorbent pads
- Includes poly bag for temporary storage of used sorbents
- Use instructions included on inside of carrying case
- Outside of carrying case functions as a warning sign

3M™ Petroleum Sorbent Spill Kits and Response Pack

- These folded sorbent spill kits combine all the features of 3M folded sorbents in two convenient sizes of 5 and 31 gallons
- Easy storage—ideal for rapid response
- The 31-gallon spill kit is packed in an element-resistant 20-gallon drum, which is color coded white for easy identification





3M™ Petroleum Sorbent Spill Kit P-SKFL5, Petroll, 5 Gallon

Contents

- 3 rolls Petroll Petroleum Sorbent Folded per case
- Each Petroll is 15" x 26' with perforations every 16" (19" x 26' fully opened) and comes complete with one temporary disposal bag and tie



3M™ Petroleum Sorbent Spill Kit P-SKFL31, 31 Gallon

Contents

- 2 rolls of Petroleum Sorbent Folded (P-FL550DD); each roll is 5" x 50' folded (19" x 50' fully opened)
- 30 Petroleum Sorbent Pads (HP-156); each pad is 17" x 19"
- 3 temporary disposal bags and ties
- 1 white, 20-gallon drum with lid and plastic closure ring



3M™ Petroleum Sorbent Spill Response Pack SRP-PETRO

- Designed to quickly absorb and contain small petroleum spills and leaks
- Compact size; convenient for trucks, shipping departments and for areas of oil transfer
- High absorbency; absorbs up to 4 gallons of petroleum based liquids
- Contains 3 mini-booms and 5 highly absorbent pads to clean up small spills
- Includes poly bag for temporary storage of used sorbents
- Use instructions included on inside of carrying case
- Outside of carrying case functions as a warning sign

⚠ WARNING

Failure to properly handle and dispose of sorbents contaminated by hazardous materials can result in serious physical injury or death and/or environmental harm. For proper handling, consult the Material Safety Data Sheet for the material absorbed, applicable safety and health standards, contact your supervisor, or call 3M OH&ESD Technical Service in the USA at 1-800-243-4630. In Canada, call 1-800-267-4414

Specifications and Ordering Information for 3M™ Sorbent Products

Product Number	UPC (051138-)	Description	Size	Packaging	Case Qty.
C-FL550DD	464962	Chemical Sorbent Folded	50' Roll	—	3
C-SKFL5	071754**	Chemroll 5 Gal Chemical Spill Kit		3 kits/case	3
M-FL550DD	071723**	Maintenance Sorbent Folded	50' Roll	—	3
M-RGC36300E	29002	Sorbent Rug	36" x 300"	—	1
M-RGC36100E	29003	Sorbent Rug W/Coating	36" x 100"	—	1
P-FL550DD	071730**	Petroleum Sorbent Folded	50' Roll	—	3
P-SKFL5	46289	Petrol 5 Gal Petroleum Spill Kit		3 kits/case	3
T-100	16047*	General Purpose Oil Sorbent Roll	8" x 144' (84 gal./roll)	1 roll/bale	1
T-12	21356	Oil Only Sorbent Mini-Booms	3" dia x 12' (2 gal./boom)	4 mini-booms/case	1
T-126	16048	General Purpose Oil Sorbent Sweep	21" x 100' (25 gal./sweep)	1 sweep/bale	1
T-151	16049	General Purpose Oil Sorbent Pads	17" x 19" (43.5 gal./bale)	200 pads/bale	1
T-156	16050	General Purpose Oil Sorbent Pads	17" x 19" (40.5 gal./bale)	100 pads/bale	1
T-157	160516*	General Purpose Oil Sorbent Pads	34" x 38" (81 gal./bale)	50 pads/bale	1
T-190	21648	General Purpose Oil Sorbent Roll	19" x 144' (42 gal./roll)	1 roll/bale	1
M-RL33150DD	29070	High Cap. Maintenance Sorbent Roll	33" x 150' (66 gal./case)	1 roll/case	1
M-RL38150DD	071679**	High Cap. Maintenance Sorbent Roll	38" x 150' (76 gal./case)	1 roll/case	1
C-SKFL31	46287	Chemical Spill Kit	(31 gal./kit)	—	1
P-SKFL31	46286	Petroleum Spill Kit	(31 gal./kit)	—	1
SRP-CHEM	28910	Chemical Spill Pack	(3.5 gal./case)	3 packs/case	1
SRP-PETRO	28950	Petroleum Spill Pack	(4 gal./case)	3 packs/case	1
T-240	16053*	General Purpose Oil Sorbent Pillows	5" x 14" x 25" (3.5 gal./pillow)	10 pillows/bale	1
T-270	16054*	General Purpose Oil Sorbent Booms	8" dia x 10' (20 gal./boom)	4 booms/bale	1
T-280	16085*	General Purpose Oil Sorbent Booms	4" dia x 10' (10 gal./boom)	4 double booms/bale	1
T-30	21545	Oil Only Sorbent Mini-Pillows	7" x 15" (0.5 gal./pillow)	16 pillows/case	1
T-4	21354	Oil Only Sorbent Mini-Booms	3" dia x 4' (1 gal./boom)	12 mini-booms/case	1
T-8	21355	Oil Only Sorbent Mini-Booms	3" dia x 8' (2 gal./boom)	6 mini-booms/case	1
HP-100	289904	High Performance Oil Sorbent Roll	38" x 144' (73 gal./roll)	1 roll/bale	1
HP-156	289916	High Performance Oil Sorbent Pads	17" x 19" (37.5 gal./case)	100 pads/case	1
HP-157	29116	High Performance Oil Sorbent Pads	34" x 38" (75 gal./case)	50 pads/case	1

*UPC Prefix 021200-

**UPC Prefix 051131-



Specifications and Ordering Information for 3M™ Sorbent Products, Cont.

Product Number	UPC (051138-)	Description	Size	Packaging	Case Qty.
HP-255	289923	High Performance Oil Sorbent Pads	17" x 19" (33 gal./case)	50 pads/case	1
HP-256	289930	High Performance Oil Sorbent Pads	17" x 19" (66 gal./case)	100 pads/case	1
P-DC22DD	29234	22 Petroleum Drum Cover w/55 gal Drum Skirt	(19 gal./case)	25/case	1
HP-500	29067	Static Resistant Oil Sorbent Roll	38" x 144' (73 gal./bale)	1 roll/bale	1
HP-556	29068***	Static Resistant Oil Sorbent Pads	17" x 19" (37.5 gal./bale)	100 pads/case	1
HP-557	29069	Static Resistant Oil Sorbent Pads	34" x 38" (75 gal./bale)	50 pads/case	1
C-PD914DD	29096	High Capacity Chemical Sorbent Pads	9.25" x 14.5" (23.5 gal./case)	150 pads/case	1
C-RL15150DD	29097	High Capacity Chemical Sorbent Roll	15.25" x 150' (31 gal./case)	1 roll/case	1
C-RL38150DD	29098	High Capacity Chemical Sorbent Roll	38" x 150' (76 gal./case)	1 roll/case	1
P-110	17593	Universal Chemical Sorbent Pads	11" x 13" (17 gal./case)	200 pads/case	1
P-130	17594	Universal Chemical Sorbent Roll	13" x 100' (19 gal./case)	2 rolls/case	1
P-190	09095	Universal Chemical Sorbent Roll	9" x 100' (28 gal./case)	2 rolls/case	1
P-200	17596	Universal Chemical Sorbent Mini-Booms	3" dia x 4' (12 gal./case)	12 mini-booms/case	1
P-208	21343	Universal Chemical Sorbent Mini-Booms	3" dia x 8' (12 gal./case)	6 mini-booms/case	1
P-212	21344	Universal Chemical Sorbent Mini-Booms	3" dia x 12' (12 gal./case)	4 mini-booms/case	1
P-300	17597	Universal Chemical Sorbent Pillows	7" x 15" (0.5 gal./case)	16 pillows/case	1
P-380	21345	Universal Chemical Sorbent Roll	38" x 100' (28 gal./case)	1 roll/case	1
P-500	17598	Universal Chemical Sorbent Chopped	12 lbs. (14 gal./bag)	1 bag/case	1
M-DC22DD	28998	22" Chemical Drum Cover w/55 gal Drum Skirt	(19 gal./case)	25/case	1
M-MB304	21526	High Cap. Maintenance Sorbent Mini-Booms	3" x 4' (12 gal./case)	12 mini-booms/case	1
M-MB308	21527	High Cap. Maintenance Sorbent Mini-Booms	3" x 8' (12 gal./case)	6 mini-booms/case	1
M-MB312	21528	High Cap. Maintenance Sorbent Mini-Booms	3" x 12' (12 gal./case)	4 mini-booms/case	1
M-PD1520DD	071648**	High Cap. Maintenance Sorbent Pads	15.5" x 20.5" (37.5 gal./case)	100 pads/case	1
M-PD720GG	071655**	Maintenance Sorbent Production Pads	7.5" x 20.5" (31.5 gal./case)	100 pads/case	1
M-PL715	21531	High Cap. Maintenance Sorbent Pillows	7" x 15" (8 gal./case)	16 pillows/case	1
M-RL15150DD	071662**	High Cap. Maintenance Sorbent Roll	15.5" x 150' (31 gal./case)	1 roll/case	1

*UPC Prefix 021200-

**UPC Prefix 051131-

***UPC Prefix 051139-



3M™ PanelSafe™ Lockout System

The 3M PanelSafe lockout system is designed to reliably isolate electrical circuits, effectively “locking out” the circuit for the servicing and maintenance of machines, lighting and equipment. This device is permanently mounted to the dead front of a circuit breaker panel that allows individual or multiple circuits to be locked off simultaneously. The use of 3M PanelSafe increases safety while helping meet applicable OSHA regulations.



HOW TO READ 3M PANEL SAFE PRODUCT NUMBERS

PanelSafe – PS - 07 03

07= Breaker Spacing (Measurement 1)	03= Number of Breaker Slots on One Side (Measurement 2)
07 = 3/4"	03 = 3 slots
10 = 1"	04 = 4 slots
12 = 1-1/4"	05 = 5 slots
13 = 1-3/8"	
15 = 1-1/2"	21 = 21 slots

The first two digits correspond to the breaker spacing and the last two digits correspond to the number of breaker slots.

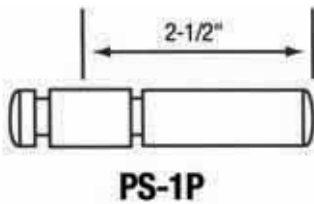
PANELSAFE LOCKOUT SYSTEM

FEATURES	ADVANTAGES	BENEFITS
Pre-drilled mounting holes	Fastens directly to the service panel dead front using self-tapping screws	Helps save time Helps increase productivity
Energy isolating lockout pins store in a holding device attached to the dead front	Authorized users need only carry their lock and tag	Helps increase productivity Helps save time Helps save money
The entire assembly stores behind the panel door	Makes accessibility easier	Helps increase safety Helps increase productivity Helps save time
Pre-spaced slot design corresponds to center of breaker handles	Easy installation on all brands and models eliminates the need to carry different lock-out devices to fit different panels	Helps save time Helps increase productivity Helps reduce inventory
Permanent installation	Authorized users need only carry their lock and tag	Helps increase safety Helps increase productivity Helps save time Helps save money
Fastens directly to the service panel dead front	The panel door need not be removed for installation	Helps save time Helps increase productivity

Standard 3M™ PanelSafe Unit

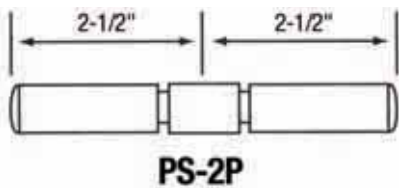
A standard 3M PanelSafe unit varies in length, number of slots, and covers according to part number required. Each 3M PanelSafe unit is packaged to include: 1 pin holder; 2 one way pins; 1 two way pin; 1 hook pin; bracket assembly screws and instruction sheet.

3M™ PanelSafe™ Lockout System Accessories



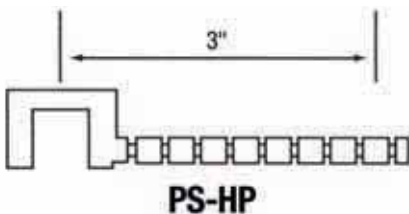
One Way Pin

A one way pin is used to lockout an individual circuit located on either the left or right side of the panel. Available 5 per package, or bulk 15 per package.



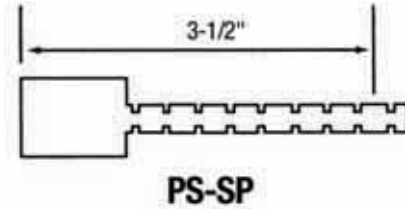
Two Way Pin

A two way pin is used to lockout two circuits directly opposite each other. Available 5 per package, or bulk 15 per package.



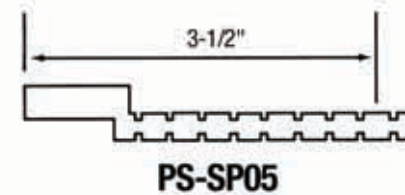
Hook Pin

The hook pin can be used to secure “on” individual circuits (i.e. dedicated passive circuits), or to lockout individual circuits from either the left or right side of the panel. Available 5 per package, or bulk 15 per package.



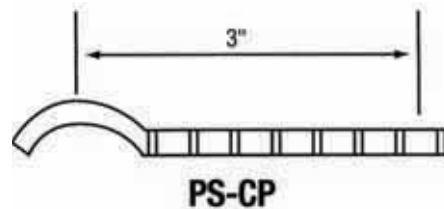
PS-SP Spade Pin

A spade pin is used to lockout on either the left or right side of the panel when the measured distance from the center line of the dead front to the max position on the breaker handle in the off position is greater than 2 1/2". Available 5 per package, or bulk 15 per package.



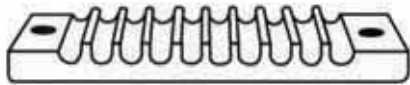
PS-SP05 Half-size Spade Pin

The half-size spade pin is used to lockout half-size (twin or piggyback) breakers. This pin can lockout an individual circuit by simply rotating the pin 180° for either the top or the bottom breaker. Available 5 per package, or bulk 15 per package.



Cup Pin

The cup pin is used to secure “on” individual circuits (i.e. dedicated circuits) located on either the left or right side of the panel. Available 5 per package, or bulk 15 per package.

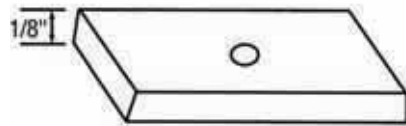


PS-PH

Pin Holder

Stores all pins, (except main breaker pin) at each panel location for easy access when lockout functions are required.

3M offers various shims and brackets, so the PanelSafe Lockout System can be used even if the panel front is not flat.



PS-SH1

Standard Shim

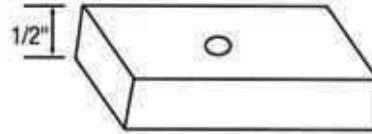
On distribution panels where the body of each breaker extends out beyond the level of the dead front, the standard shim is used to raise the surface, where a 3M™ PanelSafe unit is mounted, level with the body of each breaker. Available only in pairs.



PS-SH2

Slotted Shim

On distribution panels where a raised, rounded bead runs down the center of the dead front; the slotted shim mounts over this bead. Primarily GE panels. Provides a flat surface to mount PanelSafe unit. Available only in pairs.

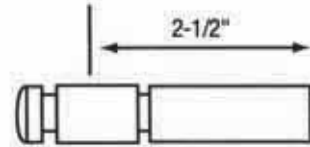


PS-SH3

1/2" Shim

On distribution panels where the body of each breaker extends out beyond the level of the dead front. The 1/2" shim is used to raise the surface where a PanelSafe unit is mounted, level with the body of each breaker. Available only in pairs.

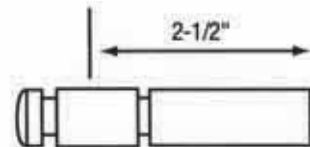
3M™ PanelSafe™ Lockout System Accessories



PS-1P

V-Notch Shim

Used on distribution panels that have a V-Notch extending down the length of the dead front, primarily ITE panels. Available only in pairs.



PS-1P

Offset Brackets

Used in conjunction with a PanelSafe unit when breakers are recessed below the dead front and no area is available to mount a PanelSafe unit by standard means. Available only in pairs.

Specifications and Ordering Information for 3M™ PanelSafe™ Lockout System

Product Number	UPC (054007-)	Description	Unit of Measure
PS-0703	44539	3/4" spacing; 3 slots	each
PS-0704	44540	3/4" spacing; 4 slots	each
PS-0705	44541	3/4" spacing; 5 slots	each
PS-0706	44542	3/4" spacing; 6 slots	each
PS-0707	44543	3/4" spacing; 7 slots	each
PS-0708	44544	3/4" spacing; 8 slots	each
PS-0709	44545	3/4" spacing; 9 slots	each
PS-0710	44546	3/4" spacing; 10 slots	each
PS-0711	44547	3/4" spacing; 11 slots	each
PS-0712	44548	3/4" spacing; 12 slots	each
PS-0713	44549	3/4" spacing; 13 slots	each
PS-0714	44550	3/4" spacing; 14 slots	each
PS-0715	44551	3/4" spacing; 15 slots	each
PS-0716	44552	3/4" spacing; 16 slots	each
PS-0717	44553	3/4" spacing; 17 slots	each
PS-0718	44554	3/4" spacing; 18 slots	each
PS-0719	44555	3/4" spacing; 19 slots	each
PS-0720	44556	3/4" spacing; 20 slots	each
PS-0721	44557	3/4" spacing; 21 slots	each
PS-1003	44558	1" spacing; 3 slots	each
PS-1004	44559	1" spacing; 4 slots	each
PS-1005	44560	1" spacing; 5 slots	each
PS-1006	44561	1" spacing; 6 slots	each
PS-1007	44562	1" spacing; 7 slots	each
PS-1008	44563	1" spacing; 8 slots	each
PS-1009	53058*	1" spacing; 9 slots	each
PS-1010	53059*	1" spacing; 10 slots	each
PS-1011	44567	1" spacing; 11 slots	each
PS-1012	44568	1" spacing; 12 slots	each
PS-1013	44569	1" spacing; 13 slots	each
PS-1014	44570	1" spacing; 14 slots	each
PS-1015	44571	1" spacing; 15 slots	each
PS-1016	44572	1" spacing; 16 slots	each
PS-1017	44573	1" spacing; 17 slots	each
PS-1018	44574	1" spacing; 18 slots	each
PS-1019	44575	1" spacing; 19 slots	each

Specifications and Ordering Information for 3M™ PanelSafe™ Lockout System, Cont.

Product Number	UPC (054007-)	Description	Unit of Measure
PS-1020	44576	1" spacing; 20 slots	each
PS-1021	44577	1" spacing; 21 slots	each
PS-1203	44578	1-1/4" spacing; 3 slots	each
PS-1204	44579	1-1/4" spacing; 4 slots	each
PS-1205	44580	1-1/4" spacing; 5 slots	each
PS-1206	44581	1-1/4" spacing; 6 slots	each
PS-1207	44582	1-1/4" spacing; 7 slots	each
PS-1208	44583	1-1/4" spacing; 8 slots	each
PS-1209	44584	1-1/4" spacing; 9 slots	each
PS-1210	44585	1-1/4" spacing; 10 slots	each
PS-1211	44586	1-1/4" spacing; 11 slots	each
PS-1212	44587	1-1/4" spacing; 12 slots	each
PS-1213	44588	1-1/4" spacing; 13 slots	each
PS-1214	44589	1-1/4" spacing; 14 slots	each
PS-1215	44590	1-1/4" spacing; 15 slots	each
PS-1216	44591	1-1/4" spacing; 16 slots	each
PS-1217	44592	1-1/4" spacing; 17 slots	each
PS-1218	44593	1-1/4" spacing; 18 slots	each
PS-1219	44594	1-1/4" spacing; 19 slots	each
PS-1303	44595	1-3/8" spacing; 3 slots	each
PS-1304	44596	1-3/8" spacing; 4 slots	each
PS-1305	44597	1-3/8" spacing; 5 slots	each
PS-1306	44598	1-3/8" spacing; 6 slots	each
PS-1307	44599	1-3/8" spacing; 7 slots	each
PS-1308	44600	1-3/8" spacing; 8 slots	each
PS-1309	44601	1-3/8" spacing; 9 slots	each
PS-1310	44602	1-3/8" spacing; 10 slots	each
PS-1311	44603	1-3/8" spacing; 11 slots	each
PS-1312	44604	1-3/8" spacing; 12 slots	each
PS-1313	44605	1-3/8" spacing; 13 slots	each
PS-1314	44606	1-3/8" spacing; 14 slots	each
PS-1315	44607	1-3/8" spacing; 15 slots	each
PS-1316	44608	1-3/8" spacing; 16 slots	each
PS-1317	44609	1-3/8" spacing; 17 slots	each
PS-1318	44610	1-3/8" spacing; 18 slots	each
PS-1503	44611	1-1/2" spacing; 3 slots	each

* UPC prefix 051128-

Specifications and Ordering Information for 3M™ PanelSafe™ Lockout System, Cont.

Product Number	UPC (054007-)	Description	Unit of Measure
PS-1504	44612	1-1/2" spacing; 4 slots	each
PS-1505	44613	1-1/2" spacing; 5 slots	each
PS-1506	44614	1-1/2" spacing; 6 slots	each
PS-1507	44615	1-1/2" spacing; 7 slots	each
PS-1508	44616	1-1/2" spacing; 8 slots	each
PS-1509	44617	1-1/2" spacing; 9 slots	each
PS-1510	44618	1-1/2" spacing; 10 slots	each
PS-1511	44619	1-1/2" spacing; 11 slots	each
PS-1512	44620	1-1/2" spacing; 12 slots	each
PS-1513	44621	1-1/2" spacing; 13 slots	each
PS-1514	44622	1-1/2" spacing; 14 slots	each
PS-1515	44623	1-1/2" spacing; 15 slots	each
PS-MB	44624	Main Breaker Lockout Set	each
PS-BK	44625	Expanding Bracket for PS-MB	each
PS-BS	44626	Brace for PS-MB (2 per pack)	pack
PS-MP	44627	Pin for MB	each
PS-OB1	44628	Offset Bracket for Side Mounting (2 per pack)	pack
PS-1P	44630	1 Way Pin (5 per pack)	pack
PS-OB2	44629	Offset Bracket for Side Mounting (2 per pack)	pack
PS-1P-B	44631	1 Way Pin—Bulk Pack (15 per pack)	pack
PS-2P	44632	2 Way Pin (5 per pack)	pack
PS-2P-B	44633	2 Way Pin—Bulk Pack (15 per pack)	pack
PS-SP	44634	Spade Pin (5 per pack)	pack
PS-SP-B	44635	Spade Pin—Bulk Pack (15 per pack)	pack
PS-SP05	44636	Spade Pin for Half-Size Breakers (5 per pack)	pack
PS-HP	44637	Hook Pin (5 per pack)	pack
PS-HP-B	44638	Hook Pin—Bulk Pack (15 per pack)	pack
PS-CP	44639	Cup Pin (5 per pack)	pack
PS-SH1	53000*	Standard 1/8" High Shim (2 per pack)	pack
PS-SH2	53001*	Slotted Shim for Beaded Dead Fronts (2 per pack)	pack
PS-SH3	53002*	1/2" High Shim for Raised Breakers (2 per pack)	pack
PS-SH4	53003*	V-Notch Shim for Panels w/Groove (2 per pack)	pack
PS-PH	53427*	Pin Holder	each

* UPC prefix 051128-

Barricade Tapes

Product Description:

The Scotch® Barricade Tapes 300 are not only effective but economical as well—with 300 and 1,000 feet of tape per roll. One roll has sufficient length to designate a large area. It is constructed of durable polyethylene plastic and measures 3 or 4 mils thick, which helps prevent accidental tearing. Bold 2-inch black characters on a bright yellow or red background are designed to attract attention and provide a clearly visible warning message.

Product Features

- Durable polyethylene plastic
- Attractive price
- Bold 2" letters
- Long roll length

Benefits

- Resists tears
- Easy to see; attracts attention
- Lower application cost
- Applicable in both small and large areas
















Scotch Barricade Tapes 300











Scotch® Barricade Tapes 300 Series

Scotch® Barricade Tapes 300 Series are not only effective but economical as well. One roll has sufficient length to designate a large area and the Buried Barricade Tape rolls are also available in both 3" and 6" widths. The tapes are constructed of durable polyethylene plastic that prevents accidental tearing. Bold 2-inch black characters on bright background are designed to attract attention and provide a warning message that is clearly visible. Available in different sizes and with different warning messages.

Specifications for Scotch® Barricade Tapes 300 Series

Product Number	Description	Dimensions	Background	Legend	
Scotch® Buried Barricade Tapes					
302	Scotch® Buried Barricade Tape 302 CAUTION BURIED ELECTRIC LINE, Red	3" x 1000' x 0.004 in. (7.6 cm x 304.8 m x 0.102 mm)	Red	Caution Buried Electric Line Below	
303	Scotch® Buried Barricade Tape 303 CAUTION BURIED ELECTRIC LINE BELOW, Red	3" x 300' x 0.004 in. (7.6 cm x 91.4 m x 0.102 mm)	Red	Caution Buried Electric Line Below	
363	Scotch® Buried Barricade Tape 363 CAUTION HIGH VOLTAGE CABLE BURIED BELOW, Red	3" x 1000' x 0.004 in. (7.6 cm x 304.8 m x 0.102 mm)	Red	Caution High Voltage Cable Buried Below	
364	Scotch® Buried Barricade Tape 364 CAUTION BURIED ELECTRIC LINE BELOW, Yellow	3" x 1000' x 0.004 in. (7.6 cm x 304.8 m x 0.102 mm)	Yellow	Caution Buried Electric Line Below	
365	Scotch® Buried Barricade Tape 365 CAUTION BURIED FIBER OPTIC LINE BELOW, Orange	3" x 1000' x 0.004 in. (7.6 cm x 304.8 m x 0.102 mm)	Orange	Caution Buried Fiber Optic Line Below	
366	Scotch® Buried Barricade Tape 366 CAUTION BURIED CABLE TV LINE BELOW, Orange	3" x 1000' x 0.004 in. (7.6 cm x 304.8 m x 0.102 mm)	Orange	Caution Buried Cable TV Line Below	
367	Scotch® Buried Barricade Tape 367 CAUTION BURIED TELEPHONE LINE BELOW, Orange	3" x 1000' x 0.004 in. (7.6 cm x 304.8 m x 0.102 mm)	Orange	Caution Buried Telephone Line Below	
368	Scotch® Buried Barricade Tape 368 CAUTION BURIED ELECTRIC LINE BELOW, Red	6" x 1000' x 0.004 in. (15.2 cm x 304.8 m x 0.102 mm)	Red	Caution Buried Electric Line Below	
369	Scotch® Buried Barricade Tape 369 CAUTION HIGH VOLTAGE CABLE BURIED BELOW, Red	6" x 1000' x 0.004 in. (15.2 cm x 304.8 m x 0.102 mm)	Red	Caution High Voltage Cable Buried Below	
370	Scotch® Buried Barricade Tape 370 CAUTION BURIED ELECTRIC LINE BELOW, Yellow	6" x 1000' x 0.004 in. (15.2 cm x 304.8 m x 0.102 mm)	Yellow	Caution Buried Electric Line Below	
371	Scotch® Buried Barricade Tape 371 CAUTION BURIED FIBER OPTIC LINE BELOW, Orange	6" x 1000' x 0.004 in. (15.2 cm x 304.8 m x 0.102 mm)	Orange	Caution Buried Fiber Optic Line Below	
372	Scotch® Buried Barricade Tape 372 CAUTION BURIED CABLE TV LINE BELOW, Orange	6" x 1000' x 0.004 in. (15.2 cm x 304.8 m x 0.102 mm)	Orange	Caution Buried Cable TV Line Below	
373	Scotch® Buried Barricade Tape 373 CAUTION BURIED TELEPHONE LINE BELOW, Orange	6" x 1000' x 0.004 in. (15.2 cm x 304.8 m x 0.102 mm)	Orange	Caution Buried Telephone Line Below	

Specifications for Scotch® Barricade Tapes

Product Number	Description	Dimensions	Background	Legend	
300	Scotch® Barricade Tape 300 CAUTION, Yellow	3" x 1000' x 0.002 in. (7.6 cm x 304.8 m x 0.051 mm)	Yellow	Caution	
301	Scotch® Barricade Tape 301 CAUTION, Yellow	3" x 300' x 0.002 in. (7.6 cm x 91.4 m x 0.051 mm)	Yellow	Caution	
356	Scotch® Barricade Tape 356 DANGER, Red	3" x 300' x 0.002 in. (7.6 cm x 91.4 m x 0.051 mm)	Red	Danger	
357	Scotch® Barricade Tape 357 DANGER, Red	3" x 1000' x 0.002 in. (7.6 cm x 304.8 m x 0.051 mm)	Red	Danger	
358	Scotch® Barricade Tape 358 CAUTION HIGH VOLTAGE, Yellow	3" x 1000' x 0.002 in. (7.6 cm x 304.8 m x 0.051 mm)	Yellow	Caution High Voltage	
359	Scotch® Barricade Tape 359 CAUTION KEEP OUT, Yellow	3" x 1000' x 0.002 in. (7.6 cm x 304.8 m x 0.051 mm)	Yellow	Caution Keep Out	
360	Scotch® Barricade Tape 360 CAUTION OPEN TRENCH, Yellow	3" x 1000' x 0.002 in. (7.6 cm x 304.8 m x 0.051 mm)	Yellow	Caution Open Trench	
361	Scotch® Barricade Tape 361 CAUTION DO NOT ENTER, Yellow	3" x 1000' x 0.002 in. (7.6 cm x 304.8 m x 0.051 mm)	Yellow	Caution Do Not Enter	
362	Scotch® Barricade Tape 362 DANGER DO NOT ENTER, Red	3" x 1000' x 0.002 in. (7.6 cm x 304.8 m x 0.051 mm)	Red	Danger Do Not Enter	

Scotch® Detectable Buried® Barricade Tapes 400 Series

Scotch® Detectable Buried Barricade Tapes 400 Series are designed for accurately locating and helping prevent damage to valuable underground utility installations. The tapes have an aluminum backing, which helps make underground assets easier to find when using a non-ferrous locator. Properly installed, these tapes may help avoid catastrophically inaccurate digging when locating utilities such as electrical lines and communication cables.



Specifications for Scotch® Detectable Buried Barricade Tapes 400 Series

Product Number	Description	Dimensions	Background	Legend
406	Scotch® Detectable Buried Barricade Tape 406 CAUTION BURIED ELECTRIC LINE BELOW, Red	3 in. x 1000 ft. x 0.005 in. (7.6 cm x 304.8 m x 0.127 mm)	Red	Caution Buried Electric Line Below
407	Scotch® Detectable Buried Barricade Tape 407 CAUTION BURIED FIBER OPTIC LINE BELOW, Orange	3 in. x 1000 ft. x 0.005 in. (7.6 cm x 304.8 m x 0.127 mm)	Orange	Caution Buried Fiber Optic Line Below
408	Scotch® Detectable Buried Barricade Tape 408 CAUTION BURIED ELECTRIC LINE BELOW, Red	6 in. x 1000 ft. x 0.005 in. (15.2 cm x 304.8 m x 0.127 mm)	Red	Caution Buried Electric Line Below
409	Scotch® Detectable Buried Barricade Tape 409 CAUTION BURIED FIBER OPTIC LINE BELOW, Orange	6 in. x 1000 ft. x 0.005 in. (15.2 cm x 304.8 m x 0.127 mm)	Orange	Caution Buried Fiber Optic Line Below

Scotch® Repulpable Barricade Tapes 500 Series

Made of tightly woven cotton fibers, these reusable tapes are an excellent alternative to standard barricade tapes for areas where plastics are prohibited. Also appropriate for clean rooms and recycling areas, these non-conductive tapes measure 3" wide x 150' long and are supplied on rolls.

Scotch® Repulpable Barricade Tapes 500 Series

Product Number	Description	Dimensions	Background	Legend	
515	Scotch® Repulpable Barricade Tape 515 DANGER, Red	3" x 150' (7.6 cm x 45.7 m)	Red	Danger	
516	Scotch® Repulpable Barricade Tape 516 CAUTION, Yellow	3" x 150' (7.6 cm x 45.7 m)	Yellow	Caution	

Terminations

Glossary of Terminations Terms	263
Cable Types for Terminating	264
3M™ Cold Shrink QT-III Silicone Rubber Terminations	265
3M™ Cold Shrink Termination QT-III 69 kV/72,5 kV	270
3M™ Cold Shrink QT-II Indoor and Outdoor Terminations	283
Tape Terminations	291



3M™ Cold Shrink Terminations



Over 30 years ago, 3M pioneered cold shrink technology. Since then, field use and laboratory analysis have repeatedly proven its merits and reliability. Through constant innovation, we have refined cold shrink products making them better than ever. They're easier to apply and built to withstand even the most punishing environmental conditions. Enhanced performance at a lower installed cost continues to make 3M the preferred choice for cold shrink solutions.

3M™ Cold Shrink terminations QT-II and QT-III are designed using 3M developed track resistant silicone rubber and Hi-K stress control material in conjunction with 3M's unique Cold Shrink delivery system.

The QT-II and the QT-III are supplied prestretched on a removable core. Removal of the core (unwind) after positioning the termination allows the product to shrink into position, providing a tight seal.

3M Cold Shrink terminations offer easy installation and reliable performance when terminating indoor and outdoor medium voltage cable.

QT-II and QT-III Cold Shrink silicone rubber is specifically formulated as a high track resistant material with hydrophobicity (water repelling action) to ensure a long life expectancy.

These Cold Shrink terminations are lightweight for either free-hanging or bracket mounting arrangements.

3M offers you two options for choosing a Cold Shrink termination. The QT-III utilizes the latest technology with built-in Hi-K stress controlling mastic and silicone sealing mastic resulting in a much more user-friendly application. The QT-III offers many of the same advantages and benefits as the QT-II but requires fewer steps for the installation.

All terminations meet or exceed IEEE 48 requirements.

CHOOSING THE RIGHT TERMINATIONS.

QUESTIONS TO ASK YOURSELF BEFORE ORDERING A TERMINATING PRODUCT.

What is Voltage Rating? 5 kV___ 8 kV___ 15 kV___ 25/28 kV___ 35 kV___ 46 kV___ 69 kV___

What is Insulation Level? 100%___ 133%___

What is Conductor Size? _____ AWG/kcmil

What is Cable/Shielding Type? (tape, drain wire, UniShield® , LC Shielded, Jacketed Concentric Neutral, other)

What is Conductor Material? Copper_____ Aluminum (Al/Cu)_____

Where will the termination be mounted? Indoor___ Outdoor___ Cabinet Indoor___
Vented Cabinet Outdoor___ Heated Cabinet Outdoor___

Relieve
unwanted
stress



Glossary of Terminations Terms

CLASS 1 TERMINATION

Provides electric stress control for the cable insulation shield terminus; provides complete external leakage insulation between the cable conductor(s) and ground; and provides a seal to the end of the cable against the entrance of the external environment and maintains the operating design pressure, if any, of the cable system. This class is divided into three types:

Class 1A: For use on extruded dielectric cable

Class 1B: For use on laminated dielectric cable

Class 1C: Expressly for pressure-type cable systems

CLASS 2 TERMINATION

Provides electric stress control for the cable insulation shield terminus, and provides complete external leakage insulation between the cable conductor(s) and ground.

CLASS 3 TERMINATION

Provides electric stress control for the cable insulation shield terminus.

INDOOR TERMINATION—DRY

A termination intended for use where it is protected from solar radiation and precipitation and not subject to periodic condensation, or other excessive humidity (90% RH or more). May be installed in air conditioned or heated areas.

INDOOR TERMINATION—WET

A termination intended for use where it is protected from direct exposure to both solar radiation and precipitation, but is subjected to climatic conditions that can cause condensation onto the termination surfaces.

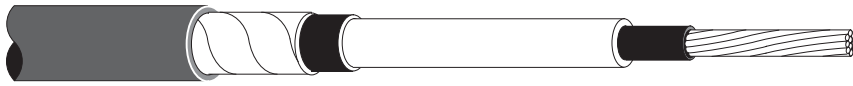
OUTDOOR TERMINATION

A termination intended for use where it is not protected from direct exposure to either solar radiation or precipitation. These are Class 1A, 1B, or 1C terminations. Class 2 terminations may also qualify.

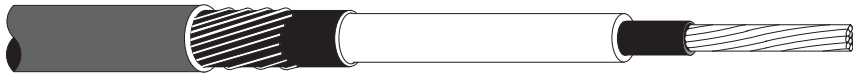
NOTE:

Some cables below 2 kV do not have an insulation shield. Terminations for such cables would not be required to provide electric stress control. In such cases, this provision would not be part of the definition.

Cable Types for Terminating



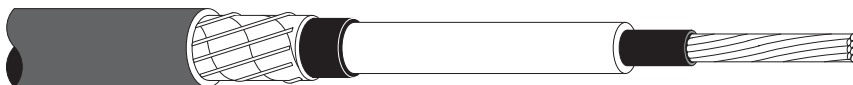
Tape Shielded Cable



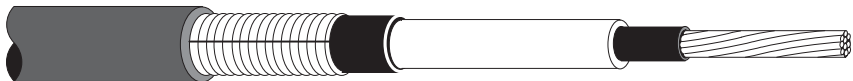
Wire Shielded Cable



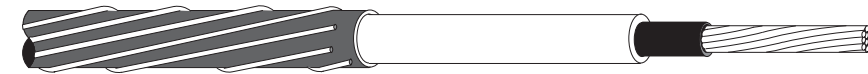
UniShield® Cable



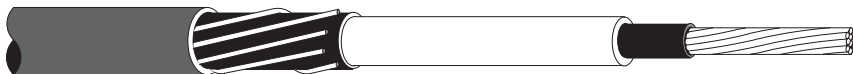
Wire Over Tape Shielded Cable



LC Shielded Cable



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable



Paper Insulated Lead Covered (PILC) Cable



Non-Shielded (Dry) Cable



Non-Shielded (Wet or Dry) Cable

3M™ Cold Shrink QT-III Silicone Rubber Terminations

Single Conductor

3M™ Cold Shrink QT-III terminations offer easy installation and reliable performance when terminating indoor and outdoor medium voltage cable. The unique step-core design combined with the built-in Hi-K stress control and silicone sealing compounds means simpler installation on all types of cable. The QT-III assures long-term reliability through an improved silicone rubber body with enhanced hydrophobic recovery. UV stability and track and erosion resistance. Plus its Hi-K stress control design delivers excellent BIL performance and lower surface stress resulting in a more compact termination. Through superior engineering, 3M Cold Shrink QT-III terminations deliver maximum performance.

Meets requirements of IEEE Standard 48-1996.



3M™ Cold Shrink QT-III Outdoor Termination

3M™ Cold Shrink QT-III Indoor Tubular Termination

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)					UPC (054007-)
			5 kV	8.7 kV	15 kV	25/28 kV	35 kV*	
			100% 133%	100% 133%	100% 133%	100% 133%	100% 133%	

SHIELDED CABLE KITS (EACH KIT MAKES THREE TERMINATIONS)

7620-T-95	95 kV	0.32-0.59" (8,2-15,0 mm)	8-4 —	8-6 —	— —	— —	— —	41758
7621-T-95	95 kV	0.44-0.89" (11,2-22,7 mm)	2-3/0 —	4-2/0 —	— —	— —	— —	41759
7622-T-95	95 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400 —	3/0-300 —	— —	— —	— —	
7624-T-95	95 kV	0.83-1.53" (21,1-38,9 mm)	500-750 —	350-750 —	— —	— —	— —	
7625-T-95	95 kV	1.05-1.80" (26,7-45,7 mm)	700-1500 —	600-1250 —	— —	— —	— —	
7622-T-110	110 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-3/0 (35-95 mm ²)	—	—	41760
7624-T-110	110 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	—	—	41761
7625-T-110	110 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	—	—	41762
7626-T-110	110 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (500-1000 mm ²)	—	—	41763
7693-T-150	150 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-70 mm ²)	41778
7695-T-150	150 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	3/0-600 (95-325 mm ²)	41779
7696-T-150	150 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (500-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)	41780

CONCENTRIC AND JACKETED CONCENTRIC CABLE KITS (EACH KIT MAKES ONE TERMINATION)

7642-T-110	110 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	—	—	41764
7644-T-110	110 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	—	—	41766
7645-T-110	110 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	—	—	41768
7646-T-110	110 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (500-1000 mm ²)	—	—	41770
7653-T-150	150 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-70 mm ²)	41772
7655-T-150	150 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	3/0-600 (95-325 mm ²)	41774
7656-T-150	150 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (500-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)	41776

HIGH FAULT CURRENT CABLE KITS (EACH KIT MAKES ONE TERMINATION)

7642-T-HSG-110	110 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	—	—	41765
7644-T-HSG-110	110 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	—	—	41767
7645-T-HSG-110	110 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	—	—	41769

3M™ Cold Shrink QT-III Indoor Tubular Termination

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)					UPC (054007-)
			5 kV	8.7 kV	15 kV	25/28 kV	35 kV*	
			100% 133%	100% 133%	100% 133%	100% 133%	100% 133%	
7646-T-HSG-110	110 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (500-1000 mm ²)	—	—	41771

HIGH FAULT CURRENT CABLE KITS CONTINUED (EACH KIT MAKES ONE TERMINATION)

7653-T-HSG-150	150 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-120 mm ²)	41773
7655-T-HSG-150	150 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	3/0-600 (95-325 mm ²)	41775
7656-T-HSG-150	150 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (500-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)	41777

*150 kV impulse level meets the impulse requirements for 35 kV class equipment where indoor terminations are used.

3M™ Cold Shrink QT-III Indoor Tubular Termination

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)					UPC (054007-)
			5 kV	8.7 kV	15 kV	25/28 kV	35 kV	

SHIELDED CABLE KITS (EACH KIT MAKES THREE TERMINATIONS)

7620-S-2	95 kV	0.32-0.59" (8,2-15,0 mm)	8-4	8-6	—	—	—	42168
7621-S-2	95 kV	0.44-0.89" (11,2-22,7 mm)	2-3/0	4-2/0	—	—	—	42169
7622-S-2	110 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	—	—	42170
7692-S-4	150 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	2-1/0 (35-50 mm ²)	—	42211
7693-S-4	150 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	—	42212
7694-S-4	150 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	2/0-250 (70-150 mm ²)	—	42213
7695-S-4	150 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (125-400 mm ²)	—	42214
7696-S-4	150 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	—	42215
7683-S-8	200 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-70 mm ²)	42465
7684-S-8	200 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	2/0-250 (70-150 mm ²)	2-4/0 (35-120 mm ²)	42466
7685-S-8	200 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (125-400 mm ²)	3/0-600 (95-325 mm ²)	42467
7686-S-8	200 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)	42468

CONCENTRIC AND JACKETED CONCENTRIC CABLE KITS (EACH KIT MAKES ONE TERMINATION)

7642-S-2	110 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	—	—	42011
7652-S-4	150 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	2-1/0 (35-120 mm ²)	—	42178
7653-S-4	150 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	—	42192

3M™ Cold Shrink QT-III Indoor Tubular Termination

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Conductor Size Range		Conductor Size Range AWG and kcmil (mm ²)			UPC (054007-)
			5 kV	8.7 kV	15 kV	25/28 kV	35 kV	
7654-S-4	150 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	2/0-250 (70-150 mm ²)	—	42203
7655-S-4	150 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	—	42208
7656-S-4	150 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	—	42210
7663-S-8	200 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-70 mm ²)	42433
7664-S-8	200 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	2/0-250 (70-150 mm ²)	2-4/0 (35-120 mm ²)	42447
7665-S-8	200 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	3/0-600 (95-325 mm ²)	42461
7666-S-8	200 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)	42463
HIGH FAULT CURRENT CABLE KITS (EACH KIT MAKES ONE TERMINATION)								
7652-S-HSG-4	150 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	2-1/0 (35-50 mm ²)	—	42171
7653-S-HSG-4	150 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	—	42185
7654-S-HSG-4	150 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	2/0-250 (70-150 mm ²)	—	42199
7655-S-HSG-4	150 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	—	42207
7656-S-HSG-4	150 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	—	42209
7663-S-HSG-8	200 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-70 mm ²)	42440
7664-S-HSG-8	200 kV	0.83-1.53" (21,1-38,9 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	2/0-250 (70-150 mm ²)	2-4/0 (35-120 mm ²)	42454
7665-S-HSG-8	200 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (125-400 mm ²)	3/0-600 (95-325 mm ²)	42462
7666-S-HSG-8	200 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)	42464
INVERTED KITS FOR SHIELDED CABLE (EACH KIT MAKES THREE TERMINATIONS)								
7622-S-INV-2	110 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	—	—	43016
7693-S-INV-4	200 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-70 mm ²)*	43017
7695-S-INV-4	200 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	350-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	3/0-600 (95-325 mm ²)*	43018
7696-S-INV-4	200 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (500-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)*	43019
INVERTED KITS FOR CONCENTRIC AND JACKETED CONCENTRIC CABLE (EACH KIT MAKES ONE TERMINATION)								
7642-S-INV-2	110 kV	0.64-1.08" (16,3-27,4 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	—	—	04622
7653-S-INV-4	200 kV	0.72-1.29" (18,3-32,8 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	2-2/0 (35-70 mm ²)*	04625
7655-S-INV-4	200 kV	1.05-1.80" (26,7-45,7 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	3/0-600 (95-325 mm ²)*	04623

3M™ Cold Shrink QT-III Indoor Tubular Termination

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)					UPC (054007-)
			5 kV	8.7 kV	15 kV	25/28 kV	35 kV	
7656-S-INV-4	200 kV	1.53-2.32" (38,9-58,9 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	700-1500 (400-725 mm ²)*	04624

3M™ Cold Shrink QT-III Silicone Rubber Termination with Top Insulator*

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Cable & Drop Wire O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)				UPC (054007-)
				5 kV	8.7 kV	15 kV	25/28 kV	
CONCENTRIC AND JACKETED CONCENTRIC CABLE KITS WITH TOP INSULATOR (EACH KIT MAKES ONE TERMINATION)								
7642-S-2-TI	110 kV	0.64-1.08" (16,3-27,4 mm)	0.97-1.48" (24,6-37,6 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	—	—
7652-S-4-TI	150 kV	0.64-1.08" (16,3-27,4 mm)	0.51-0.82" (12,9-20,8 mm)	4/0-400	3/0-300	2-4/0 (35-120 mm ²)	2-1/0 (35-50 mm ²)	43409
7653-S-4-TI	150 kV	0.72-1.29" (18,3-32,8 mm)	0.62-1.0" (15,7-25,4 mm)	300-500	250-500	2/0-300 (70-150 mm ²)	2-4/0 (35-120 mm ²)	43410
7654-S-4-TI	150 kV	0.83-1.53" (21,1-38,9 mm)	0.66-1.18" (16,7-30,0 mm)	500-750	350-700	4/0-500 (120-240 mm ²)	2/0-250 (70-150 mm ²)	43411
7655-S-4-TI	150 kV	1.05-1.80" (26,7-45,7 mm)	0.69-1.30" (17,5-33,0 mm)	700-1500	600-1250	500-1000 (240-500 mm ²)	250-800 (150-400 mm ²)	43412
7656-S-4-TI	150 kV	1.53-2.32" (38,9-58,9 mm)	1.05-1.94" (26,6-49,3 mm)	1750-2000	1500-2000	1250-2000 (625-1000 mm ²)	900-1750 (500-800 mm ²)	43413

*Top insulator is a cold shrink silicone rubber tube provided on a removable core for easy installation on a jumper wire. Provides additional circuit protection against animal damage (i.e. squirrels) and environmental corrosion.

3M™ Cold Shrink Termination QT-III 69 kV/72,5 kV

The 3M Cold Shrink Terminations 7672-S-8 Series QT-III are designed for use on 69 kV or 72,5 kV polymeric power cable. Because they are cold shrink, installers do not need to use a torch, and they are easy to install. The silicone insulator also makes them lightweight, so there is no need for a crane. Each kit includes instructions for Jacketed Concentric Neutral (JCN), Tape Shield (TS), Longitudinally Corrugated (LC), Tape over Wire (TOW) and Wire over Tape (WOT) cable constructions. The kits are packaged one termination per kit. Lugs must be purchased separately.



7672-S-8 Termination

- Accommodates cables with 650-mil (16.5 mm) insulation thickness
- Rated for 350 kV BIL performance levels
- Meets or exceeds the requirements of both IEEE 48, Class 1 for 69 kV and IEC 60840 for 72,5 kV terminations for outdoor applications

7672-S-8 (RW) Termination

- Accommodates cables with a reduced wall insulation thickness of 400 to 470-mil (10.2 to 11.9 mm)
- Rated for 325 kV BIL performance levels
- Meets or exceeds the requirements of IEC 60840 for 72,5 kV terminations for outdoor applications

Termination Selection Guide

Kit Part Number	Insulation Thickness in. (mm)	Primary Insulation OD Range in. (mm)	Jacket OD Range in. (mm)	Conductor Size Range by Cable Type kcmil (mm ²)			
				Tape Shield (TS)	Jacketed Concentric Neutral (JCN)*	Longitudinally Corrugated (LC/HSG)**	Tape over Wire or Wire over Tape (TOW or WOT)
7672-S-8	0.650" (16.5 mm)	1.94-3.08" (49.3-78.2 mm)	2.45-3.35" (62.2-85.1 mm)	250-1750 (120-850)	250-1750 (120-850)	250-1750 (120-850)	250-1000 (120-500)
7672-S-8 (RW)	0.400-0.470" (10.2-11.9 mm)	1.44-2.58" (36.6-65.5 mm)	1.95-3.11" (49.5-79.0 mm)	250-1750 (120-850)	250-2000 (120-1000)	250-1750 (120-850)	250-1000 (120-500)

* Can be used with Jacketed Concentric Neutral (JCN) Cables having a Jacket OD to 3.61" (91.7 mm) maximum.

**For Corrugated Armor Cables, please contact 3M Representative for sizing information.

The final determining factors governing product selection are Primary Insulation O.D. and Jacket O.D.

3M Three Conductor Cable Termination Kits QT-III

3M™ Three Conductor Cable Termination Kits 7600 Series are designed to terminate medium voltage power cables rated up to 35 kV. 7600-3G series kits are designed for three conductor cables with internal ground wires. 7600-3W series kits are designed for three conductor cables without internal ground wires. 7600-RJS series kits are designed for cabinet-mount installations and can be used on cables with, or without, internal ground wires.

Each termination kit has all of the materials required to make a three conductor termination (except lugs, which must be ordered separately).

Kit components include:

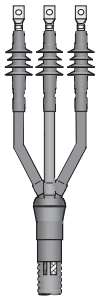
- Three QT-III Silicone Rubber Termination assemblies, tubular or skirted depending upon the termination environment and location
- Three four-foot RJS Silicone Rubber Rejacketing Sleeve assemblies
- The 7600-3G and 7600-3W Series kits also include a silicone rubber breakout boot



3M™ QT-III Silicone Rubber

Termination Type Selection Guide for 3M Three Conductor Cable 7600 Series

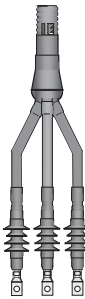
Kit Series	Insulator Configuration	Installation Environment	Orientation	For Cable Type(s) (With or Without Ground Wires)
7600-S-3G	Skirted	Outdoor	Normal	With ground wires
7600-T-3G	Tubular	Indoor	Normal	With ground wires
7690-S-INV-3G	Skirted	Outdoor	Inverted	With ground wires
7600-S-3-RJS	Skirted	Indoor-Cabinet Mount (No Breakout Boot)	Normal	With or without ground wires
7600-T-3-RJS	Tubular	Indoor-Cabinet Mount (No Breakout Boot)	Normal	With or without ground wires
7690-S-INV-3-RJS	Skirted	Indoor-Cabinet Mount (No Breakout Boot)	Inverted	With or without ground wires
7600-S-3W	Skirted	Outdoor	Normal	Without ground wires
7600-T-3W	Tubular	Indoor	Normal	Without ground wires
7690-S-INV-3W	Skirted	Outdoor	Inverted	Without ground wires



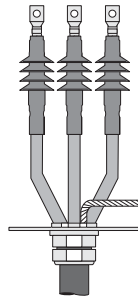
7600-S-3G



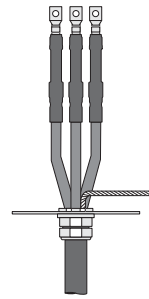
7600-T-3G



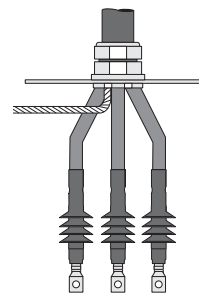
7690-S-INV-3G



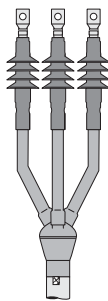
7600-S-3-RJS



7600-T-3-RJS



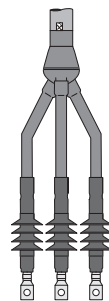
7690-S-INV-3-RJS



7600-S-3W

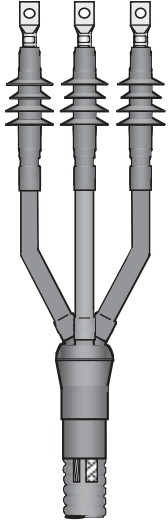


7600-T-3W



7690-S-INV-3W

7600-S-3G Series — Kit Selection Guide



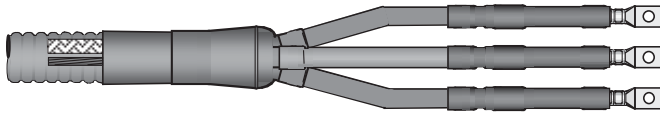
7600-S-3G

Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	BIL (kV)	Cable Insulation Range (inches)	Cable O.D. (inches)	5 kV (AWG/kcmil)		8.7 kV (AWG/kcmil)		15 kV (AWG/kcmil)		UPC (054007-)
				100%	133%	100%	133%	100%	133%	
				7620-S-2-3G	95	0.33-0.50"	2.20"	8-2	6-4	
7621-S-2-3G	95	0.50-0.70"	2.80"	1-3/0	2-2/0	2-2/0	2-2/0	2-1	-	43680
7622-S-2-3G	110	0.70-0.92"	3.30"	4/0-350	3/0-350	3/0-350	3/0-350	1/0-4/0	2-3/0	43681
7691-S-4-3G	150	0.50-0.70"	2.80"	1-3/0	2-2/0	2-2/0	2-2/0	2-1	-	43682
7692-S-4-3G	150	0.70-0.92"	3.30"	4/0-350	3/0-350	3/0-350	3/0-350	1/0-4/0	2-3/0	43683
7693-S-4-3G	150	0.92-1.18"	3.90"	400-500	400-500	400-500	400-500	250-350	4/0-350	43684
7695-S-4-3G	150	1.18-1.51"	4.50"	700-1000	700-1000	700-1000	700-1000	500-750	500-750	43685

Kit Number	BIL (kV)	Cable Insulation Range (inches)	Cable O.D. (inches)	25 kV (AWG/kcmil)		35 kV (AWG/kcmil)		UPC (054007-)
				100%	133%	100%	133%	
				7692-S-4-3G	150	0.70-0.92"	3.30"	
7693-S-4-3G	150	0.92-1.18"	3.90"	2/0-250	1-4/0	-	-	43684
7695-S-4-3G	150	1.18-1.51"	4.50"	350-500	250-500	-	-	43685
7684-S-8-3G	200	0.92-1.18"	3.90"	2/0-250	1-4/0	1/0-3/0	-	43686
7685-S-8-3G	200	1.18-1.51"	4.50"	350-500	250-500	4/0-500	1/0-350	43687

7600-T-3G Series — Kit Selection Guide



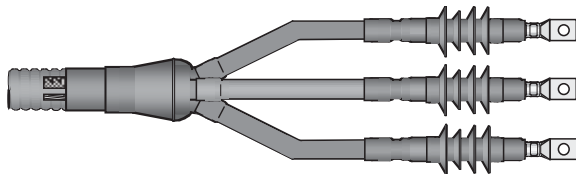
7600-T-3G

Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	BIL (kV)	Cable Insulation Range (inches)	Cable O.D. (inches)	5 kV (AWG/kcmil)		8.7 kV (AWG/kcmil)		15 kV (AWG/kcmil)		25 kV (AWG/kcmil)		35 kV* (AWG/kcmil)		UPC (054007-)
				100%	133%	100%	133%	100%	133%	100%	133%	100%	133%	
7620-T-95-3G	95	0.33-0.50"	2.20"	8-2	6-4	6-4	6-4	-	-	-	-	-	-	43664
7621-T-95-3G	95	0.50-0.70"	2.80"	1-3/0	2-2/0	2-2/0	2-2/0	-	-	-	-	-	-	43665
7623-T-95-3G	95	0.70-0.92"	3.30"	4/0-350	3/0-350	3/0-350	3/0-350	-	-	-	-	-	-	43666
7624-T-95-3G	95	0.92-1.18"	3.90"	400-500	400-500	400-500	400-500	-	-	-	-	-	-	43667
7625-T-95-3G	95	1.18-1.51"	4.50"	700-1000	700-1000	700-1000	700-1000	-	-	-	-	-	-	43668
7621-T-110-3G	110	0.50-0.70"	2.80"	1-3/0	2-2/0	2-2/0	2-2/0	2-1	-	-	-	-	-	43669
7622-T-110-3G	110	0.70-0.92"	3.30"	4/0-350	3/0-350	3/0-350	3/0-350	1/0-4/0	2-3/0	-	-	-	-	43670
7624-T-110-3G	110	0.92-1.18"	3.90"	400-500	400-500	400-500	400-500	250-350	4/0-350	-	-	-	-	43671
7625-T-110-3G	110	1.18-1.51"	4.50"	700-1000	700-1000	700-1000	700-1000	500-750	500-750	-	-	-	-	43673
7693-T-150-3G	150	0.70-0.92"	3.30"	4/0-350	3/0-350	3/0-350	3/0-350	1/0-4/0	2-3/0	1/0-4/0	-	-	-	43674
7694-T-150-3G	150	0.92-1.18"	3.90"	400-500	400-500	400-500	400-500	250-350	4/0-350	2/0-250	1-4/0	1/0-3/0	-	43676
7695-T-150-3G	150	1.18-1.51"	4.50"	700-1000	700-1000	700-1000	700-1000	500-750	500-750	350-500	250-500	4/0-500	1/0-350	43675

*150 kV impulse level meets the impulse requirements for 35 kV class equipment where indoor terminations are used.

7690-S-3-INV-3G Series — Kit Selection Guide

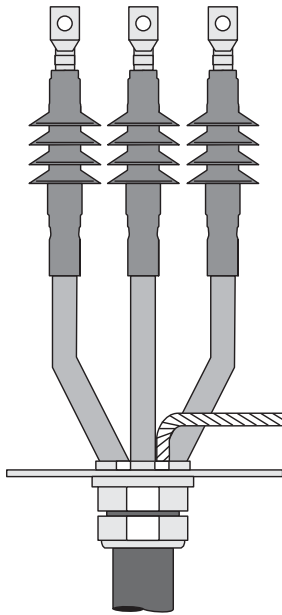


7690-S-3-INV-3G

Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	Cable Insulation Range (inches)	Cable O.D. (inches)	5 kV (AWG/kcmil)		8.7 kV (AWG/kcmil)		15 kV (AWG/kcmil)		25 kV (AWG/kcmil)		UPC (054007-)
			100%	133%	100%	133%	100%	133%	100%	133%	
7693-S-4-INV-3G	0.92-1.18"	3.90"	400-500	400-500	400-500	400-500	250-350	4/0-350	2/0-250	1-4/0	43677
7695-S-4-INV-3G	1.18-1.51"	4.50"	700-1000	700-1000	700-1000	700-1000	500-750	500-750	350-500	250-500	43678

7600-S-3-RJS Series — Kit Selection Guide

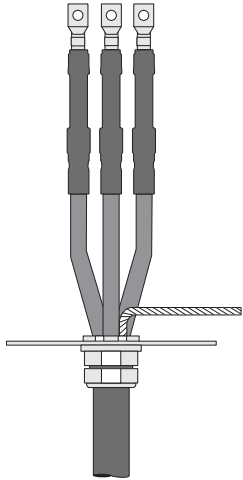


7600-S-3-RJS

Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	BIL kV	Cable Insulation Range in. (mm)	3.3 kV (mm ²) IES	3.3 kV (mm ²) JIS	5.0 kV (AWG) AEIC	6.6 kV (mm ²) JIS	6.6 kV (mm ²) IEC	8.7 kV (AWG) AEIC	10 kV (mm ²) IEC	15 kV (mm ²) IEC	15 kV (AWG) AEIC	20 kV (mm ²) IEC	25/28 kV (AWG) AEIC	30 kV (mm ²) IEC	35 kV (AWG) AEIC	UPC (054007-)
7620-S-2-3-RJS	95	0.33-0.50" (8.40-12.7 mm)	16-35	8-22	8-2	—	16-25	6-4	—	—	—	—	—	—	—	04722
7621-S-2-3-RJS	95	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	—	35-70	2-2/0	10-50	16-25	—	—	—	—	—	04723
7622-S-2-3-RJS	110	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	—	—	—	—	04724
7691-S-4-3-RJS	150	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	—	35-70	2-2/0	10-50	16-25	2-1	—	—	—	—	04725
7692-S-4-3-RJS	150	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	25-70	2-1/0	—	—	04726
7693-S-4-3-RJS	150	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	95-185	2/0-250	—	—	04727
7695-S-4-3-RJS	150	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	300-500	—	—	04728
7684-S-8-3-RJS	200	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	95-185	2/0-250	35-70	1/0-3/0	04729
7685-S-8-3-RJS	200	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	300-500	95-240	4/0-500	04730

7600-T-3-RJS Series — Kit Selection Guide



7600-T-3-RJS

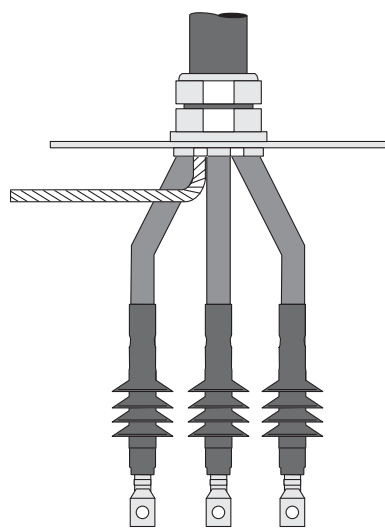
Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	BIL kV	Cable Insulation Range in. (mm)	3.3 kV (mm) IEC	3.3 kV (mm) JIS	5.0 kV (AWG) AEIC	6.6 kV (mm) JIS	6.6 kV (mm) IEC	8.7 kV (AWG) AEIC	10 kV (mm) IEC	15 kV (mm) IEC	15 kV (AWG) AEIC	20 kV (mm) IEC	25/28 kV (AWG) AEIC	35 kV* (AWG) AEIC	UPC (054007-)
7620-T-95-3-RJS	95	0.33-0.50" (8.40-12.7 mm)	16-35	8-22	8-2	—	16-25	6-4	—	—	—	—	—	—	04810
7621-T-95-3-RJS	95	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	—	35-70	2-2/0	10-50	16-25	—	—	—	—	04586
7623-T-95-3-RJS	95	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	—	95-150	3/0-350	70-150	35-95	—	—	—	—	04707
7624-T-95-3-RJS	95	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	—	185-300	400-600	185-300	120-185	—	—	—	—	04708
7621-T-110-3-RJS	110	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	14-38	35-70	2-2/0	10-50	16-25	2-1	—	—	—	04710
7622-T-110-3-RJS	110	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	—	—	—	04711
7624-T-110-3-RJS	110	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	—	—	—	04712
7625-T-110-3-RJS	110	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	—	—	—	04713
7624-T-125-3-RJS	125	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	95-185	—	—	04715
7625-T-125-3-RJS	125	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	—	—	04716
7693-T-150-3-RJS	150	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	25-70	2-1/0	—	04717
7694-T-150-3-RJS	150	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	95-185	2/0-250	1/0-3/0	04718
7695-T-150-3-RJS	150	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	300-500	4/0-500	04719

Final determining factor is cable insulation diameter. Listed insulation ranges allow +0.10" (2.54 mm) for shielding.

*150 kV impulse level meets the impulse requirements for 35 kV class equipment where indoor terminations are used.

7690-S-INV-3-RJS Series — Kit Selection Guide



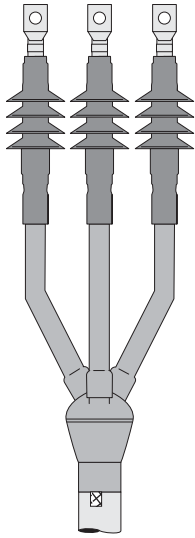
7690-S-INV-3-RJS

Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	Cable Insulation Range in. (mm)	3.3 kV (mm ²) IEC	3.3 kV (mm ²) JIS	5.0 kV (AWG) AEIC	6.6 kV (mm ²) JIS	6.6 kV (mm ²) IEC	8.7 kV (AWG) AEIC	10 kV (mm ²) IEC	15 kV (mm ²) IEC	15 kV (AWG) AEIC	20 kV (mm ²) IEC	25/28 kV (AWG) AEIC	UPC (054007-)
7693-S-4-INV-3-RJS	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	95-185	2/0-250	04720
7695-S-4-INV-3-RJS	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	300-500	04721

Final determining factor is cable insulation diameter. Listed insulation ranges allow +0.10" (2.54 mm) for shielding.

7600-S-3W Series — Kit Selection Guide



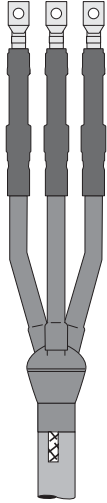
7600-S-3W

Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	BIL kV	Cable Insulation Range in. (mm)	3.3 kV (mm ²) IEC	3.3 kV (mm ²) JIS	5.0 kV (AWG) AEIC	6.6 kV (mm ²) JIS	6.6 kV (mm ²) IEC	8.7 kV (AWG) AEIC	10 kV (mm ²) IEC	15 kV (mm ²) IEC	15 kV (AWG) AEIC	20 kV (mm ²) IEC	25/28 kV (AWG) AEIC	30 kV (mm ²) IEC	35 kV (AWG) AEIC	UPC (051131-)
7620-S-2-3W	95	0.33-0.50" (8.40-12.7 mm)	16-35	8-22	8-2	—	16-25	6-4	—	—	—	—	—	—	—	04748
7621-S-2-3W	95	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	—	35-70	2-2/0	10-50	16-25	—	—	—	—	—	04749
7622-S-2-3W	110	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	—	—	—	—	04750
7691-S-4-3W	150	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	—	35-70	2-2/0	10-50	16-25	—	—	—	—	—	04751
7692-S-4-3W	150	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	25-70	2-1/0	—	—	04752
7693-S-4-3W	150	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	95-185	2/0-250	—	—	04753
7695-S-4-3W	150	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	300-500	—	—	04754
7685-S-8-3W	200	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	300-500	95-240	4/0-500	04756

Final determining factor is cable insulation diameter. Listed insulation ranges allow +0.10" (2.54 mm) for shielding.

7600-T-3-W Series — Kit Selection Guide



7600-T-3W

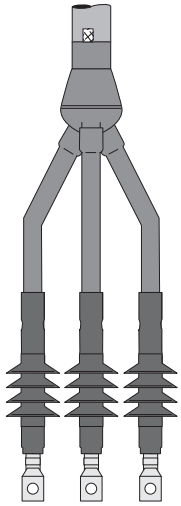
Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	BIL kV	Cable Insulation Range in. (mm)	3.3 kV (mm ²) IEC	3.3 kV (mm ²) JIS	5.0 kV (AWG) AEIC	6.6 kV (mm ²) JIS	6.6 kV (mm ²) IEC	8.7 kV (AWG) AEIC	10 kV (mm ²) IEC	15 kV (mm ²) IEC	15 kV (AWG) AEIC	20 kV (mm ²) IEC	25/28 kV (AWG) AEIC	35 kV* (AWG) AEIC	UPC (051131-)
7620-T-95-3W	95	0.33-0.50" (8.40-12.7 mm)	16-35	8-22	8-2	—	16-25	6-4	—	—	—	—	—	—	04731
7621-T-95-3W	95	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	—	35-70	2-2/0	10-50	16-25	—	—	—	—	04732
7623-T-95-3W	95	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	—	95-150	3/0-350	70-150	35-95	—	—	—	—	04733
7624-T-95-3W	95	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	—	185-300	400-600	185-300	120-185	—	—	—	—	04734
7625-T-95-3W	95	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	—	—	750-1000	—	200-325	—	—	—	—	04735
7621-T-110-3W	110	0.50-0.70" (12.7-17.8 mm)	50-95	38-60	1-3/0	14-38	35-70	2-2/0	10-50	6-25	2-1	—	—	—	04736
7622-T-110-3W	110	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	—	—	—	04737
7624-T-110-3W	110	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	—	—	—	04738
7625-T-110-3W	110	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	—	—	—	04739
7625-T-125-3W	125	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	—	—	04742
7693-T-150-3W	150	0.70-0.92" (17.8-23.4 mm)	120-185	100-150	4/0-400	60-100	95-150	3/0-350	70-150	35-95	1/0-4/0	25-70	2-1/0	—	04743
7694-T-150-3W	150	0.92-1.18" (23.4-30.0 mm)	240-300	200-250	500-750	150-250	185-300	400-600	185-300	120-185	250-450	95-185	2/0-250	1/0-3/0	04744
7695-T-150-3W	150	1.18-1.52" (30.0-38.6 mm)	—	300-325	800-1000	300-325	—	750-1000	—	200-325	500-750	240-300	300-500	4/0-500	04745

Final determining factor is cable insulation diameter. Listed insulation ranges allow +0.10" (2.54 mm) for shielding.

*150 kV impulse level meets the impulse requirements for 35 kV class equipment where indoor terminations are used.

7690-S-INV-3W Series — Kit Selection Guide



7690-S-INV-3W

Selection Guide for 3M™ Three Conductor Kit 7600 Series

Kit Number	Cable Insulation Range in. (mm)	3.3 kV (mm ²) JIS	3.3 kV (mm ²) AEIC	5.0 kV (AWG) JISIEC	6.6 kV (mm ²) AEIC	6.6 kV (mm ²) IEC	8.7 kV (AWG) IEC	10 kV (mm ²) AIEC	15 kV (mm ²) IEC	15 kV (AWG) AEIC	20 kV (mm ²) IEC	25/28 kV (AWG) AEIC	UPC (051131-)
7693-S-4-INV-3W	0.92-1.18" (23.4-30.0 mm)	240- 300	200- 250	500- 750	150- 250	185- 300	400- 600	185- 300	120- 185	250- 450	95- 185	2/0- 250	04746
7695-S-4-INV-3W	1.18-1.52" (30.0-38.6 mm)	—	300- 325	800- 1000	300- 325	—	750- 1000	—	200- 325	500- 750	240- 300	300- 500	04747

Final determining factor is cable insulation diameter. Listed insulation ranges allow +2.54 mm (0.10") for shielding.

3M™ Phase Rejacketing Kits

Indoor/Outdoor Kits	Indoor Kits	Cable Metallic Shield Diameter Range	5 kV	8 kV	15 kV	25/28 kV
RJK kits for converting 3/c cable to three 1/c cables						
RJK-1	RJS-2/3	0.60-0.80	1-3/0	2-2/0	2-1/0	—
RJK-2	RJS-3/3	0.80-1.02	4/0-400	3/0-350	1/0-4/0	2-1/0
RJK-3	RJS-4/3	1.02-1.28	500-750	400-600	250-450	2/0-250
RJK-4	RJS-5/3	1.28-1.62	800-1000	750-1000	500-750	300-500

Kit Contents

Indoor/Outdoor Kits

3M Cold Shrink breakout boot, Cold Slip rejacketing sleeves (3 four-foot lengths), provision to externally ground at breakout boot.

Indoor Kits

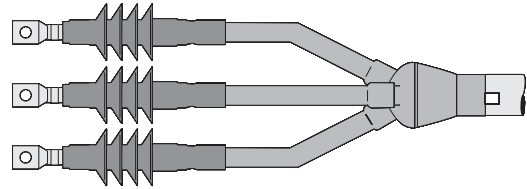
3M Cold Slip rejacketing sleeves (3 four-foot lengths).

3M Cold Shrink

3M Cold Shrink termination products are designed using 3M's unique cold shrink delivery system. Products are supplied pre-stretched on a removable core for efficiency and ease of installation.

3M Cold Slip

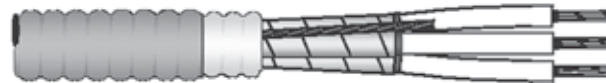
3M Cold Slip rejacketing sleeves incorporate an inner-expandable polyester braid designed to reduce sliding friction and deliver the sleeve quickly onto the cable.



Termination and RJK Kits Application Ranges (final determining factor is cable insulation diameter):

QT III Kit	BIL (kV)	RJK Kit	Cable Insulation Range (inches)	5 kV (AWG)		8 kV (AWG)		15 kV (AWG)		25 kV (AWG)		35 kV (AWG)	
				100%	133%	100%	133%	100%	133%	100%	133%	100%	133%
7621-S-2	95	RJK-1	0.32-0.59"	1-3/0	2-2/0	2-2/0	2-2/0						
7622-S-2	95	RJK-1 RJK-2	0.64-1.08"	1-3/0	2-2/0	2-2/0	2-2/0	2-1/0 1/0-4/0	2-3/0				
7692-S-4	150	RJK-1 RJK-2 RJK-3	0.64-1.08"	1-3/0	2-2/0	2-2/0	2-2/0	2-1/0 1/0-4/0	2-3/0 4/0	1-1/0		1/0	
7693-S-4	150	RJK-2 RJK-3	0.72-1.29"	1-3/0	2-2/0	2-2/0	2-2/0	2/0-4/0 250-300	2/0-3/0 4/0-300	1-1/0 2/0-4/0	1/0-4/0		
7694-S-4	150	RJK-2 RJK-3 RJK-4	0.83-1.53"	1-3/0	2-2/0	2-2/0	2-2/0	4/0 250-450 500	4/0-350 500	2/0-250	2/0-4/0 250		
7695-S-4	150	RJK-3 RJK-4	1.05-1.80"	1-3/0	2-2/0	2-2/0	2-2/0			250	300-500	250-500	
7696-S-4	150	RJK-3 RJK-4	1.53-2.32"	1-3/0	2-2/0	2-2/0	2-2/0						
7683-S-8	200	RJK-2 RJK-3 RJK-4	0.72-1.29"	1-3/0	2-2/0	2-2/0	2-2/0	2/0-4/0 250-300	2/0-3/0 4/0-300	1-1/0 2/0-4/0	1/0-4/0	1/0-2/0	1/0-2/0
7684-S-8	200	RJK-2 RJK-3 RJK-4	0.83-1.53"	1-3/0	2-2/0	2-2/0	2-2/0	4/0 250-450 500	4/0-350 500	2/0-250	2/0-4/0 250	1/0-3/0 4/0	1/0-4/0
7685-S-8	200	RJK-3 RJK-4	1.05-1.80"	1-3/0	2-2/0	2-2/0	2-2/0			250	300-500	250-500	3/0 3/0-350

** Cable insulation range 3/C Copper Tape Shield,
Armored – Type “G” Cable (with ground conductor) REV
2/ August 12/2003



3M™ Cold Shrink Silicone Rubber Outdoor Termination
for 3/C Copper Tape Shield Cables with Ground Conductor
RJK kits match with QT III CV-0002.

3M™ Cold Shrink QT-II Indoor and Outdoor Terminations

3M™ Cold Shrink QT-II terminations provide easy installation for a broad spectrum of indoor and outdoor applications. The Cold Shrink QT-II termination is based on specially formulated, track-resistant silicone rubber insulators with built-in Hi-K stress relief. The insulators are pre-stretched around a spiral-wound, plastic core. When the terminator is slipped over a properly prepared cable and the core is removed, the terminator immediately shrinks to the cable's dimensions. The result is a void-free, flexible seal without special tools or torches.

Meets requirements of IEEE Standard 48-1990 for Class 1 terminations unless noted.



3M™ Cold Shrink QT-II Indoor Termination

3M Indoor Termination Kits 5620K Series for 5 to 15 kV (for Tape, Wire and UniShield® Shield Cable)

Kit Number	UPC (054007-)	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)				
			5 kV 100%	5 kV 133%	8 kV 100%	8 kV 133%	15 kV 100%
Shielded Cable Kits – Tubular Termination (Each Shielded Cable Kit makes three terminations)							
5621K	12250	0.32-0.46" (8-12 mm)	8-4 (10-16 mm ²)	8-6 (10-14 mm ²)	8 (10 mm ²)	—	—
5622K	12251	0.44-0.65" (1-17 mm)	2-2/0 (35-60 mm ²)	4-1/0 (22-50 mm ²)	6-1 (14-38 mm ²)	—	—
5623K	12252	0.56-0.87" (14-22 mm)	2/0-250 kcmil (70-125 mm ²)	1/0-4/0 (60-100 mm ²)	1-3/0 (50-80 mm ²)	4-1/0 (22-50 mm ²)	4-2 (22-35 mm ²)
5624K	12254	0.78-1.30" (20-33 mm)	300-750 kcmil (180-325 mm ²)	250-750 kcmil (125-325 mm ²)	4/0-600 kcmil (120-300 mm ²)	2/0-350 kcmil (70-150 mm ²)	1-250 kcmil (38-125 mm ²)
5625K	12255	1.09-1.80" (28-46 mm)	600-1500 kcmil (325-725 mm ²)	600-1500 kcmil (325-725 mm ²)	500-1250 kcmil (300-625 mm ²)	500-1250 kcmil (300-625 mm ²)	350-1000 kcmil (180-500 mm ²)

3M™ Indoor Termination Kits 6020K Series for 15 to 25/28 kV (for Tape, Wire and UniShield® Shield Cable)

Kit Number	UPC (054007-)	Cable Insulation O.D. Range in. (mm)	Cable Jacket O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm²)		
				15 kV 100%	15 kV 133%	25/28 kV
Shielded Cable Kits – Tubular Termination (Each Shielded Cable Kit makes three terminations)						
6022K	49934	0.64-0.90" (16,3-22,9 mm)	0.80-1.20" (20,3-30,5 mm)	2-3/0 (35-80 mm)	4-2/0 (22-60 mm²)	2-1 (35-38 mm²)
6023K	49935	0.84-1.33" (21,3-33,8 mm)	1.00-1.60" (25,4-40,6 mm)	3/0-500 (95-250mm²)	2/0-350 (70-150 mm²)	1-250 (38-125 mm²)
6024K	49936	1.10-1.65" (27,9-41,9 mm)	1.30-1.90" (33,0-48,3 mm)	500-750 (300-325 mm²)	350-700 (180-325 mm²)	250-600 (125-300 mm²)
6025K	49937	1.30-1.95" (33,0-49,5 mm)	1.50-2.40" (38,1-61,0 mm)	750-1750 (400-850 mm²)	700-1500 (400-750 mm²)	600-1250 (325-625 mm²)

3M™ Outdoor Termination Kits 5630K Series for 5 to 15 kV (for Tape, Wire and UniShield® Shield Cable)

Kit Number	UPC (054007-)	Cable Insulation O.D. Range in. (mm)	Cable Jacket O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm²)				
				5 kV 100%	5 kV 133% 8 kV 100%	8 kV 133%	15 kV 100%	15 kV 133%
Shielded Cable Kits – Tubular Termination (Each Shielded Cable Kit makes three terminations)								
5632K	49681	0.33-0.69" (8-17 mm)	0.55-0.92" (14-23 mm)	8-2/0 (10-60 mm²)	8-1/0 (10-50 mm²)	8-1 (10-38 mm²)	8-4 (10-16 mm²)	8-6 (10-14 mm²)
5633K	12256	0.64-0.90" (16-23 mm)	0.80-1.20" (20-30 mm)	3/0-300 (95-150 mm²)	2/0-250 (70-125 mm²)	1/0-4/0 (60-100 mm²)	2-3/0 (35-80 mm²)	4-1/0 (22-50 mm²)
5635K	12257	0.84-1.33" (21-34 mm)	1.00-1.60" (25-41 mm)	350-750 (180-325 mm²)	300-750 (180-325 mm²)	250-600 (125-325 mm²)	3/0-500 (95-250 mm²)	2/0-350 (70-180 mm²)
5636K	12258	1.10-1.65" (28-42 mm)	1.30-1.90" (33-48 mm)	750-1500 (400-725 mm²)	750-1250 (400-625 mm²)	600-1000 (325-500 mm²)	500-1000 (300-500 mm²)	350-750 (180-325 mm²)
5637K	12259	1.30-1.95" (33-50 mm)	1.50-2.40" (33-61 mm)	1000-2000 (600-1000 mm²)	1000-2000 (600-1000 mm²)	800-1750 (500-850 mm²)	750-1750 (400-850 mm²)	600-1500 (325-725 mm²)

NOTE: Because of the various factors which affect Cable Primary Insulation O.D. and Cable Jacket O.D. (e.g. type of conductor, insulation thickness), the cable sizes in the chart above are guidelines. Confirm conductor will fit within cable insulation range.

NOTE: For three conductor cable applications, consult your 3M sales representative.

3M Outdoor Termination Kits 5600 and 5680 Series for 5 to 35 kV (for Concentric Neutral Cables)

Kit Number	UPC (054007-)	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)					
			5 kV 100%	5 kV 133% 8 kV 100%	8 kV 133%	15 kV	25/28 kV	35 kV
Non-jacketed Concentric Cable Kits (Each Concentric and Jacketed Concentric Cable Kit makes one termination)								
4 Skirt								
5601	02427	0.637-1.12" (16-28 mm)	3/0-500 (95-250 mm ²)	2/0-500 (35-250 mm ²)	1/0-350 (60-150 mm ²)	2-4/0 (35-100 mm ²)	—	—
5602	11882	0.84-1.38" (21-35 mm)	350-750 (180-325 mm ²)	350-750 (180-325 mm ²)	250-750 (125-325 mm ²)	250-500 (125-250 mm ²)	—	—
5603	11885	1.08-1.80" (27-46 mm)	750-1000 (400-500 mm ²)	750-1500 (400-725 mm ²)	500-1250 (300-625 mm ²)	500-1200 (300-600 mm ²)	—	—
6 Skirt								
5681	09133	0.637-1.12" (16-28 mm)	3/0-500 (95-250 mm ²)	2/0-500 (35-250 mm ²)	1/0-350 (60-150 mm ²)	2-4/0 (35-100 mm ²)	2-2/0 (35-60 mm ²)	—
5682	69794	0.84-1.38" (21-35 mm)	350-750 (180-325 mm ²)	350-750 (180-325 mm ²)	250-750 (125-325 mm ²)	250-500 (125-250 mm ²)	1-350 (50-150 mm ²)	—
5683	69795	1.08-1.80" (27-46 mm)	750-1000 (400-500 mm ²)	750-1500 (400-725 mm ²)	500-1250 (300-625 mm ²)	500-1200 (300-600 mm ²)	350-750 (180-325 mm ²)	—
5684	69796	1.31-2.10" (33-53 mm)	—	—	—	—	750-1500 (400-725 mm ²)	—
8 Skirt								
5604**	08002	0.637-1.12" (16-28 mm)	3/0-500 (95-250 mm ²)	2/0-500 (35-250 mm ²)	1/0-350 (60-150 mm ²)	2-4/0 (35-100 mm ²)	2-2/0 (35-60 mm ²)	—
5605	11888	0.84-1.38" (21-35 mm)	350-750 (180-325 mm ²)	350-750 (180-325 mm ²)	250-750 (125-325 mm ²)	250-500 (125-250 mm ²)	1-350 (50-150 mm ²)	1-4/0 (50-100 mm ²)
5606	11893	1.08-1.80" (27-46 mm)	750-1000 (400-500 mm ²)	750-1500 (400-725 mm ²)	500-1250 (300-625 mm ²)	500-1200 (300-600 mm ²)	350-750 (180-325 mm ²)	4/0-500 (120-250 mm ²)
5607	11897	1.31-2.10" (33-53 mm)	—	—	—	—	750-1500 (400-725 mm ²)	500-1250 (300-625 mm ²)
5608	09168	1.80-2.75" (46-70 mm)	—	—	—	—	—	1000-2000 (500-1000 mm ²)
** The 5604 is rated 25/28 kV.								

3M™ Outdoor Termination Kits 5640 and 5650 Series for 15 to 35 kV (for Jacketed Concentric Neutral Cable)

Kit Number	UPC (054007-)	Cable Insulation O.D. Range in. (mm)	Cable Jacket O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)		
				15 kV	25/28 kV	35 kV
Non-jacketed Concentric Cable Kits (Each Concentric and Jacketed Concentric Cable Kit makes one termination)						
4 Skirt						
5641	11963	0.637-1.12" (16-28 mm)	0.93-1.35" (24-34 mm)	2-2/0 (35-60 mm ²)	—	—
5642	11970	0.84-1.38" (21-35 mm)	1.19-1.72" (30-44 mm)	3/0-350 (95-180 mm ²)	—	—
5643	11972	1.08-1.80" (27-46 mm)	1.37-2.02" (35-51 mm)	400-700 (240-325 mm ²)	—	—
5644	11973	1.31-2.10" (33-53 mm)	1.62-2.55" (41-65 mm)	750-1500 (400-725 mm ²)	—	—
6 Skirt						
5651	09132	0.637-1.12" (16-28 mm)	0.93-1.35" (24-34 mm)	2-2/0 (35-60 mm ²)	2-1/0 (35-50 mm ²)	—
5652	69791	0.84-1.38" (21-35 mm)	1.19-1.72" (30-44 mm)	3/0-350 (95-180 mm ²)	1/0-250 (60-125 mm ²)	—
5653	69792	1.08-1.80" (27-46 mm)	1.37-2.02" (35-51 mm)	400-700 (240-325 mm ²)	250-500 (125-250 mm ²)	—
5654	69793	1.31-2.10" (33-53 mm)	1.62-2.55" (41-65 mm)	750-1500 (400-725 mm ²)	500-1250 (300-625 mm ²)	—
8 Skirt						
5646	11975	0.84-1.38" (21-35 mm)	1.19-1.72" (30-44 mm)	3/0-350 (95-180 mm ²)	1/0-250 (60-125 mm ²)	1-3/0 (50-80 mm ²)
5647	11976	1.08-1.80" (27-46 mm)	1.37-2.02" (35-51 mm)	400-700 (240-325 mm ²)	250-500 (125-250 mm ²)	4/0-300 (120-150 mm ²)
5648	11977	1.31-2.10" (33-53 mm)	1.62-2.55" (41-65 mm)	750-1500 (400-725 mm ²)	500-1250 (300-625 mm ²)	350-1000 (180-500 mm ²)
5649	09958	1.80-2.30" (46-58 mm)	2.10-2.75" (53-70 mm)	—	—	1000-1500 (600-725 mm ²)

3M Outdoor Termination Kits 5690K Series for 15 to 35 kV (for Tape, Wire and UniShield® Shield Cable)

Kit Number	UPC (054007-)	Cable Insulation O.D. Range in. (mm)	Cable Jacket O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)			
				15 kV 100%	15 kV 133%	25/28 kV	35 kV
Shielded Cable Kits (Each Shielded Cable Kit makes three terminations)							
6 Skirt							
5691K	49395	0.64-0.90" (16,3-22,9 mm)	0.80-1.20" (20,3-30,5 mm)	2-3/0 (35-80 mm ²)	2-1/0 (35-50 mm ²)	2-1 (35-38 mm ²)	—
5692K	49396	0.84-1.33" (21,3-33,8 mm)	1.00-1.60" (25,5-40,6 mm)	3/0-400 (95-200 mm ²)	2/0-350 (70-180 mm ²)	1/0-250 (60-125 mm ²)	—
5693K	49397	1.10-1.65" (27,9-41,9 mm)	1.30-1.90" (33-48,3 mm)	500-750 (300-325 mm ²)	400-750 (240-325 mm ²)	300-500 (180-250 mm ²)	—
5694K	49398	1.30-1.95" (33-49,5 mm)	1.50-2.40" (38,1-61 mm)	800-1750 (500-850 mm ²)	800-1500 (500-725 mm ²)	600-1250 (325-625 mm ²)	—
8 Skirt							
5696K	49399	0.84-1.33" (21-33,8 mm)	1.00-1.60" (25,4-40,6 mm)	3/0-400 (95-200 mm ²)	2/0-350 (70-180 mm ²)	1/0-250 (60-125 mm ²)	2-3/0 (35-80 mm ²)
5697K	49400	1.10-1.65" (27,9-41,9 mm)	1.30-1.90" (33-48,3 mm)	500-750 (300-325 mm ²)	400-750 (240-325 mm ²)	300-500 (180-250 mm ²)	4/0-400 (120-150 mm ²)
5698K	49401	1.30-1.95" (33-49,5 mm)	1.50-2.40" (38,1-61 mm)	800-1750 (500-850 mm ²)	800-1500 (500-725 mm ²)	600-1250 (325-625 mm ²)	500-1000 (300-500 mm ²)

Specifications and Ordering Information for 3M™ Silicone Rubber Termination Kits 4604 and 4605 for 46 kV

Part Number	UPC (054007-)	Conductor Range AWG and kcmil (mm ²)	Cable Insulation O.D. Range	Creepage Distance	Arcing Distance	Case Qty.
Silicone Rubber Termination Kits 4604 and 4605 (Each kit makes one termination)			Tape Shielded Cable, Wire Shielded Cable, LC Shielded Cable See page 264 for cable type illustrations.			
4604	50192	4/0-600 (120-300 mm ²)	1.31-2.10" (33-53 mm)	46" (max.) (1168 mm)	30" (max.) (762 mm)	1
4605	50193	600-1500 (325-725 mm ²)	1.80-2.66" (46-66 mm)	46" (max.) (1168 mm)	30" (max.) (762 mm)	1



Note: Because of the various factors which affect cable primary insulation O.D. and cable jacket O.D. (e.g. type of conductor, insulation thickness), the cable sizes in the chart above are guidelines. Confirm that cable insulation O.D. fits range specified above for the termination. For three conductor applications, consult your 3M sales representative.

3M™ Silicone Rubber Termination Kits 5610-A Series for 5 to 8 kV

3M Cold Shrink Termination Kits 5610-A series provide an environmental seal to the terminal lug area of 5 to 8 kV unshielded power cable. Each kit contains everything needed (except terminal lug) to seal three cable ends. Kits can be used for both indoor (protected) and outdoor (weather-exposed) applications.

The silicone rubber provides tracking protection for the lug ends of the cable.

Each kit contains:

- 3 silicone rubber unshielded terminations
- 3 strips Scotch® 70 silicone rubber tape*
- Instructions

*5614A contains one roll of Scotch 70 silicone rubber tape.

Specifications and Ordering Information for 3M Silicone Rubber Termination Kits 5610-A Series for 5 and 8 kV

Part Number	UPC (054007-)	Conductor Range AWG and kcmil (mm ²)	Cable Insulation O.D. Range in. (mm)	Terminations Per Kit	Case Qty.
5610-A Series Silicone Rubber Termination Kits 5 kV and 8 kV		Non-Shielded (Dry) Cable, Non-Shielded (Wet or Dry) Cable See page 264 for cable type illustrations.			
5611A	49549	8-4 (10-16 mm ²)	0.31-0.72" (7,9-18,3 mm)	3	1
5612A	49550	2-2/0 (35-60 mm ²)	0.44-0.95" (11,2-24,1 mm)	3	1
5613A	49551	3/0-300 (95-150 mm ²)	0.56-1.18" (14,2-30,0 mm)	3	1
5614A	49552	350-1000 (180-500 mm ²)	0.95-1.94" (24,1-49,3 mm)	3	1



Note: Because of the various factors which affect cable primary insulation O.D. and cable jacket O.D. (e.g., type of conductor, insulation thickness), the cable sizes in the chart above are guidelines. Confirm that cable insulation O.D. fits range specified above for the termination.

3M™ Termination Kits 5671 and 5672 for 5 to 15 kV

3M Cold Shrink QT II 5671 and 5672 kits are one-piece, 5 to 15 kV, Class 3 terminations. They will terminate CN or JCN cables. A Hi-K (high dielectric constant) stress control tube insulated with a track-resistant silicone rubber tube is

pre-stretched together onto a removable core.

Meets IEEE Standard 48. Each kit makes one termination.

Each kit contains:

- Hi-K silicone rubber terminations
- Silicone rubber terminator
- Packet of silicone grease
- Instructions

Specifications and Ordering Information for 3M Silicone Rubber Termination Kits 5670 Series for 5 and 15 kV

Part Number	UPC (054007-)	Conductor Range AWG and kcmil (mm ²)	Cable Insulation O.D. Range in. (mm)	Terminations Per Kit	Case Qty.
5671 and 5672 Termination Kits		Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See page 264 for cable type illustrations.			
5671	33798	2-250 (35-125 mm ²)	0.637-1.120" (16-28 mm)	1	10
5672	33799	250-1000 (125-500 mm ²)	0.940-1.810" (24-46 mm)	1	10



Note: Because of the various factors which affect cable primary insulation O.D. and cable jacket O.D. (e.g., type of conductor, insulation thickness), the cable sizes in the chart above are guidelines. Confirm that cable insulation O.D. fits range specified above for the termination.

Specifications and Ordering Information for 3M™ PILC Silicone Rubber Termination Kits 5800-Pb Series for 15 kV

Part Number	UPC (054007-)	Conductor Range AWG and kcmil (mm ²)	Conductor Size Stranded	Conductor Size Solid	Cable Insulation O.D. Range	Term. Per Kit	Case Qty.
PILC Silicone Rubber Termination Kits 5800-Pb S			Paper Insulated Lead Covered (PILC) Cable See page 264 for cable type illustrations.				
4 Skirt							
5801-Pb	50448	4-2/0 (22-60 mm ²)	—	—	0.59-0.90" (14,9-22,9 mm)	1	1
5801-Pb-2*	50451	—	2 AWG	1 AWG	0.59-0.90" (14,9-22,9 mm)	1	1
5801-Pb-1/0*	50449	—	1/0 AWG	2/0 AWG	0.59-0.90" (14,9-22,9 mm)	1	1
5801-Pb-2/0*	50450	—	2/0AWG	3/0 AWG	0.59-0.90" (14,9-22,9 mm)	1	1
5802-Pb	50452	2/0-250 (70-125 mm ²)	—	—	0.71-1.01" (18,0-25,7 mm)	1	1
5802-Pb-4/0*	50454	—	4/0 AWG	250 kcmil	0.71-1.01" (18,0-25,7 mm)	1	1
5802-Pb-250*	50455	—	250 kcmil	—	0.71-1.01" (18,0-25,7 mm)	1	1
5803-Pb	50456	350-600 (180-300 mm ²)	—	—	0.94-1.36" (23,9-34,5 mm)	1	1
5803-Pb-350*	50457	—	350 kcmil	—	0.94-1.36" (23,9-34,5 mm)	1	1
5803-Pb-500*	50458	—	500 kcmil	—	0.94-1.36" (23,9-34,5 mm)	1	1
5804-Pb	50459	750-1250 (400-625 mm ²)	—	—	1.20-1.90" (30,5-48,3 mm)	1	1
6 Skirt							
5806-Pb	50460	2/0-250 (70-125mm ²)	—	—	0.71-1.01" (18,0-25,7 mm)	1	1
5807-Pb	50463	350-600 (180-300 mm ²)	—	—	0.94-1.36" (23,9-34,5 mm)	1	1
5808-Pb	50468	750-1250 (400-625 mm ²)	—	—	1.20-1.90" (30,5-48,3 mm)	1	1
5808-Pb-750*	41909	—	750 kcmil	—	1.20-1.90" (30,5-48,3 mm)	1	1




Note: Because of the various factors which affect cable primary insulation O.D. and cable jacket O.D. (e.g., type of conductor, insulation thickness), the cable sizes in the chart above are guidelines. Confirm that cable insulation O.D. fits range specified above for the termination. For three conductor applications, consult your 3M sales representative.

*Termination kits include oil stop lug.

Note: Oil stop lugs must be used with 5800-Pb series terminations.

Specifications and Ordering Information for 3M™ PILC Silicone Rubber Termination Kits 5800-Pb Series for 25/28 kV

Part Number	UPC (054007-)	Conductor Range AWG and kcmil (mm ²)	Conductor Size		Insulation O.D. Range in. (mm)	Cable Term. Per Kit	Case Qty.	
			Stranded	Solid				
Six-Skirt PILC Silicone Rubber Termination Kits 5800-Pb Series (with Oil Seal Lugs)			Paper Insulated Lead Covered (PILC) Cable See page 264 for cable type illustrations.					
	5806-Pb	50460	2-1/0 (35-60mm ²)	—	—	0.71-1.01" (18,0-25,7 mm)	1	1
	5806-Pb-2*	50462	—	2 AWG	1 AWG	0.71-1.01" (18-26 mm)	1	1
	5806-Pb-1/0*	50461	—	1/0 AWG	—	0.71-1.01" (18-26 mm)	1	1
	5807-Pb	50463	2/0-250 (70-125 mm ²)	—	—	0.94-1.36" (23,9-34,5 mm)	1	1
	5807-Pb-2/0*	50464	—	2/0 AWG	3/0 AWG	0.94-1.36" (24-35 mm)	1	1
	5807-Pb-3/0*	50465	—	3/0 AWG	4/0 AWG	0.94-1.36" (24-35 mm)	1	1
	5807-Pb-250*	50467	—	250 kcmil	—	0.94-1.36" (24-35 mm)	1	1
	5808-Pb	50468	350-1000 (185-500 mm ²)	—	—	1.20-1.90" (30,5-48,3 mm)	1	1
	5808-Pb-350*	50469	—	350 kcmil	—	1.20-1.90" (30-48 mm)	1	1
	5808-Pb-500*	50470	—	500 kcmil	—	1.20-1.90" (30-48 mm)	1	1
5808-Pb-750*	41909	—	750 kcmil	—	1.20-1.90" (30-48 mm)	1	1	

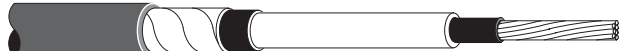
Note: Because of the various factors which affect cable primary insulation O.D. and cable jacket O.D. (e.g. type of conductor, insulation thickness), the cable sizes in the chart above are guidelines. Confirm that cable insulation O.D. fits range specified above for the termination. For three conductor applications, consult your 3M sales representative.

*Termination kits include oil stop lugs.

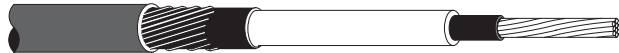
Note: Oil stop lugs must be used with 5800-Pb series terminations.

Tape Terminations

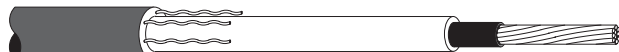
Scotch® Tape Termination Kits 5700 Series for 5-25 kV



Tape Shielded Cable



Wire Shielded Cable



UniShield® Cable



Concentric Neutral (CN) Cable

Scotch® Tape Termination Kits 5700 Series are designed to terminate solid dielectric shielded power cables rated 5 kV to 25/28 kV with Tape Shielded, Wire Shielded, UniShield® and Concentric Neutral construction in weather-protected areas. They can be upgraded to Class 1 (indoors only) with the use of Scotch® Silicone Rubber Electrical Tape 70 (see kit instructions).



Each kit contains:

- Scotch® Semiconducting Tape 13
- Scotch® High-Voltage Splicing Tape 130C
- Scotch® Super 33+™ Vinyl Plastic Electrical Tape
- Scotch® Electrical Stress Control Tape 2220
- 3 mechanical ground straps
- Cable preparation kit, including: 3 solvent-saturated cleaning pads and a strip of aluminum oxide abrasive cloth
- Instructions

Lugs not included, order separately.

Meets IEEE Standard 48 for Class 3 requirements.

Each kit makes three terminations.

Product Number	UPC (054007-)	Voltage Rating	Conductor Range AWG and kcmil (mm ²)	Case Qty.
5701	11248	5 kV	8-4/0 (10-100 mm ²)	1
		8 kV	8-4/0 (10-100 mm ²)	
		15 kV	8-4/0 (10-100 mm ²)	
5702	11255	5 kV	250-1000 (150-500 mm ²)	1
		8 kV	250-1000 (150-500 mm ²)	
		15 kV	250-750 (150-325 mm ²)	
5703	11263	25/28 kV	800-1000 (400-500 mm ²)	1

Loadbreak Elbows

3M™ 200 Amp 5-15 kV Industrial Loadbreak Elbow	294
3M™ 200 Amp 25 kV Industrial Loadbreak Elbow	296
3M™ 200 Amp Industrial Loadbreak Elbow Accessories	297



3M™ 200 Amp Industrial Loadbreak Elbow is a fully shielded and insulated plug-in separable connector for connecting 5 to 25 kV underground cable to transformers, switchgear and junctions equipped with loadbreak bushings. The elbow and the bushing insert comprise the essential components of all loadbreak connections. The 3M Loadbreak Elbows 5810 and 5811 series kits are designed for use on Tape Shield, Wire Shield, UniShield® and Jacketed Concentric Neutral types of cables. The jacket seal for each of these cable types is accomplished by use of a specially designed cold shrink tube. This tube seals from the bottom of the elbow to the cable jacket. Also included in the kit are all the ground assemblies necessary to ground both the cable and the elbow.

The loadbreak elbows are molded using high quality peroxide-cured EPDM insulation. Standard features include a coppertop connector, tin plated copper loadbreak probe with an ablative arc-follower tip, stainless steel reinforced pulling-eye and a capacitive test point.

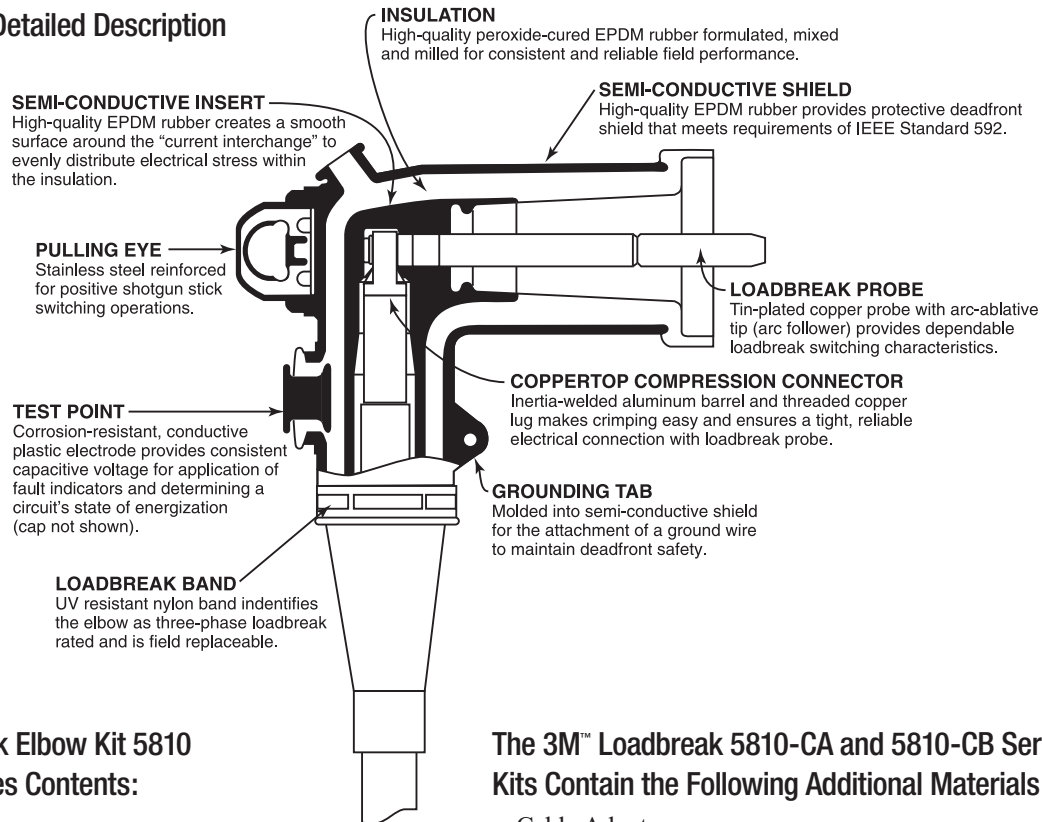
The coppertop compression connector is a standard item to transition from the cable to the loadbreak probe. An aluminum crimp barrel is inertia-welded to a copper lug. The aluminum barrel makes the connector easy to crimp on both aluminum and copper conductors and the copper lug ensures a reliable, tight, cool operating connection with the loadbreak probe. Meets requirements of ANSI/IEEE Standard 386.

Crimping
just got
easier



3M™ 200 Amp 5-15 kV Industrial Loadbreak Elbow

Features and Detailed Description



3M™ Loadbreak Elbow Kit 5810 and 5811 Series Contents:

- Elbow Body
- Copper top Compression Connect*
- Loadbreak Probe*
- Probe Installation Tool
- Silicone Lubricant
- Cold Shrink Jacketing Tube
- Mastic Strips
- Ground Braid Assembly
- Constant Force Spring
- CC-3 Cable Cleaning Pads
- Installation Instruction

*Elbow kit also available without connector.

The 3M™ Loadbreak 5810-CA and 5810-CB Series Kits Contain the Following Additional Materials:

- Cable Adapter
- Silicone Lubricant
- Supplemental Installation Instructions

CONNECTOR TABLE

Connector Number	Conductor Size (AWG/kcmil)	
	Stranded	Compact/Solid
LBC-4	4	—
LBC-3	3	2
LBC-2	2	1
LBC-1	1	1/0
LBC-1/0	1/0	2/0
LBC-2/0	2/0	3/0
LBC-3/0	3/0	4/0
LBC-4/0	4/0	250
LBC-250	250	—

3M™ Loadbreak Elbow Kit Selection Table for 5, 8 and 15 kV Class

NOTE: Final Kit selection based on cable insulation diameter.

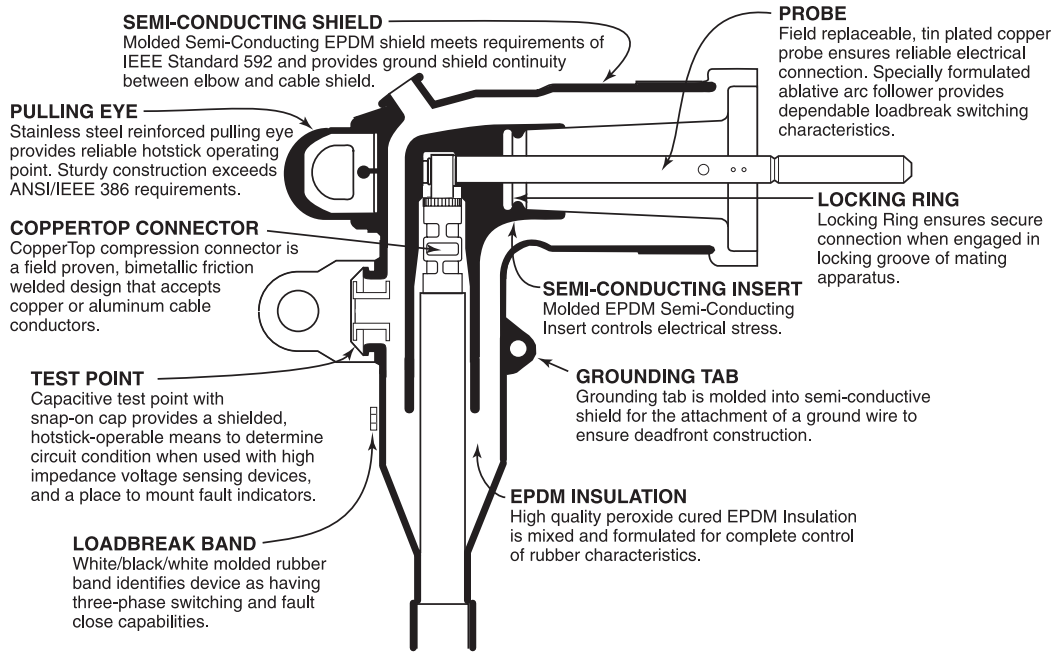
Kit Number	Insulation Diameter Range Inches (mm)	5 kV (AWG/kcmil)		8 kV (AWG/kcmil)		15 kV (AWG/kcmil)								
		100% (90 mils)	133% (115 mils)	100% (115 mils)	133% (140 mils)	100% (175 mils)	133% (220 mils)	Stranded	Compact/ Solid	Stranded	Compact/ Solid	Stranded	Compact/ Solid	
5810-CA**	0.495-0.585 (12.6-14.9)	2-1*	1-1/0*	2	1	2	1*							
5810-CA-2		2	1	2*	1	2	1*							
5810-CA-1		1*	1/0*											
5810-CB**	0.575-0.685 (14.6-17.4)	1/0-2/0	2/0	1-1/0	1/0	1-1/0	1/0	2	1	4				
5810-CB-4										4				
5810-CB-2									2	1				
5810-CB-1				1	1/0	1	1/0							
5810-CB-1/0			1/0	2/0	1/0		1/0							
5810-CB-2/0			2/0											
5810-A**		0.630-0.820 (16.0-20.8)	3/0-4/0	3/0-250	2/0-3/0	2/0-4/0	2/0-3/0	2/0-4/0	1-2/0	1/0-3/0	2-1	2-1/0		2
5810-A-3											2		2	
5810-A-2										2	1			
5810-A-1									1	1/0	1	1/0		
5810-A-1/0					2/0		2/0	1/0	2/0					
5810-A-2/0			3/0	2/0	3/0	2/0	3/0	2/0	3/0					
5810-A-3/0			3/0	4/0	3/0	4/0	3/0	4/0						
5810-A-4/0			4/0	250										
5810-B**	0.700-0.910 (17.8-23.1)	250	4/0-250	250	4/0-250	250	3/0-4/0	4/0-250	1/0-2/0	2/0-3/0	2-1/0	1-2/0		
5810-B-2											2	1		
5810-B-1											1	1/0		
5810-B-1/0									1/0	2/0	1/0	2/0		
5810-B-2/0									2/0	3/0				
5810-B-3/0								3/0	4/0					
5810-B-4/0				4/0	250	4/0	250	4/0	250					
5810-B-250			250	250	250									
5810-C**	0.850-1.100 (21.6-27.9)						250		3/0-250	4/0-250	2/0*-4/0	3/0-250		
5810-C-2/0											2/0	3/0		
5810-C-3/0										3/0	4/0	3/0	4/0	
5810-C-4/0										4/0	250	4/0	250	
5810-C-250								250		250				
5810-D**	1.040-1.250 (26.4-31.8)											250		
5810-D-250												250		

*Check actual cable insulation diameter to verify correct kit selection.

**Kit without compression connector.

3M™ 200 Amp 25 kV Industrial Loadbreak Elbow

Features and Detailed Description



3M™ Loadbreak Elbow Kit Selection Table for 25 kV Class

Kit Number	Insulation Diameter Range Inches (mm)	25 kV (AWG/kcmil)			
		100% (260 mils)		133% (320 mils)	
		Stranded	Compact/Solid	Stranded	Compact/Solid
5811-B*		2	2-1		
5811-B-3	0.700-0.910 (17.8-23.1.)		2		
5811-B-2		2	1		
5811-C*			1-3/0	1/0-4/0	2-1/0
5811-C-3					2
5811-C-2				2	1
5811-C-1	0.850-1.100 (21.6-27.9)	1	1/0	1	1/0
5811-C-1/0		1/0	2/0	1/0	
5811-C-2/0		2/0	3/0		
5811-C-3/0		3/0	4/0		
5811-D*		4/0-250	250	2/0-4/0	2/0-4/0
5811-D-1/0					2/0
5811-D-2/0	1.040-1.250 (26.4-31.8)			2/0	3/0
5811-D-3/0				3/0	4/0
5811-D-4/0		4/0	250	4/0	
5811-D-250		250			

*Kit without compression connector.

NOTE: Final kit selection based on cable insulation diameter.

3M™ 200 Amp Industrial Loadbreak Elbow Accessories

3M™ Industrial Insulated Protective Cap



3M™ 200 Amp 15 and 25 kV Class 5810-PC-15, 5811PC-25

3M Industrial Insulated Protective Cap is an accessory device designed to electrically insulate (dead-front) and mechanically seal loadbreak bushing interfaces. When mated to a loadbreak bushing interface with the drain wire attached to ground, the Industrial Insulated Protective Cap provides a fully shielded, insulating cover for energized bushings. The cap can be used for permanent or temporary installation on bushings, junctions or feed-thru devices that meet the requirements of ANSI/IEEE Standard 386.

No special tools are required for installation. A shotgun stick tool is used to place the protective cap on an exposed bushing interface. Refer to Installation Instructions for details.

Kit contents:

- Industrial Insulated Protective Cap
- Silicone Lubricant
- Installation Instruction Sheet

LOADBREAK PROTECTIVE CAP

Description	Kit Number
Protective Cap – 15 kV	5810-PC-15
Protective Cap – 25 kV	5811-PC-25

3M™ Industrial Loadbreak Bushing Insert



3M™ 200 Amp 15 and 25 kV Class 5810-BI-15, 5811-BI-25

3M Industrial Loadbreak Bushing Inserts thread into a universal bushing well to provide the same function as an integral loadbreak bushing. Using bushing inserts makes field installation and replacement possible and efficient. Bushing inserts and elbow connectors comprise the essential components of all loadbreak connections. No special tools are necessary for installation.

Kit contents:

- Industrial Loadbreak Bushing Insert
- Shipping Cap (not for energized operation)
- Silicone Lubricant
- Installation Instruction Sheet

LOADBREAK BUSHING INSERT KIT

Description	Kit Number
Loadbreak Bushing Insert – 15 kV	5810-BI-15
Loadbreak Bushing Insert – 25 kV	5811-BI-25

3M™ LBP-15 Probe Replacement Kit

For use with 3M™ Industrial Loadbreak Elbow 5810 Series 200 Amp 15 kV Class

LOADBREAK PROBE REPLACEMENT KIT

Description	Kit Number
Probe Replacement Kit – 15 kV	LBP-15
Probe Replacement Kit – 25 kV	LBP-25

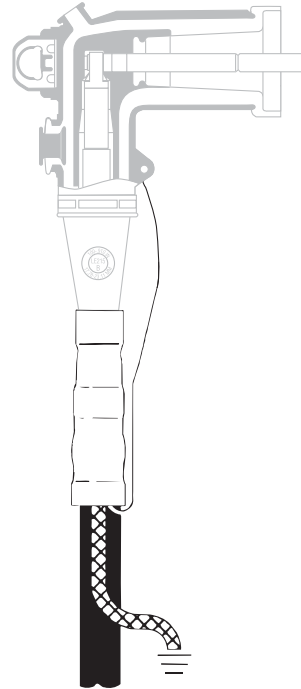
Cable Accessory Oil Stops 5110-OS Series 15–25/28 kV

3M™ Cold Shrink Kits 5110-OS Series are designed for use on PILC (Paper Insulated Lead Covered) cable with 200 Amp elbows and 600 Amp modular splice (separable connector) components that meet the requirements of IEEE Standard 386. There are four kits in the series that seal the oil inside the PILC cable, provide an accessory ground lead and environmentally seal the accessory end and cable jacket. These kits can be used on PILC cables sized 4 AWG to 1000 kcmil rated 15 kV and 2 AWG to 800 kcmil rated 25/28 kV.

Kit contents:

Each kit contains sufficient quantities of the following materials to seal and ground one cable end.

- Cold Shrink Oil Stop Tube
- Cold Shrink Jacket Tube
- White Restricting Tape
- Scotch® Rubber Tape 130C
- Scotch® Semi-Conducting Tape 13
- Ground Lead with Accessory Bleed Wire
- Mastic Seal Strips
- Instruction for 200 Amp Accessory
- Instruction for 600 Amp Accessory



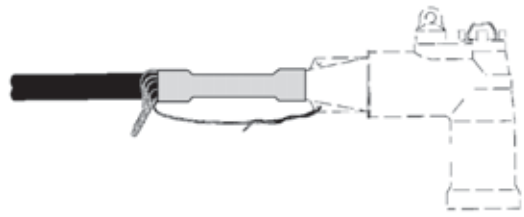
5110-OS Series Selection

Kit Number	UPC (054007-)	Minimum Insulation Diameter* in. (mm)	Maximum Lead Diameter in. (mm)	Conductor Size Range	
				15 kV	25/28 kV
5110-OS	43404	0.58 (14,7)	1.10 (27,9)	4-3/0 AWG	—
5111-OS	43405	0.72 (18,3)	1.30 (33,0)	4/0 AWG-300 kcmil	2-1/0 AWG
5112-OS	43406	0.92 (23,4)	1.60 (40,6)	350-600 kcmil	2/0 AWG-300 kcmil
5113-OS	43407	1.10 (27,9)	2 (50,8)	750-1000 kcmil	350-800 kcmil

*Over paper.

3M™ Cold Shrink Cable Accessory Sealing Kits 8450 Series

The 3M Cold Shrink Cable Accessory Sealing Kits 8450 Series are designed to seal the jacket end of power cables where elbows or other cable accessories are installed. Both the sealing tube and mastic are compatible with commonly used power cable jacketing and semiconductive materials.



Specifications and Ordering Information for 3M Cold Shrink Cable Accessory Sealing Kits 8450 Series

Specifications	8452	8452L	8453	8454
Cable Type	Jacketed Concentric Neutral Cable (JCN) See above for cable type illustration.			
Cable Size/Volt Class:				
Cable Size for 15 kV Class	2-4/0 AWG (35-100 mm ²)	2-4/0 AWG (35-100 mm ²)	2/0 AWG-1000 kcmil (70-500 mm ²)	750-1500 kcmil (380-725 mm ²)
Cable Size for 25 kV Class	2-2/0 AWG (35-50 mm ²)	2-2/0 AWG (35-50 mm ²)	1/0 AWG-750 kcmil (60-380 mm ²)	600-1250 kcmil (325-625 mm ²)
Cable Size for 35 kV Class	1/0 AWG (60 mm ²)	1/0 AWG (60 mm ²)	1/0 AWG-500 kcmil (60-250 mm ²)	350-1000 kcmil (180-500 mm ²)
Minimum Seal Diameter	0.95" (24 mm)	0.95" (24 mm)	1.28" (33 mm)	1.60" (41 mm)
Maximum Installed Diameter	1.94" (49 mm)	1.94" (49 mm)	2.67" (68 mm)	3.50" (89 mm)
Kit Components:				
Cold Shrink Sealing Tube	1	1 (1/2" longer)	1	1
Mastic Sealing Strips 6" (152,4 mm)	3 strips	3 strips	4 strips	6 strips
Instructions	1	1	1	1
Ordering Information				
UPC (054007-)	08336	44312	09676	49938
Inner Unit Pack	1/bag	1/bag	1/bag	1/bag
Case Qty.	10 kits	10 kits	10 kits	10 kits
Note: These kits are not required with the 3M 5810 and 5811 series 200 Amp Industrial Loadbreak Elbow Kits (the 5810 and the 5811 Kits contain grounding and sealing components).				

Modular Splicing

Modular Splicing Kits	302
Cable Adapter Kits	305

3M™ Modular Splice Kits form a 5 to 25 kV 600 Amp separable insulated connector system. The system is easy to expand and is flexible — allowing for easy disconnects and additions.

Using one or more of the versatile kits, you can make virtually any kind of splice—2-way, 3-way, 4-way, dead-end or connect cable to your gear's 600 Amp bushing with an equipment connection kit.

Matching a particular cable in accordance with any 3M modular splicing kit is also easy and precise. Kits are comprised of modular components and are assembled following the provided instructions. The only additional supplies you need are an adapter kit for each cable being connected, which provides a custom fit of your cable to the modular system. A T-wrench is also available for the kits containing a connecting plug.

With 3M modular splicing kits, you can install critical splices in the field quickly and reliably. And, you can re-enter for splice expansion or temporary dead-ending.



With 3M modular technology, every splice is designed to maintain the insulating and shielding integrity of the original cable.

3M cold shrink insulator (included in adapter kit) provides a fast, easy means of re-jacketing over the shield adapter and seals the splice to the cable jacket, permitting use in submerged locations such as manholes and vaults.

3M modular splicing kits install easily on standard shielded power cables and are compatible with copper and aluminum conductors. The 5815 Series kits are designed for use with Tape Shield, Wire Shield, UniShield® and Jacketed Concentric Neutral Cables. Meets requirements of ANSI/IEEE Standard 386.

Modular Splicing Kits

3M™ Modular Splicing Kit

Basic Splice 5815-S

Voltage Rating: 5-25 kV

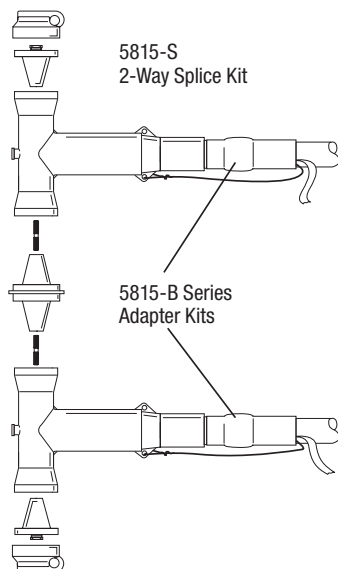
ANSI/IEEE Std. 386

The 5815-S, your basic splice, is for two-way shielded power cable connections. The 5815-S is easy to disconnect, without affecting integrity, while adding or removing cables. It is also an excellent alternative to expensive switches when isolating circuits for maintenance. The “square corner” configuration saves space.

Each 5815-S kit contains:

- 2 tee-modules
- 1 connecting plug
- 2 dead-end plugs
- 2 connecting studs
- 1 instruction booklet
- silicone lubricant

Note: A cable adapter kit is required for each cable.



3M™ Modular Tap Splicing Kit

5815-T Tap (Add On)

Voltage Rating: 5-25 kV

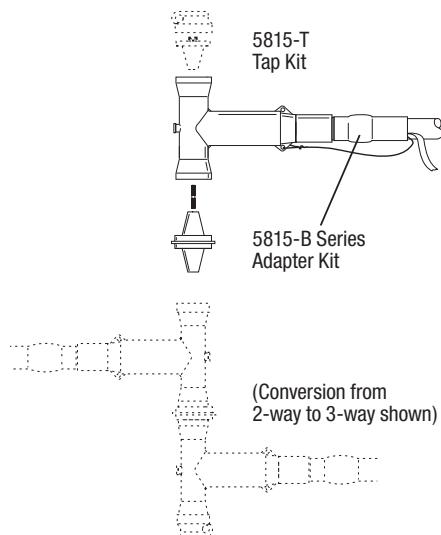
ANSI/IEEE Std. 386

The 5815-T provides an easy way to tap into an existing dead-end or to combine with a 5815-S splice for a three-way installation, while maintaining integrity of the original connection. Add on to the 5815-E equipment connection for an easy method of connecting parallel feeds.

Each 5815-T kit contains:

- 1 tee-module
- 1 connecting plug
- 1 connecting stud
- 1 instruction booklet
- silicone lubricant

Note: A cable adapter kit is required for each cable.



ORDERING INFORMATION

Product Number	Conductor Size Cu	Range Stranded Al	UPC (054007-)
5815-S	2 AWG-750 kcmil	2 AWG-1000 kcmil	04230
5815-T	2 AWG-750 kcmil	2 AWG-1000 kcmil	04231

3M™ Dead-End Modular Kit

Dead-End 5815-D

Voltage Rating: 5-25 kV

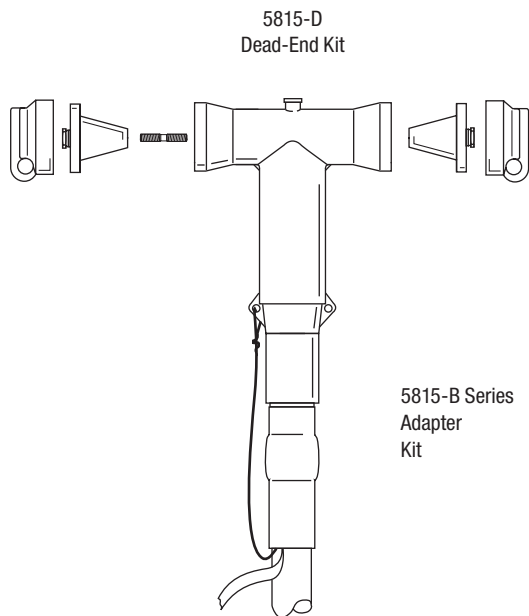
ANSI/IEEE Std. 386

Use the 5815-D for plan-ahead cable systems including submersible dead-end for cables put down during site construction.

Each 5815-D kit contains:

- 1 tee-module
- 2 dead-end plugs
- 1 connecting stud
- 1 instruction booklet
- silicone lubricant

Note: A cable adapter kit is required for each cable.



3M™ Modular Equipment Kit

Equipment Connection 5815-E

Voltage Rating: 5-25 kV

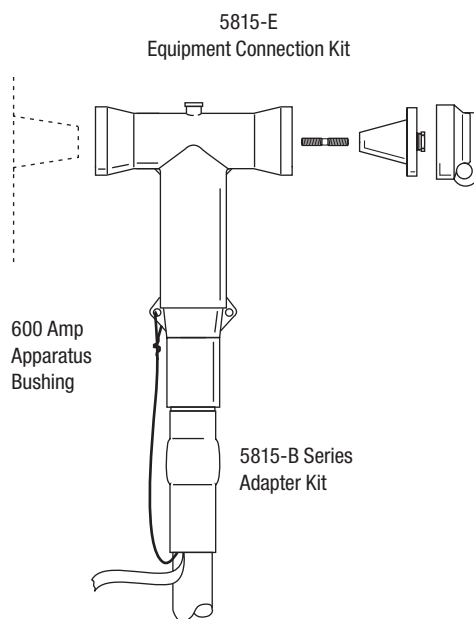
ANSI/IEEE Std. 386

This module permits connection to standard non-loadbreak 600 Amp bushings to provide fully shielded, dead-front cable connections to apparatus such as transformers, oil switches and transformer switches.

Each 5815-E kit contains:

- 1 tee-module
- 1 dead-end plug
- 1 connecting stud
- 1 instruction booklet
- silicone lubricant

Note: A cable adapter kit is required for each cable.



Ordering Information

Product Number	Conductor Size Cu	Range Stranded Al	UPC (054007-)
5815-D	2 AWG-750 kcmil	2 AWG-1000 kcmil	04233
5815-E	2 AWG-750 kcmil	2 AWG-1000 kcmil	04234

3M™ T-Wrench 5815-TW

The T-Wrench 5815-TW, available from 3M, is a 5/16-inch hex wrench and required to install the connecting plugs on the 5815-S and 5815-T kits.



Ordering Information

Product Number	Application	UPC (054007-)
5815-TW	T-Wrench for use with kits containing Connecting Plug(s)	43468

Maintains integrity
with
flexibility



Cable Adapter Kits

3M™ Quick Adapter Modular Kits 5815-B Series

Voltage Rating: 5 to 25 kV

Any of the cable adapter kits—each for a different combination of conductor size and insulation diameter—will fit directly into the main tee-module body of any 3M modular splicing kit. This permits splicing of common types of power cable (tape shield, wire shield, UniShield® and jacketed concentric neutral) with a minimum of basic kits.



Cable adapter kits include:

- 1 cable adapter
- 1 aluminum compression connector
- 1 cold shrink jacketing tube
- 1 constant force spring
- 1 ground braid assembly
- 2 mastic sealing strips
- 2 silicone lubricants
- 1 CC-3 cable cleaning pad kit
- 1 product information sheet

Note: One kit required for each cable being spliced.

Selection Guide for 3M™ Quick Adapter Modular Kits 5 and 8 kV

Kit No.	UPC (054007-)	Insulation Diameter Range Inches (mm)	5 kV (AWG/kcmil)				8 kV (AWG/kcmil)			
			100% (90 mils)		133% (115 mils)		100% (115 mils)		133% (140 mils)	
			Stranded	Compact/ Solid	Stranded	Compact/ Solid	Stranded	Compact/ Solid	Stranded	Compact/ Solid
5815-B1	04235	0.640-0.760 (16.3-19.3)			2/0	3/0	2/0	3/0		
5815-B2	04237	0.640-0.760 (16.3-19.3)	3/0	4/0						
5815-B5	04244	0.720-0.845 (18.3-21.5)							2/0	
5815-B6	04259	0.720-0.845 (18.3-21.5)			3/0	4/0	3/0	4/0	3/0	4/0
5815-B7	04260	0.720-0.845 (18.3-21.5)	4/0	250	4/0	250*	4/0	250*		
5815-B10	04263	0.720-0.845 (18.3-21.5)	250							
5815-B12	04603	0.785-0.970 (19.9-24.6)							4/0	250
5815-B15	04268	0.785-0.970 (19.9-24.6)			250		250		250	
5815-B17	04570	0.785-0.970 (19.9-24.6)	350							
5815-B23	04576	0.910-1.065 (23.1-27.1)			350		350		350	
5815-B29	43437	0.980-1.140 (24.9-29.0)	500		500		500			
5815-B35	43443	1.080-1.280 (27.4-32.5)							500	
5815-B40	43448	1.080-1.280 (27.4-32.5)	750							
5815-B43	43451	1.220-1.420 (31.0-36.1)			750		750		750	
5815-B45	43453	1.220-1.420 (31.0-36.1)	1000 Al							
5815-B46	43454	1.360-1.560 (34.5-39.6)			1000 Al		1000 Al		1000 Al	

Important: Final determining factor is Cable Insulation O.D. Range.

One kit required for each cable being connected.

*NOTE: Check actual cable insulation diameter to verify correct kit selection.

Selection Guide for 3M™ Quick Adapter Modular Kits 15 and 25 kV

Kit No.	UPC (054007-)	Insulation Diameter Range Inches (mm)	15 kV (AWG/kcmil)				25 kV (AWG/kcmil)			
			100% (175 mils)		133% (220 mils)		100% (260 mils)		133% (320 mils)	
			Stranded	Compact/ Solid	Stranded	Compact/ Solid	Stranded	Compact/ Solid	Stranded	Compact/ Solid
5815-B3	04238	0.640-0.760 (16.3-19.3)	2	1						
5815-B4	04239	0.640-0.760 (16.3-19.3)	1	1/0*						
5815-B5	04244	0.720-0.845 (18.3-21.5)	2/0	3/0*						
5815-B8	04261	0.720-0.845 (18.3-21.5)	1/0	2/0						
5815-B9	04262	0.720-0.845 (18.3-21.5)			2	1				
5815-B11	04264	0.785-0.970 (19.9-24.6)			1	1/0	1	1/0		
5815-B13	04266	0.785-0.970 (19.9-24.6)			1/0	2/0				
5815-B14	04267	0.785-0.970 (19.9-24.6)					2	1		
5815-B16	04269	0.785-0.970 (19.9-24.6)	3/0	4/0						
5815-B18	04571	0.785-0.970 (19.9-24.6)	4/0	250						
5815-B19	04572	0.785-0.970 (19.9-24.6)			2/0	3/0				
5815-B20	04573	0.910-1.065 (23.1-27.1)					1/0	2/0		
5815-B21	04574	0.910-1.065 (23.1-27.1)					2/0	3/0		
5815-B22	04575	0.910-1.065 (23.1-27.1)			3/0	4/0				
5815-B24	04577	0.910-1.065 (23.1-27.1)	250							
5815-B25	04578	0.910-1.065 (23.1-27.1)							2	1
5815-B26	04579	0.910-1.065 (23.1-27.1)			4/0	250				
5815-B27	04581	0.910-1.065 (23.1-27.1)							1	1/0
5815-B28	04582	0.980-1.140 (24.9-29.0)					3/0	4/0		
5815-B30	43438	0.980-1.140 (24.9-29.0)							1/0	2/0
5815-B31	43439	0.980-1.140 (24.9-29.0)							2/0	3/0
5815-B32	43440	0.980-1.140 (24.9-29.0)			250					
5815-B33	43441	0.980-1.140 (24.9-29.0)	350							

Important: Final determining factor is Cable Insulation O.D. Range.
 One kit required for each cable being connected.
 *NOTE: Check actual cable insulation diameter to verify correct kit selection.

Selection Guide for 3M™ Quick Adapter Modular Kits 15 and 25 kV

Kit No.	UPC (054007-)	Insulation Diameter Range Inches (mm)	15 kV (AWG/kcmil)				25 kV (AWG/kcmil)			
			100% (175 mils)		133% (220 mils)		100% (260 mils)		133% (320 mils)	
			Stranded	Compact/ Solid	Stranded	Compact/ Solid	Stranded	Compact/ Solid	Stranded	Compact/ Solid
5815-B34	43442	0.980-1.140 (24.9-29.0)					4/0	250*		
5815-B35	43443	1.080-1.280 (27.4-32.5)	500							
5815-B36	43444	1.080-1.280 (27.4-32.5)							3/0	4/0
5815-B37	43445	1.080-1.280 (27.4-32.5)					250			
5815-B38	43446	1.080-1.280 (27.4-32.5)			350					
5815-B39	43447	1.080-1.280 (27.4-32.5)							4/0	250
5815-B41	43449	1.220-1.420 (31.0-36.1)					350		350	
5815-B42	43450	1.220-1.420 (31.0-36.1)							250	
5815-B44	43452	1.220-1.420 (31.0-36.1)			500					
5815-B47	43455	1.360-1.560 (34.5-39.6)					500		500	
5815-B48	43456	1.360-1.560 (34.5-39.6)	750		750					
5815-B49	43457	1.480-1.700 (37.6-43.2)	1000 Al		1000 Al					
5815-B50	43461	1.480-1.700 (37.6-43.2)					750			
5815-B51	43465	1.640-1.840 (41.7-46.7)							750	
5815-B52	43466	1.640-1.840 (41.7-46.7)					1000 Al			
5815-B53	43467	1.780-1.965 (45.2-49.9)							1000 Al	

Important: Final determining factor is Cable Insulation O.D. Range.

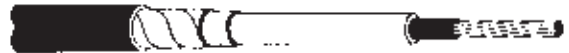
One kit required for each cable being connected.

*NOTE: Check actual cable insulation diameter to verify correct kit selection.

3M™ Cold Shrink Shield Adapter Kits 8459/8460 Series

3M Cold Shrink Shield Adapter Kits are designed for grounding and sealing tape, wire and UniShield® shielded power cables when using cable accessories such as elbows, modular splices and terminations.

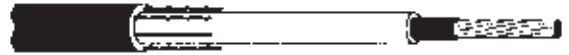
These cold shrink kits require no heat, special tools or special skills to install. The cold shrink kits come complete with all necessary components (except the cable accessory) and are installed in a few simple steps. We've even attached a "bleeder wire" to the ground strap eliminating the need for additional wire and connectors.



Tape Shield



Wire Shield



UniShield®



LC Shielded Cable

Always a custom fit



Specifications and Ordering Information for 3M Cold Shrink Shield Adapter Kits 8459/8460

Specifications	8459	8460	8461	8462
Cable Type	Tape Shielded, Wire Shielded, Unshield* See previous page for cable type illustration.			
Jacket O.D. Range				
Inches (mm)	0.59-1.05 (15,0-26,6)	0.83-1.64 (21,1-41,6)	1.27-2.17 (32,3-55,1)	1.70-2.60 (43,2-66,0)
Cable Size/Volt Class:				
Cable Size for 5/8 kV Class	8-1 kcmil (10-38)	1/0 AWG-350 kcmil (50-200 mm ²)	500-1000 kcmil (240-500 mm ²)	—
Cable Size for 15 kV Class	—	2-250 kcmil (35-150 mm ²)	350-1000 kcmil (185-500 mm ²)	1250-1750 kcmil (600-850 mm ²)
Cable Size for 25 kV Class	—	2-250 kcmil (35-150 mm ²)	350-750 kcmil (185-500 mm ²)	1000-1500 kcmil (600-725 mm ²)
Cable Size for 35 kV Class	—	2-1/0 kcmil (35-60 mm ²)	2/0 AWG-350 kcmil (70-200 mm ²)	500-1000 kcmil (240-500 mm ²)
Kit Components:				
Cold Shrink Sealing Tube	1	1	1	1
Mastic Sealing Strips 6" (152,4 mm)	3 strips	3 strips	3 strips	3 strips
Constant Force Spring	1	1	1	1
Pre-formed Ground Braid/Bleeder Wire	1	1	1	1
Scotch® 13 Semi-Conductive Tape	1 strip	1 strip	1 strip	1 strip
Instructions	1	1	1	1
Ordering Information				
UPC (054007-)	53236*	41458	41459	53131*
Inner Unit Pack	1/bag	1/bag	1/bag	1/bag
Case Qty.	3 kits	10 kits	10 kits	3 kits

*UPC prefix 055128

Splices

Glossary of Splicing Terms	313	Cold Shrink		5700A-MT Series	370
Cable Types for Splicing	314	5415A	348	46 kV Splices	370
Low Voltage Splices 0-600V	317	5416A	348	1/C Shielded-Tape, Wire, UniShield®, LC	
DBR/DBY and 3570-G Direct Bury	317	5417A	348	Cold Shrink	
Cold Shrink		5418A	348	5545A Series	370
8420 Series.....	318	1/C Shielded-Tape, Wire, UniShield®, LC		PILC Splices & Accessories	371
8430 Series.....	318	Molded Rubber		1/C Low Voltage Splices 0-600V	371
8440 Series.....	319	5500 Series	349	CS500Pb Series	371
Resins		Cold Shrink		1/C to 1/C15 kV Splices	372
72-N Series	320	5513A Series	350	QS-2000T Series	372
78-R Series	321	5514A Series	350	3/C to 1/C, 15 kV Splices	
85-14CP Series	323	5515A Series	350	QS-2000-3T Series	373
85 Series.....	323	5516A Series	350	QS-2000-3T-WS Series	373
90-B1 Series	324	Cold Shrink Branch		3/C to 3/C, 15 kV Splices	
82-BF1 Series	324	QS 2001B	352	QS-2013-3T-3C	374
4 Resin	325	QS 2000BA	352	5110-OS Series	374
2104 Resin.....	325	Tape		Connectors	
2123 Resin.....	325	5700 Series	353	2000T Series Oil Stop Connectors	375
2130 Resin.....	325	3/C Shielded	354		
2135 Wet-Niche Potting Compound.....	325	Resin/Cold Shrink			
2135M Cable Repair Compound	326	5760	354		
5/8 kV, 1/C and 3/C Resin Splice.....	327	Cable Splices			
Heat Shrink		5700A-MT Series	354		
UF Splice Kit.....	328	5700A-MT Trifurcating Accessory Kit	355		
USEB90 Flat Cable.....	328	MT-C	355		
IAL-3 Connector Sealing Kit.....	329	MT-E.....	355		
1 kV to 5/8 kV Splices	330	25/28 kV Splices	356		
1/C Non-Shielded	330	1/C JCN/CN	356		
Resins		Molded Rubber			
82-A Series	330	5420 Series	356		
82-B1 (Wye).....	330	5450 Series	357		
82-F1	331	5451A	357		
82-F2	331	5451R	358		
Cold Shrink		Cold Shrink			
5740	332	5456A Series	361		
1/C Shielded	333	5457A Series	361		
Cold Shrink		5458A Series.....	361		
5550 Series.....	333	1/C Shielded-Tape, Wire, UniShield®, LC			
9CK-300 Series	333	Cold Shrink			
3/C Non-Shielded	334	5524A Series.....	362		
Cold Shrink		5525A Series.....	362		
5730 Series.....	334	5526A Series.....	362		
4560 Armorcast	334	3/C Shielded	364		
TS Series.....	335	5700A-MT Series.....	364		
Resin/Cold Shrink		35 kV Splices	365		
5750 Series.....	339	1/C JCN/CN	365		
3/C Shielded	340	Molded Rubber			
Resin/Cold Shrink		5432 Series	365		
5551-3C-AC.....	340	5433 Series	365		
5760 Series.....	340	5461 Series	365		
5700A-MT Series	341	Cold Shrink			
15 kV Splices	342	5467A Series	366		
1/C JCN/CN	342	5468A Series.....	366		
Molded Rubber		1/C Shielded-Tape, Wire, UniShield®, LC			
5400 Series	342	5535A Series.....	368		
5411	342	5536A Series.....	368		
5411A	342	1/C Shielded			
5412	342	5467A-XB Series.....	369		
5411R	342	5468A-XB Series.....	369		
5412R	342	3/C Shielded	369		

3M™ Splice Solutions are designed to help you reduce the time, labor and cost involved in a variety of electrical cable splicing applications. The 3M product line covers splicing needs from 0-600V (1000V) to 46 kV applications, and promote dependable performance, stability and long life with every splice you make.

With 3M, you can choose the right splice to fit your specific needs. 3M incorporates field-proven technologies providing reliable, durable splicing products.

Cold Shrink Splices

3M cold shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied pre-stretched on a removable core for efficiency and ease of installation. The removable core unwinds after positioning the splice, allowing the product to shrink into position and form a moisture resistant seal. The live-memory action of the specially formulated material ensures a permanent, durable environmental seal and insulation.

All 3M medium voltage (15-46 kV) QS-III kits meet the requirements of IEEE-404, and each splice is factory tested on power cable to ensure long-term reliability and quality. 3M QS-III splices can be used for direct burial applications, as well as in manholes, vaults, cable trays, and junction boxes. All 3M cold shrink products require no special tools, flame or training to install.

Molded Rubber Splices

3M Molded Rubber QS and QS-II kits are molded from specially formulated, peroxide cured, EPDM rubber to provide a reliable medium voltage inline splice with a life expectancy equal to the cable.

All 3M medium voltage (15-35 kV) QS Series meet the requirements of IEEE-404, and each splice is factory tested.

PILC Splices

3M cold shrink splice kits for Paper Insulated Lead Covered (PILC) cable use 3M patented oil stop technology. Kits install without soldering or lead wiping. 3M cold shrink PILC splices allow quick installation time without the need of open flame or heat. Single conductor splice kits rated 1000V and 15 kV allow inline splicing of PILC to PILC or PILC to Poly/EPR insulated cable. Three conductor cable splice kits rated 15 kV are designed to transition splice three conductor PILC to three single conductor poly/EPR insulated cables. All splices are jacketed and can be fully submersed. Modular splice kits are available for single conductor PILC equipment connections and tap splicing.

Resin Splices

3M Resin Splicing Kits are used in a variety of applications where conditions require the unique properties of 3M resins. The splicing kits have a high degree of mechanical strength for physical protection of connections and provide moisture-resistant insulation in above ground or direct burial applications.

Tape Splices

When you want the versatility of tape, Scotch® Cable Splicing Kits are the answer for almost any application, regardless of cable type or size. Scotch® splicing tape is designed for extra-long shelf life, so there's less chance of being caught without the supplies you need for emergencies. Tape products are available to splice cables from 600V to 69 kV.

3M™ SPLICES MEET WORLDWIDE STANDARDS

- ANSI—American National Standards Institute
- UL—Underwriters Laboratories
- JCAA—Japan Power Cable Authority
- IEEE—Institute of Electrical and Electronics Engineer
- CSA—Canadian Standards Association
- VDE—Verband Deutscher Elektrotechniker
- Cenelec—European Standard

Glossary of Splicing Terms

Splice

A splice may be considered as two or more conductors joined with a suitable connector—reinsulated, reshielded and rejacketed with compatible materials—applied over a properly prepared surface. A splice may also be referred to as a cable joint.

High Voltage Cable Types

Of the nearly limitless variety of cables in use today, seven of the most common are:

- Tape shielded (or ribbon shielded)
- Drain wire shielded
- General Cable UniShield® Cable
- Longitudinally Corrugated (LC)
- Concentric Neutral (CN)
- Jacketed Concentric Neutral (JCN)
- Paper Insulated Lead Covered (PILC)

See page 314 for illustrations.

Insulation

A layer consisting of many different variations such as extruded solid dielectric, or laminar (oil paper or varnish cambric). Its function is to contain the voltage within the cable system. The most common solid dielectric insulations in use today are:

- Cross-Linked Polyethylene (XLP)
- Ethylene Propylene Rubber (EPR)

CHOOSING THE RIGHT SPLICES

Questions to ask yourself before ordering a splicing product

What Is Voltage Rating? 1 kV ____ 5 kV ____ 8 kV ____ 15 kV ____ 25/28 kV ____ 35 kV ____ 46 kV ____ Other ____

What Is Insulation Level? 100% ____ 133% ____

What Is Conductor Size? _____ AWG/kcmil

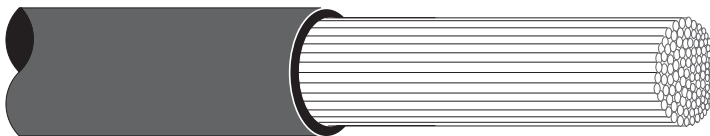
What Type of Metallic Shielding? (tape, drain wire, UniShield®, LC Shielded, Jacketed Concentric Neutral, other) _____
None _____

What Is Conductor Material? Copper (Cu) _____ Aluminum (Al/Cu) _____

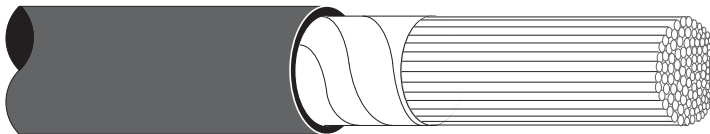
Cable Types for Splicing



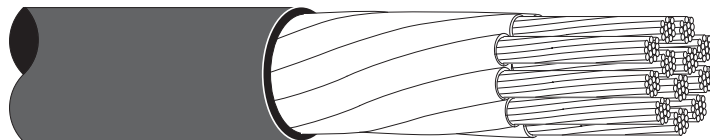
Single Conductor Cable



Multiple Conductor Unshielded Signal and Control Cable



Multiple Conductor Shielded Signal and Control Cable



Multiple Conductor, to 1000 Volt, Cable

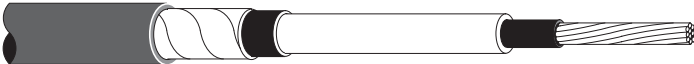


Non Shielded (Dry) Cable

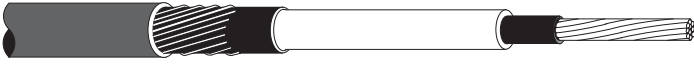


Non Shielded (Wet or Dry) Cable

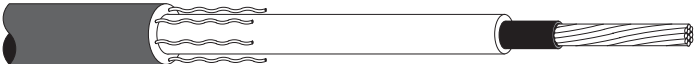
Cable Types for Splicing



Tape Shielded Cable



Wire Shielded Cable



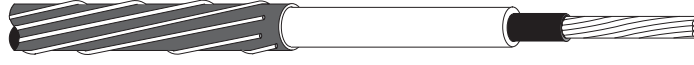
UniShield® Cable



Longitudinally Corrugated (LC) Shielded Cable



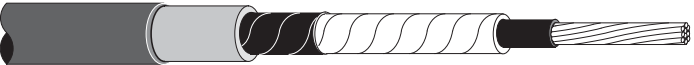
EP-Lead or XLP-Lead Cable



Concentric Neutral (CN) Cable

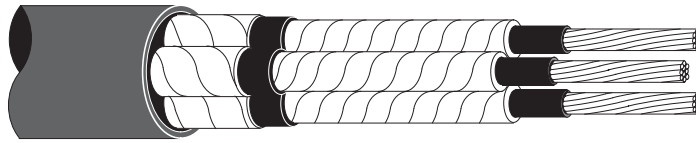


Jacketed Concentric Neutral (JCN) Cable

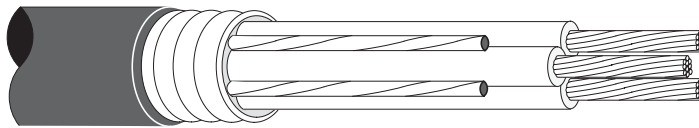


Paper Insulated Lead Covered (PILC) Cable

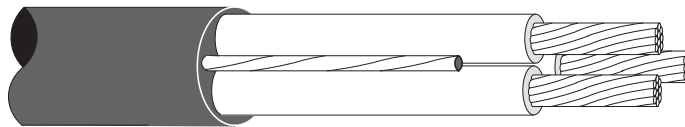
Cable Types for Splicing



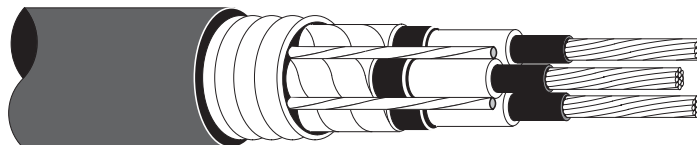
Three-Conductor Paper Insulated Lead Covered (PILC) Cable



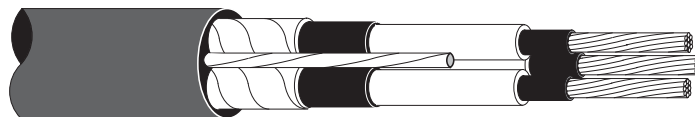
Three-Conductor Armored, Non Shielded Cable



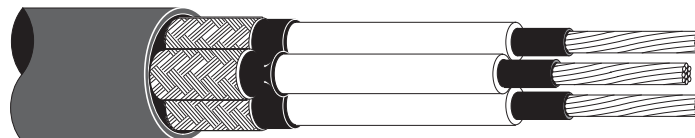
Three-Conductor Non-Armored, Non Shielded Cable



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

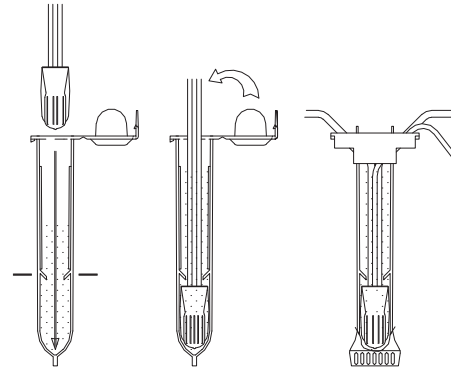


Three-Conductor Portable Cable Type SHD-GC

Low Voltage Splices 0-600V DBR and DBY Series

3M™ Direct Bury Products

These 3M underground electrical wire connectors are designed to splice and effectively moisture-seal two or more conductors for remote-control circuits in irrigation and landscape lighting systems. DBY-6 and DBR-6 are UL Listed and CSA Certified for 600V direct bury and submersion applications. UL File No. E102356 and CSA File No. LR91920. Each kit makes two splices.



Specification Information for 3M Direct Bury Products

Product Number	Description and Kit Contents	Wire Range (AWG)	Volts	Temperature Range	UL File No. E102356 and CSA File No. LR91920
DBR	(2) Tubes (2) 3M Scotchlok™ R Connectors	5#16 thru 3#10 (5,0 thru 16,0 mm ²)	30	32°-120°F (0°-49°C)	N/A
DBR-6	(2) Tubes (2) Scotchlok R Connectors	5#16 thru 3#10 (5,0 thru 16,0 mm ²)	600	32°-120°F (0°-49°C)	CE UL SF
DBY	(2) Tubes (2) Scotchlok Y Connectors	2-5#18 thru 2#12 (2,0 thru 7,5 mm ²)	30	32°-120°F (0°-49°C)	N/A
DBY-6	(2) Tubes (2) Scotchlok Y Connectors	2-5#18 thru 2#12 (2,0 thru 7,5 mm ²)	600	32°-120°F (0°-49°C)	CE UL SF
3570-G	Connector sealing pack containing 3M Scotchcast™ epoxy resin	Accommodates 3M O/B+, R/Y+, Scotchlok Y, R, G, B and 3M 212, 312, 512	600	32°-220°F (0°-105°C)	N/A

3M™ Direct Bury Low Voltage Splices DBR and DBY Selection

Product Number	UPC (054007-)	Inner Unit Pack	Case Qty.
DBR	09964 49696	Kit- 2 Tubes and 2 Scotchlok R Connectors 100 tubes and 100 connectors	25 kits 100 each
DBR-6	69756 49697	Kit- 2 Tubes and 2 Scotchlok R Connectors 100 tubes and 100 connectors	25 kits 100 each
DBY	09053 49698	Kit- 2 Tubes and 2 Scotchlok Y Connectors 100 tubes and 100 connectors	25 kits 100 each
DBY-6	69757 49699	Kit- 2 Tubes and 2 Scotchlok Y Connectors 100 tubes and 100 connectors	25 kits 100 each
3570-G	53241*	10/box	100 each

*UPC Prefix 051128-

Low Voltage Splices 0-600V (1000V rated) Cold Shrink Splices (0-1000V)

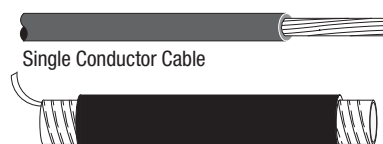
3M™ Splice Kits 8420 and 8430 Series

Cold shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied prestretched on a removable core for efficiency and ease of installation. Removal of the core (unwinding) after positioning the splice allows the product to shrink into position forming a moisture-tight seal. The live memory action of the specially formulated material promotes a permanent, durable environmental seal and insulation.

The 8420 meets requirements of ANSI C119-1 and Western Underground Guide 2.14 for secondary splices rated up to 1 kV.

3M™ Cold Shrink Silicone Insulators 8440 Series

3M Cold Shrink Silicone Insulators 8440 Series are insulating sleeves made from a specially formulated high-temperature silicone rubber with an operating temperature range from -67°F (-55°C) to 500°F (260°C).



3M™ Low Voltage Splices 8420 and 8430 Series Selection (0-600V)

Product Series	UPC (054007-)	Typical Conductor Size	Minimum Cable Diameter for Seal	Maximum** Diameter Insulator Covers	Maximum Connector Length	Relaxed Tube Length	Inner Unit Pack	Case Qty.
Single Conductor Cable See above for cable type illustration.								
8423-6	42146	6-4 AWG (14-16 mm ²)	0.31" (7,8 mm)	0.56" (4,3 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8424-8*	42390	10-1/0 AWG (6-16 mm ²)	0.10" (2,5 mm)	0.82" (20,9 mm)	3" (76 mm)	8" (203 mm)	1/bag	10
8425-8	42391	2-1/0 AWG (35-50 mm ²)	0.40" (10,1 mm)	0.82" (20,9 mm)	3" (76 mm)	8" (203 mm)	1/bag	10
8426-9	34457	2/0 AWG-250 kcmil (70-125 mm ²)	0.55" (13,9 mm)	1.18" (30,1 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8426-9M***	43436	2-4/0 AWG (30-90 mm ²)	0.40" (10,1 mm)	1.18" (30,1 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8426-11	34458	2/0 AWG-250 kcmil (70-125 mm ²)	0.55" (13,9 mm)	1.18" (30,1 mm)	7" (178 mm)	11" (279 mm)	1/bag	10
8427-6'	09915	—	0.69" (17,5 mm)	1.38" (35,1 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8427-12	34459	250-400 kcmil (125-200 mm ²)	0.69" (17,5 mm)	1.38" (35,1 mm)	8" (203 mm)	12" (305 mm)	1/bag	10
8427-16	34460	250-400 kcmil (125-200 mm ²)	0.69" (17,5 mm)	1.38" (35,1 mm)	12" (305 mm)	16" (406 mm)	1/bag	10
8428-6'	09916	—	0.95" (24,1 mm)	1.94" (49,2 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8428-12	09056	500-800 kcmil (300-400 mm ²)	0.95" (24,1 mm)	1.94" (49,2 mm)	8" (203 mm)	12" (305 mm)	1/bag	10
8428-18	34461	500-800 kcmil (300-400 mm ²)	0.95" (24,1 mm)	1.94" (49,2 mm)	14" (356 mm)	18" (457 mm)	1/bag	10
8429-6'	09917	—	1.27" (32,2 mm)	2.67" (67,8 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8429-9	09931	900-1000 kcmil (500 mm ²)	1.27" (32,2 mm)	2.67" (67,8 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8429-12	42389	900-1000 kcmil (500 mm ²)	1.27" (32,2 mm)	2.67" (67,8 mm)	8" (203 mm)	12" (305 mm)	1/bag	10
8429-15	44198	900-1000 kcmil (500 mm ²)	1.27" (32,2 mm)	2.67" (67,8 mm)	11" (279 mm)	15" (381 mm)	1/bag	10
8429-18	34462	900-1000 kcmil (500 mm ²)	1.27" (32,2 mm)	2.67" (67,8 mm)	14" (356 mm)	18" (457 mm)	1/bag	10
8430-9	42147	1250-2000 kcmil	1.68" (42,6 mm)	3.69" (93,7 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8430-18	42388	1250-2000 kcmil	1.68" (42,6 mm)	3.69" (93,7 mm)	14" (356 mm)	18" (457 mm)	1/bag	10

*Kit contains adapters. **Cable or connector diameter. ***Mastic pads included for cable O.D. build-up.

[†] These sizes are listed for availability only and are not designed to be used as primary insulation. These tubes are for conduit sealing and breakouts. Important: Use insulation jacket or connector O.D. for final ordering criteria. Note: Additional sizes are available, consult your 3M sales representative.

3M™ Low Voltage Splices 8440 Series Selection (0-600V)

Product Series	UPC (054007-)	Typical Conductor Size	Minimum Cable Diameter for Seal	Maximum* Diameter Insulator Covers	Relaxed Tube Length	Inner Unit Pack	Case Qty.
Single Conductor Cable See page 314 for cable type illustration.							
8443-2	09485	6-2 AWG (14-30 mm ²)	0.27" (7 mm)	0.56" (14 mm)	2.0" (51 mm)	1/bag	12
8443-6.5	09482	6-2 AWG (14-30 mm ²)	0.27" (7 mm)	0.56" (14 mm)	6.5" (165 mm)	1/bag	12
8445-2.5	09486	2-1/0 AWG (35-50 mm ²)	0.35" (9 mm)	0.72" (18 mm)	2.5" (64 mm)	1/bag	12
8445-7.5	09483	2-1/0 AWG (35-50 mm ²)	0.35" (9 mm)	0.72" (18 mm)	7.5" (191 mm)	1/bag	12
8447-3.2	09487	1/0-3/0 AWG (60-80 mm ²)	0.48" (12 mm)	0.95" (24 mm)	3.2" (81 mm)	1/bag	12
8447-8	09484	1/0-3/0 AWG (60-80 mm ²)	0.48" (12 mm)	0.95" (24 mm)	8.0" (203 mm)	1/bag	12

*Cable or connector diameter.

Note: Additional sizes are available, consult your 3M sales representative.

PRODUCT REFERRAL GENERATOR

Cold Shrink End Caps..... pg. 398

3M™ Cold Shrink Low Voltage Connector Insulator QSLV-M Series

The 3M Cold Shrink Connector Insulator QSLV-M Series provides quick, consistent installation and impact resistance for direct bury secondary low-voltage applications. The unique 3-core design and factory-installed ring of sealing mastic inside each end of the tube protects the connection and increases the range-taking capability of the QSLV-M insulator.



The QSLV-M insulator meets requirements for ANSI C119.1.

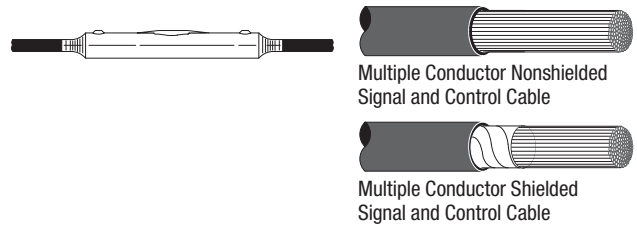
3M Cold Shrink Low Voltage Connector Insulator QSLV-M Series Selection

Product Series	UPC 051128-	Cable Size Range		Cable Insulation O.D. Range in. (mm)	Max. Connector O.D. in. (mm)	Max. Connector Length in. (mm)
		Aluminum	Copper			
QSLV-M 8-2/0	57268	8-2/0	8-3/0	0.20-0.75" (5-19 mm)	0.687" (17 mm)	2.5" (63 mm)
QSLV-M 2-500	57269	2-500	2-1000	0.40-1.60" (10-41 mm)	1.500" (38 mm)	4.25" (108 mm)

3M™ Resin Signal and Control Cable Splices 0-600V (1000V rated)

3M™ Scotchcast™ Inline Splice Kits 72-N Series

3M Scotchcast Kits 72-N Series splice shielded or nonshielded plastic- and rubber-jacketed, signal and control cables rated up to 1 kV.



Connectors are not included, order separately. See page 108-110 in the “Insulated Butt Connectors” section for connector ordering information. Each kit makes one splice.

3M™ Scotchcast™ 72-N Series Selection (Based on Cable O.D. Size)

Product Series	UPC (054007-)	Molded Body Length	Cable O.D. Range	Inner Pack	Case Qty.
Multiple Conductor Nonshielded Signal and Control Cable, Multiple Conductor Shielded Signal and Control Cable See above for cable type illustrations.					
72-N1*	10623	7-1/8" (18,1 cm)	0.25-0.625" (6-16 mm)	1	10
72-N2	10625	10-7/16" (26,8 cm)	0.500-1.00" (13-25 mm)	1	10
72-N3	10627	15-7/16" (39,2 cm)	0.625-1.50" (16-38 mm)	1	10
72-N4	10629	15-5/8" (39,7 cm)	1.00-2.00" (25-51 mm)	—	1
72-N5	10631	20-5/16" (51,6 cm)	1.25-2.25" (32-57 mm)	—	1
72-N6	10633	25" (63,5 cm)	1.25-3.25" (32-83 mm)	—	1

* Nonshielded cable only.

3M Scotchcast 72-N Series Selection (Based on Conductor/Connector Bundle)

Kit No.	Scotchlok™ Insulated Butt Connectors											
	MV18BC 22-18 AWG				MV14BC 16-14 AWG				MV10BC 12-10 AWG			
	Shielded Cables**		Unshielded Cables**		Shielded Cables**		Unshielded Cables**		Shielded Cables**		Unshielded Cables**	
No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	
72-N1*	—	—	6	3	—	—	4	2	—	—	3	—
72-N2	18	9	32	16	12	6	19	9	8	4	13	6
72-N3	42	21	75	37	24	12	45	22	14	7	27	13
72-N4	74	37	160	80	50	25	90	45	40	20	60	30
72-N5	140	70	200	100	120	60	160	80	100	50	100	50
72-N6	360	180	400	200	220	110	250	125	180	90	200	100

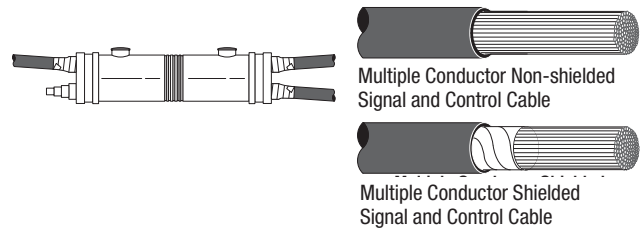
*Nonshielded cable only.

**Figures based on IMSA cable specifications.

3M™ Resin Signal and Control Cable Splices 0-600V (1000V rated)

3M™ Scotchcast™ Reenterable Inline and Tap Splice Kits 78-R Series

3M Scotchcast 78-R Series Kits make inline or tap splices on shielded or nonshielded, plastic- and rubber-jacketed, signal and control cable rated up to 1 kV. **Connectors are not included, order separately.** Refer to the “Terminals, IDCs and Wire Connectors” section for ordering information. Each kit makes one splice.



3M™ Scotchcast™ 78-R Series Splice Selection

Product Series	UPC (051128-)	Kit Size I.D. x L	Cable O.D. Range		Case Qty.
			Run	Tap	
Multiple Conductor Nonshielded Signal and Control Cable, Multiple Conductor Shielded Signal and Control Cable See above for cable type illustrations.					
78-R1	55115	2 x 12" (5,1 x 30,5 cm)	0.25-1.00" (6-25 mm)	0.25-1.00" (6-25 mm)	1
78-R2	55116	2 x 24" (5,1 x 61,0 cm)	0.25-1.00" (6-25 mm)	0.25-1.00" (6-25 mm)	1
78-R3	55117	3 x 24" (7,6 x 61,0 cm)	0.50-1.50" (13-38 mm)	0.50-1.00" (13-25 mm)	1
78-R4	55118	4 x 24" (10,2 x 61,0 cm)	0.50-2.00" (13-51 mm)	0.50-1.75" (13-44 mm)	1
78-R5	55119	5 x 26" (12,7 x 66,0 cm)	1.00-2.50" (25-64 mm)	1.00-2.50" (25-64 mm)	1

3M™ Scotchcast™ 78-R Series Connector Selection

Kit No.	Scotchlok™ Connectors																	
	Insulated Butt Connectors						Pigtail Connectors						Tap Connectors					
	MV18BC 22-18 AWG		MV14BC 16-14 AWG		MV10BC 12-10 AWG		"Y" 18-12 AWG		"R" 14-10 AWG		557 22-18 AWG		558 22-18 AWG		560 18-14 AWG		562 12-10 AWG	
No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	
78-R1	40	20	26	13	16	8	8	4	5	2	15	7	10	5	8	4	6	3
78-R2	66	33	45	22	26	13	20	10	10	5	30	15	20	10	16	8	12	6
78-R3	160	80	110	55	70	35	50	25	28	14	80	40	50	25	40	20	36	18
78-R4	300	150	180	90	110	55	84	42	60	30	142	71	100	50	80	40	68	34
78-R5	550	275	320	160	200	100	174	87	120	60	260	130	200	100	160	80	130	65

Note: Above figures based on IMSA cable specifications.

Components for Use After Re-entering

Product Number	Product Description	UPC 051128-	Case Qty.
7820	Spacer Web, two 3" x 20' rolls/box (76 mm x 6,1m)	02415*	1
2123-C	Scotchcast Reenterable Compound Size C 12.3 oz. (350g), 23.7 cu. in. (338,3 cu. cm.)	55120	10
2123-D	Scotchcast Reenterable Compound Size D 21.2 oz. (600g), 40.6 cu. in. (665,3 cu. cm.)	55121	10

*UPC prefix 054007-

Strengthens
connections
and cuts
costs



3M™ Resin Splices 0-600V (1000V rated)

3M™ Scotchcast™ Multi-Mold Resin Splice Kit 85-14CP-Cathodic Protection

The 3M Scotchcast Multi-Mold Resin Splice Kit 85-14CP is rated for cables up to 1 kV to insulate odd-shaped and odd-sized splices. The 85-14CP is specifically designed for use in cathodic protection with a rigid epoxy resin, 3M™ Scotchcast 4. Each kit makes one splice.



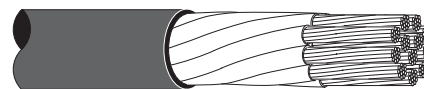
Single Conductor Cable

3M™ Scotchcast™ Multi-Mold Resin Splice Kit 85 Series

The 3M Scotchcast Multi-Mold Resin Splice Kit 85 Series are used to electrically insulate odd-sized and odd-shaped splices on cables rated through 1 kV. These flexible plastic molds are easily formed around splices. Within 30 minutes after the resin has been poured, the splice is ready for service—above ground or buried. Each kit makes one splice.



Single Conductor Cable



Multiple Conductor Cable

3M™ Scotchcast™ 85 Series Selection

Product Series	UPC (054007-)	Maximum Conductor Size Split Bolt	Compression, H or C tap	Inner Pack	Case Qty.
Single Conductor Cable See above for cable type illustrations.					
85-14CP	31927	2/0 AWG stranded	4/0 AWG stranded	1/box	10
Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.					
85-10	11846	8 AWG stranded	4 AWG stranded	1/box	10
85-12	11847	1 AWG stranded	2/0 AWG stranded	1/box	10
85-14	11848	2/0 AWG stranded	4/0 AWG stranded	1/box	10
85-16	02403	750 kcmil stranded* 250 kcmil (run) 2/0 AWG stranded (tap)	500 kcmil (run) 4/0 AWG stranded (tap)	1/box	10

*Inline compression connector.



3M™ Resin Splices 0-600V (1000V Rated)

3M™ Scotchcast™ Wye Resin Splice Kit 90-B1

3M Scotchcast Wye Resin Splice Kit 90-B1 is designed to insulate and moisture-seal wye splices made with the split-bolt type connectors on cables rated through 1 kV. Each kit makes one splice.



Single Conductor Cable



Multiple Conductor Cable

3M™ Scotchcast™ Splice 90-B1 Selection

Product Series	UPC (054007-)	Cable O.D. Range		Maximum Connector		Inner Pack	Case Qty.
		Run	Tap	Split Bolt	Crimped		
Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.							
90-B1	25115	0.500-0.812" (13-21 mm)	0.375" max. (10 mm)	1/0 AWG	2/0 AWG	1/box	10

3M™ Scotchcast™ Flexible Power Cable Tap Splice Kit 82-BF1

3M Scotchcast Flexible Power Cable Tap Splice Kit 82-BF1 is for use on unshielded portable power cables and cords. 82-BF1 can be used on single conductor or multiple conductor cables using a compression “C” tap connector. 3M molds 82-BF1 are removable and reusable. The 82-BF1 is a permanent splice as assigned by the Mine Safety and

Health Administration (P-142-5 MSHA). **Connectors are not included, order separately.** See page 147 in the “Lugs & Connectors” section for ordering information. Each kit makes one splice.



Single Conductor Cable



Multiple Conductor Cable

3M™ Scotchcast™ Tap Splice Kit 82-BF1 Selection

Product Series	UPC (054007-)	Conductor Size	Cable O.D. Range	Inner Pack	Case Qty.
Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.					
82-BF1	08309	Up to 1/0 AWG (50 mm)	0.25-0.80" (6,4-20,3 mm)	1/box	10

Resin



3M™ Scotchcast™ Electrical Insulating Resin 4

3M Scotchcast Electrical Insulating Resin 4 is a two-part epoxy insulating and encapsulating resin packaged in five sizes. Use 3M Scotchcast Resin 4 to splice solid dielectric and oil-filled cables up to 8 kV. Flash point: 300°F (149°C) or higher.



3M™ Scotchcast™ Electrical Insulating and Sealing Compound 2104

3M Scotchcast Electrical Insulating and Sealing Compound 2104 is a two-part, low-viscosity polyurethane for permanent splice protection. This resin is included in the multi-mold splicing kits.



3M™ Scotchcast™ Reenterable Electrical Insulating and Sealing Compound 2123

Shield electrical connections against water damage with 3M Scotchcast Reenterable Electrical Insulating and Sealing Compound 2123, the most effective moisture protection available. Unique mix-in-the-bag preparation of this polybutadiene resin makes the resin easy to prepare and apply. The visible, re-enterable moisture seal is a

reliable barrier against the constant exposure to water in certain applications. Often used for potting flush mounted junction boxes.



3M™ Scotchcast™ Flame Retardant Compound 2130

3M Scotchcast Flame Retardant Compound 2130 is a flexible, permanent, urethane resin used for jacket repair or splicing portable cables. It is flame retardant.



3M™ Scotchcast™ Wet-Niche Potting Compound 2135

3M Scotchcast Wet-Niche Potting Compound 2135 is the first “listed” product that meets NEC requirements to allow the use of rigid nonmetallic conduit in the installation of wet-niche underwater lighting fixtures. 2135 provides protection against corrosion and possible deteriorating effects of pool water by reliably encapsulating the 8 AWG ground connection in a wet-niche shell. The wet-niche forming shell is a corrosion-resistant metal housing for underwater fixtures in permanently installed pools. **Article 680-20(b)(1) National Electrical Code. UL Listed 2L02.**

Scotchcast 2135 potting compound is packaged in an easy-mix 1.8-oz. Unipak container. This thixotropic resin will not sag or drip. The encapsulated connection gels in minutes and can be submerged within four hours. Each kit contains enough material to complete one fixture.

Specifications and Ordering Information for 3M™ Scotchcast™ Resins

Product Number	UPC (054007-)	Size/Type of Package	Inner Unit Pack	Case Qty.
3M Scotchcast Electrical Insulating Resin 4				
4-A	43165	A/3.2 oz. (90 g), 4.8 cu. in. (78,6 cu. cm)	–	10 cont.
4-B	43166	B/7.4 oz. (209 g), 11.2 cu. in. (183,5 cu. cm)	–	10 cont.
4-C	43167	C/14.7 oz. (418 g), 22.3 cu. in. (365,4 cu. cm)	–	10 cont.
4-D	04206	D/22.2 oz. (630 g), 33.6 cu. in. (550,6 cu. cm)	–	10 cont.
4-E	04207	E/10.4 oz. (294 g), 15.7 cu. in. (257,2 cu. cm)	–	10 cont.
3M Scotchcast Electrical Insulating and Sealing Compound 2104				
2104-A	31189	A/3.46 oz. (98 g), 5.7 cu. in. (93,4 cu. cm)	–	10 each
2104-B	31382	B/7.4 oz. (210 g), 12.6 cu. in. (206,4 cu. cm)	–	10 cont.
2104-C	31383	C/14.82 oz. (420 g), 25.4 cu. in. (416,2 cu. cm)	–	10 cont.
2104-D	11849	D/23.8 oz. (675 g), 40.8 cu. in. (668,5 cu. cm)	–	10 each
3M Scotchcast Reenterable Electrical Insulating and Sealing Compound 2123				
2123-C	55120*	C/12.3 oz. (350 g), 23.7 cu. in. (338,3 cu. cm)	1/box	10 each
2123-D	55121*	D/21.2 oz. (600 g), 40.6 cu. in. (665,3 cu. cm)	1/box	10 each
3M Scotchcast Flame Retardant Compound 2130				
2130-B	31401	B/7.6 oz. (216 g), 10.7 cu. in. (175,3 cu. cm)	1/box	10 each
2130-C	31402	C/21.7 oz. (616 g), 30.5 cu. in. (499,8 cu. cm)	1/box	10 each
2130 Part A	50237	A/5 gal. (18,93 L)	–	1 pail
2130 Part B	50238	B/5 gal. (18,93 L)	–	1 pail
3M Scotchcast Wet-Niche Potting Compound 2135				
2135	69798	F/1.83 oz. (52,5 g), 3.3 cu. in. (54,0 cu. cm)	1/box	10 each
3M Scotchcast Cable Repair Compound 2135M				
2135M	50433	F/6.9 oz. (195 g), 12.25 cu. in. (31,12 cu. cm)	–	10 each
*UPC prefix 051128-				

5/8 kV, 15 kV and 25 kV Resin Pressure System

The 3M™ Resin Pressure System is comprised of several components used for constructing splices or splice jackets on medium voltage power cables for harsh environments. 3M™ Scotchcast™ Electrical Insulating Resin 4 is a key component of the system, which can be used as the primary insulation for shielded and non-shielded splices rated up to 8 kV. The system is also available as a resin-jacketed tape-

splice (TapeCast™) rated up to 25 kV. The resin is a two-part epoxy, packaged in a special Unipak container that provides the exact mixing ratio for making a strong, dependable and long-lasting splice or splice jacket. The versatile resin system accommodates a variety of splice configurations and cables.

3M™ Resin™ Pressure System Components

Voltage Class	Number of Conductors	Shielding	Insulation Material	Splice Configuration
5 and 8 kV	1/C, multi/C and transitions from multi-to single conductor	Non-shielded, Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN	Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric	Inline, Wye and Tee Resin Splice
15 kV	1/C, multi/C and transitions from multi-to single conductor	Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN	Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric	Inline and Tee TapeCast™ Splice
25 kV	1/C, multi/C and transitions from multi-to single conductor	Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN	Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric	Inline and Tee TapeCast™ Splice

These Resin and 3M™ TapeCast Splices will also work on sector shaped conductors.

A resin pressure system splice is suitable for submerged locations (e.g., manholes and vaults), underground direct burial, and aerial applications. Detailed instructions containing bill-of-materials are available by contacting the 3M Electrical Products Division's Energy Helpline

at (512) 984-5000. All parts are ordered separately. See "Insulating and Splicing Tapes," "Cable Accessory Products" and "Cable Accessory Products—Preparation and Cleaning" for ordering information on other parts for TapeCast Systems. Contact your local 3M representative for further details.

3M Resin Pressure System Components

Product	UPC (054007-)	Description	Case Qty.
4-B	43166	Scotchcast Electrical Insulating Resin 4 (7.4 oz./209 gm)	10
4-C	43167	Scotchcast Electrical Insulating Resin 4 (14.7 oz./418 gm)	10
E-4	25701	Scotchcast Resin-Pressure Gun (reusable tool)	1
P-1B*	11857	Scotchcast Injection Fitting	5
P-5B*	11858	Scotchcast Nozzle	5
P-3	25735	Scotchcast Spacer Tape	50
P-4	25743	Scotchcast Restricting Tape	50

* Ordered by the box; each box contains 10 fittings or nozzles

Heat Shrink Splices 0-600V

3M™ Splice Kit UF



3M Splice Kit UF is designed to provide a reliable, moisture proof electrical connection for Type U.F.-B underground feeder cable rated for 600 volts ranging from #14/3 without ground wire up to #8/3 with ground wire.

The 3M Splice Kit UF consists of a connector-insulation assembly and a heat shrink tube. The connector assembly contains four cylindrical set screw connectors separated by a piece of vinyl insulation. The heat shrink tube is a heavy-wall, adhesive-lined tube.

Underground Feeder (UF)-B cables are flat, and typically have three solid conductors without ground or two solid conductors with a ground. They range in size from 8 AWG to 14 AWG. The most common UF cable size is 10-14 AWG.

The 3M UF Splice Kit is offered in two versions: UF1 Standard Kit includes a 1.8" length terminal connector and an 8" length of heavy-wall, adhesive-lined heat shrink tube. UF2 Stretcher Kit has an 11.7" terminal connector and a 20" length of heavy-wall, adhesive-lined heat shrink tube.

The Standard Kit is used in most of the applications. The Stretcher Kit is used in situations where a 7-10" section of the cable has been damaged or destroyed. It eliminates two connectors and a short piece of cable during repair.

Ordering Information for 3M UF Splice Kits

Product Number	UPC (054007-)	Description	Inner Unit Pack	Case Qty.
UF1	42920	UF Splice Kit-Standard 1.8" connector/8" heat shrink tube	—	6 kits/cs.
UF2	42921	UF Splice Kit-Stretcher 11.7" connector/ 20" heat shrink tube	—	6 kits/cs.

Ordering Information for 600V Inline Splice Kits, for Flat Cable USEB90

Product Number	UPC (051141-)	Description	Case Qty.
USEB90-2	03449	Conductor Size #2 AWG	5 kits/cs.
USEB90-1/0	03448	Conductor Size 1/0 AWG	5 kits/cs.
USEB90-2/0	03450	Conductor Size 2/0 AWG	5 kits/cs.
USEB90-4/0	03451	Conductor Size 4/0 AWG	5 kits/cs.
9CK-FCM-1 • uses Scotchcast Resin	64031*	Conductor Size 1/0-4/0 AWG Mould length 14" (355 mm) Cable Type USEB-90	1 kit/cs.
9CK-FCM-2 • uses Scotchcast Resin	64032*	Conductor Size #2-1/0 AWG Mould length 10.25" (260 mm) Cable Type USEB-90	1 kit/cs.

* UPC prefix 054007-
For USEB90, these products are only available in Canada.

3M™ Airport Lighting Connector Sealing Kit IAL-3

3M Airport Lighting Connector Sealing Kit IAL-3 is designed especially to meet the high demands on airport lighting connections. It meets specifications for sealing FAA Specification L-823 connectors. Each kit includes a 16-inch heat shrinkable sleeve, cleaning pad and instructions.

Specification and Ordering Information for 3M Airport Lighting Connector Sealing Kit IAL-3

Product Number	UPC (054007-)	Expanded/Recovered I.D.	Inner Unit Pack	Case Qty.
IAL-3	08862	1.38/0.38" (34/10 mm)	1/bag	30

1 kV to 5 kV Non-Shielded Resin Splices

3M™ Scotchcast™ Inline Resin Splice Kit 82-A Series



Use the 3M Scotchcast Inline Resin Kit 82-A Series to insulate and seal single conductor, unshielded cable splices through 5 kV and multiple conductor cables through 1 kV.

The 82-A series is UL Listed 486D,

File Number E102356. Connector is not included, order separately. Each kit makes one splice.



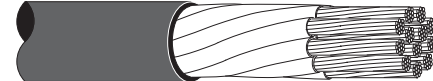
Nonshielded Dry Cable



Nonshielded Wet or Dry Cable



Single Conductor Portable Cable



Multiple Conductor Portable Cable

3M Scotchcast Inline Resin Kit 82-A Series Selection

Product Series	UPC (054007-)	Maximum Cable O.D.	Maximum Connector O.D.	Conductor Size*	Inner Pack	Case Qty.
Non-Shielded Dry Cable, 5 kV, Nonshielded Wet or Dry Cable, 5 kV, Single Conductor Cable to 1000 Volt, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.						
82-A	25016	0.750" (19 mm)	0.406" (10 mm)	10-2 AWG (6-30 mm ²)	1/box	10
82-A1	25024	0.625" (16 mm)	0.406" (10 mm)	Up to 2 AWG (30 mm ²)	1/box	10
82-A2	25032	1.000" (25 mm)	0.625" (16 mm)	2-3/0 AWG (35-80 mm ²)	1/box	10
82-A3	25040	1.563" (40 mm)	1.000" (25 mm)	3/0-400 kcmil** (95-200 mm ²)	1/box	10

* Important: Use insulation jacket or connector O.D. for final ordering criteria.
** 500 kcmil when using a Scotchlok 10014 copper compression connector.

3M™ Scotchcast™ Wye Resin Splice Kit 82-B1

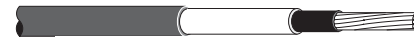


3M Scotchcast Wye Resin Splice Kit 82-B1 is designed to insulate and seal wye splices for compression tap connectors (e.g., C-tap or H-tap) rated for cables up to 5 kV.

Use on nonshielded cables through 5 kV and on multiple conductor cables through 1 kV. Each kit makes one splice.



Nonshielded Dry Cable



Nonshielded Wet or Dry Cable



Single Conductor Portable Cable



Multiple Conductor Portable Cable

3M Scotchcast Wye Resin Splice Kit 82-B1 Selection

Product Series	UPC (054007-)	Voltage Rating	Maximum Connector		Cable O.D.	Inner Pack	Case Qty.
			Split Bolt	Crimped			
Non-Shielded Dry Cable, Nonshielded Wet or Dry Cable, Single Conductor Cable, Multiple Conductor to 1000 Volt Cable. See above for cable type illustrations.							
82-B1	25057	5 kV Single Conductor 1 kV Multiple Conductor	4 AWG	2 AWG	0.250-0.625" (6-16 mm)	1/box	10

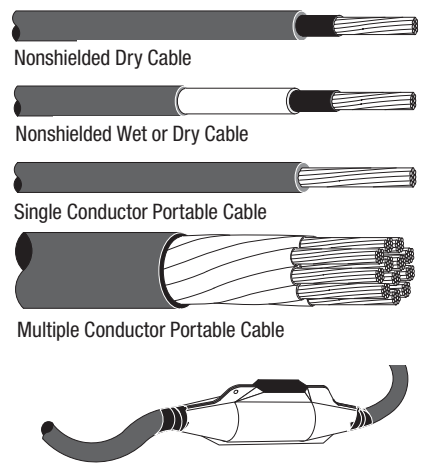
1/C, 5 kV, Non-Shielded Resin Splices & Multi/C, 1kV, Non-Shielded Resin Splices

3M™ Scotchcast™ Inline Splice Kit for Flexible Power Cable 82-F1 and 82-F2

3M Scotchcast Kits 82-F1 and 82-F2 are for use on unshielded, portable power cables. The kits are rated up to 5 kV for single conductor and up to 1 kV for multiple conductors. The kits are designed to be used with inline compression connectors.

The Scotchcast kits 82-F series are permanent splices as assigned by the Mine Safety and Health Administration (P-142-5 MSHA).

Connectors are not included, order separately.



3M™ Scotchcast™ Kit 82-F1 and 82-F2 Inline Selection

Product Series	UPC (054007-)	Cable O.D. Range	Voltage Rating	Conductor Size	Number of Conductors	Maximum Conductor O.D.	Inner Pack	Case Qty.
Non-Shielded Dry Cable, Nonshielded Wet or Dry Cable, Portable Single Conductor Cable, Portable Multiple Conductor to 1000 Volt Cable. See above for cable type illustrations.								
82-F1	08307	0.25-0.80" (6-20 mm)	5 kV 1 kV (600/2000)*	6-1/0 AWG** (16-50 mm ²)	1 multi	0.62" (18 mm) 0.90" (23 mm)	1/box	10
82-F2	08308	0.80-1.20" (20-30 mm)	5 kV 1 kV (600/2000)*	2/0-4/0 AWG** (70-95 mm ²)	1 multi	0.82" (21 mm) 1.30" (33 mm)	1/box	10

* Mine portable cable rating
**Base selection on cable O.D. range.

1/C, 5/8 kV, Non-Shielded Cold Shrink Splices

3M™ 5/8 kV Inline Splice Kit 5740 Series



3M 5/8 kV Inline Splice Kit Series are used for single conductor, non-shielded 5/8 kV cables. Each kit is a cold shrink design and contains enough material to insulate three (3) splices.



Nonshielded (Dry) Cable



Nonshielded (Wet or Dry) Cable

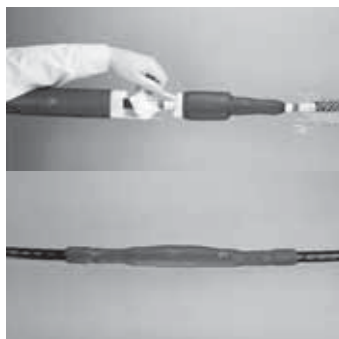
3M 5/8 kV Inline Splice Kit 5740 Series Selection

Product Series	UPC (054007-)	Conductor Size		Maximum Connector Length (Copper or Aluminum)	Typical Splice Length	Insulation/Jacket O.D. Range	Cable Case Qty.
		Copper	Aluminum				
Non-Shielded Dry Cable, Nonshielded Wet or Dry Cable See above for cable type illustrations.							
5741	49491	8-4 AWG (10-25 mm ²)		2.5" (64 mm)	10" (254 mm)	0.38-0.70" (9,7-17,8 mm)	1
5742	49492	2 AWG-300 kcmil (35-150 mm ²)		4.5" (108 mm)	12" (305 mm)	0.63-1.20" (16,0-30,5 mm)	1
5743	49493	350-1000 kcmil (185-500 mm ²)	350-750 kcmil (185-400 mm ²)	6.25" (159 mm)	15" (381 mm)	0.90-2.10" (22,9-53,3 mm)	1

Note: Be sure to order the correct size connector to complete the splice, see page 341

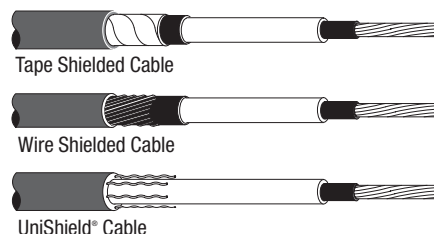
1/C, 5/8 kV, Shielded-Tape, Wire, and UniShield® Cold Shrink Splices

3M™ Splice Kits 5550 Series



3M Splice Kit 5550 Series are for splicing 5 kV and 8 kV shielded, solid dielectric, power cables. Each kit contains all the materials (except connectors and optional ground strap) required to construct three (3) single

conductor splices on Tape Shield, Wire Shield or UniShield® cables. Note: The kit can also be used to splice a shielded to a nonshielded 5-8 kV cable. Meets requirements of IEEE 404. Each kit makes three splices.



3M Splice Kit 5550 Series Selection

Product Series	UPC (054007-)	Conductor Size		Maximum Connector Length		Typical Splice Length	Optional Ground Strap Kit No.	Cable Case Qty.
		Copper	Aluminum	Copper	Aluminum			
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable See above for cable type illustrations.								
5551	09089	6-4/0 AWG (14-100 mm²)	6-3/0 AWG (14-80 mm²)	3.3" (84 mm)	2.7" (69 mm)	19" (483 mm)	GS-1	1
5552	09090	4/0 AWG-500 kcmil (120-250 mm²)	4/0 AWG-400 kcmil (120-200 mm²)	4.3" (109 mm)	3.7" (94 mm)	21" (533 mm)	GS-2	1
5553	09091	500-1000 kcmil (300-500 mm²)	500-1000 kcmil (300-500 mm²)	6.3" (160 mm)	5.3" (135 mm)	23" (584 mm)	GS-3	1

5 kV Inline Splice Kits, 1/C or Multiple Conductor Non-Shielded Cable

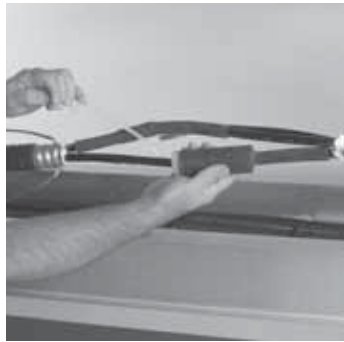
Ordering Information for 9CK-300 Series

Product Number	UPC (054007-)	Description	Jacket Diam. Range	Inner Unit Pack
9CK-300	64860	Conductor Size Single #2-500 MCM Multiple #6-1/0 Mold length 15.75" (400 mm)	1-1.95" (25-49.5 mm)	1 kit/cs.
9CK-302	64861	Conductor Size Single #3-1250 MCM Multiple #8-4/0 Mold length 20.5" (520 mm)	0.94-2.25" (24-57 mm)	1 kit/cs.

For the 9CK-300 Series, these products are only available in Canada.

3/C, 600V and 1 kV, Non-Shielded Cold Shrink

3M™ Splices for Three-Conductor Armor Power Cable (Teck 90) 5730 Series



3M™ Low Voltage Cold Shrink Splicing Kits are applicable for indoor and outdoor installations, including direct burial, aerial and submersible applications. The 5730 series accommodates a full range of cable

sizes from 14 AWG-750 kcmil. The overall jacket diameter ranges from 0.62 to 4.00" (16 to 102 mm).

3M™ Low Voltage Inline Splice Kits 5730-5731

For use with 3/C or 4/C Armor Power Cable CSA Certified for 600V or less.* 

* NRTL=CSA approved for use in the United States

3M™ Low Voltage Inline Splice Kits 5732-5735

For use with 3/C Armor Power Cable (Teck 90) up to 1000V.

Note: Armorcast™ 4560 (armor jacketing) is not included with these splices and must be ordered separately.

3M Low Voltage Inline Splice Kits 5730-5731 Series Selection

Kit Number	Cable Sizes (AWG)	Overall Jacket Diameter	UPC (054007-)	Amount of Armorcast Required*
5730	14-10	0.62-1.0" (16-25 mm)	43171	1 roll
5731	8-4	0.95-1.4" (24-36 mm)	43172	1 roll

Note: Connectors are not included in the kit. Use only CSA Certified compression connectors. Vinyl or nylon butt connectors are preferable.

*Amount of Armorcast needed based on two half lapped layers.

Order the 15 ft. rolls.

3M Low Voltage Inline Splice Kits 5732-5735 Series Selection

Kit Number	Cable Sizes (AWG or kcmil)	Overall Jacket Diameter	UPC (054007-)	Amount of Armorcast Required*
5732	2-1/0	0.95-2.4" (24-61 mm)	43173	1 roll
5733	2/0-250	1.15-3.3" (29-84 mm)	43174	2 rolls
5734	250-500	1.55-4.0" (39-102 mm)	43175	2 rolls
5735	500-750	1.55-4.0" (39-102 mm)	43176	3 rolls

Note: Connectors are not included in the kit. Use only CSA Certified compression connectors.

*Amount of Armorcast needed based on two half lapped layers.

Order the 15 ft. rolls.

3M™ Armorcast Structural Material 4560

The 3M Armorcast Structural Material 4560 creates maintenance free mechanical protection for power cable splices. Armorcast structural material is a flexible fiberglass knit fabric strip that has been saturated with black urethane resin syrup. It is rolled and packed dry in a sealed foil envelope.

3M Armorcast Structural Material 4560 Selection

Product Number	UPC (051138-)	Roll Size	Case Qty.
4560-5	57719	5'	5 rolls
4560-10	57717	10'	5 rolls
4560-15	57718	15'	5 rolls

1/C & 3/C, 5/8 kV, Non-Shielded Armored or Non-Armored Armorcast/Cold Shrink Splices

3M™ Three-Conductor Inline Splicing Kits TS Series

3M Three-Conductor Inline Splicing Kits TS Series are designed for nonshielded armored and non-armored solid dielectric cables rated up to 8 kV. Connectors are not included, order separately. See page 147 in the “Lugs and Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one splice.

& Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one splice.



One-Conductor Unshielded, Stranded



Three-Conductor Unshielded, Stranded

3M™ Splice Kits TS-5/8 kV Series Selection (Stranded Conductor) Unshielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-5kVU-1C-8-4	045276	TS-5kVU-3C-8-4	045818	8-4
TS-5kVU-1C-3-300	045269	TS-5kVU-3C-3-300	045795	3-300
TS-5kVU-	045283	TS-5kVU-3C-350-1000*	045801	350-1000

*Cu only for 1000 Mem.

These products are only available in Canada.

1/C & 3/C, 5/8 kV, Shielded Armored or Non-Armored Armorcast/Cold Shrink Splices

3M™ Armored/Aarmorcast/Non-Armored Cable Splices TS Series

The 3M Three-Conductor Inline Splicing Kits TS-Series are designed for splicing shielded armored and non-armored cables, 5 kV and 8 kV. Connectors are not included, order separately. See page 147 in the “Lugs and Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one splice.



One-Conductor, Shielded, Stranded



Three-Conductor, Shielded, Stranded

3M™ Splice Kits TS-5/8 kV Series Selection (Stranded Conductor) Shielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-5kV-1C-6-3/0	045320	—	—	6-2
TS-5kV-1C-6-3/0	045320	TS-5kV-3C-2-3/0	04602	2-310
TS-5kV-1C-4/0-400	045375	TS-5kV-3C-4/0-500	04578	4/0-400
TS-5kV-1C-500-1000	045382	TS-5kV-3C-4/0-500*	—	500
TS-5kV-1C-500-1000	045382	TS-5kV-3C-600-750†	04612	750
TS-5kV-1C-500-1000	045382	—	—	2000

*Cu only.

† Resin Rejacketing.

These products are only available in Canada.

1/C & 3/C, 15 kV and 25/28 kV Shielded Armored & Non-Armored Armorcast/Cold Shrink Splices

Designed for splicing shielded (Tape or Wire Shielded and UniShield®) armored or non-armored cables 15 kV and 25/28 kV. The completed splices are designed for use in cable tray, as well as weather-exposed and direct burial locations. The TS Series splices use Armorcast™ and Cold Shrink technology. Connectors not included, order separately. See page 147 for ordering connectors. Each kit makes one splice. **Splices meet the requirements of IEEE 404.**



One-Conductor, Shielded, Stranded



Three-Conductor, Shielded, Stranded

3M™ Cold Shrink Splice TS-15 kV Series Selection (Stranded Conductor) Shielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-15kV-1C-2-4/0	049380	TS-15kV-3C-2-4/0	045771	2-4/0
TS-15kV-1C-4/0-500	045443	TS-15kV-3C-4/0-500	045481	4/0-500
TS-15kV-1C-500-1000	045337	TS-15kV-3C-350-750	045467	500-750
TS-15kV-1C-500-1000	045337	—	—	1000

These products are only available in Canada.

3M™ Cold Shrink Splice TS-25/28 kV Series Selection (Stranded Conductor) Shielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-25kV-1C-1-250	046044	TS-25kV-3C-1-250	046044	1-250
TS-25kV-1C-250-750	046235	TS-25kV-3C-250-750	045450	250-750
TS-25kV-1C-500-1000	045498	TS-25kV-3C-500-1000	045498	500-1000

These products are only available in Canada.

1/C, 15 kV and 25/28 kV JCN/CN, and Power Shielded Repair Splices

3M™ Cold Shrink QS-III Cable Repair Splices

The 3M Cold Shrink Quick Splice III Cable Repair Splice is a 15 kV and 25/28 kV class inline splice designed to serve as a cable repair for distribution/feeder class power cables. It is designed to replace up to 10 inches (254 mm) of damaged cable, thus eliminating the need to splice in a new section of cable with two separate splices.

The 3M Cold Shrink splice body is a one-piece molded design made of specially formulated silicone rubber, while the cold shrink jacketing is made from EPDM rubber for physical protection. Each splice manufactured is factory tested to ensure reliability.



The splice can be used with 3M copper (Cu) or aluminum (Al/Cu) inline compression (crimp type) connectors, and can be used for size transitions within the listed kit size range. They are designed to exceed minimum industry test standards, and have a BIL rating of 200 kV (equal to a 35 kV voltage class). 5457AR and 5457ARS QS-III splices meet or exceed the 25/28 kV Voltage Class rating requirements of ANSI/IEEE Std. 404-1993.

3M Cold Shrink QS-III Cable Repair Splices

Kit Number	Cable Type	Cable Insulation O.D. Range	Conductor Size Range 15 kV	Conductor Size Range 25/28 kV
5457ARS-WG 5457ARS	Concentric Jacketed Concentric	0.972-1.48" (25-38 mm)	250-500	3/0-350
5457AR-WG 5457AR	Concentric Jacketed Concentric	1.05-1.68" (27-43 mm)	500-1000	350-750
5525ARS	Tape Shield Wire Shield LC Shield	0.972-1.48" (25-38 mm)	250-500	3/0-350
5525AR	Tape Shield Wire Shield LC Shield	1.05-1.68" (27-43 mm)	500-1000	350-750

Note: 3M Repair Connectors are required with these splice kits. 3M Repair Connectors are 15" in length. They are designed for standard, compact, and compressed conductors. Connectors can be designed specially for any application. Special order connectors require 6-8 week lead times. Transition connectors are also available. Please consult your local 3M sales representative.

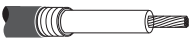


These QS-III repair splices are only available in Canada.

600 V and 1 kV, Non-Shielded Splices

3M™ Splices for 1C, 3C and 4C, Armored or Non-Armored Cable TS Series

3M™ Low Voltage Tape Splicing Kits are applicable for indoor and outdoor installations, including direct burial, aerial and submersible applications. The TS series accommodates a full range of cable sizes.

Ordering Information Splice Kit 1 kV

Size AWG kcmil	1C Splice Kit	3C Splice Kit	4C Splice Kit
			
14	TS	TS	TS
12	TS	TS	TS
10	TS	TS	TS
8	TS	TS	TS
6	TS	TS	TS
4	TS	TS	TS
3	TS	TS	TS
2	TS	TS	TS
1	TS	TS	TS
1/0	TS	TS	TS
2/0	TS	TS	TS
3/0	TS	TS	TS
4/0	TS	TS	TS
250	TS	TS1	TS1
300	TS	TS1	TS1
350	TS	TS1	TS1
400	TS	TS1	TS1
500	TS	TS1	TS1
600	TS	TS1	TS1
750	TS	TS1	TS1
1000	TS	TS1	TS1

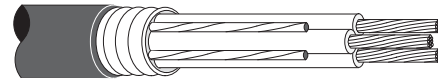
These are only available in Canada.

3/C, 5 kV, Non-Shielded Armored or Non-Armored Resin/Cold Shrink Splices

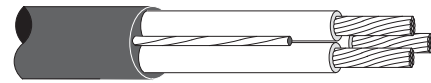
3M™ Three-Conductor Inline Splicing Kit 5750 Series



3M Three-Conductor Inline Splicing Kit 5750 Series are designed for non-shielded armored and non-armored solid dielectric cables rated up to 5 kV.



Three-Conductor Armored, Nonshielded Cable



Three-Conductor Non-Armored, Nonshielded Cable

Connectors are not included, order separately. See page 147 in the “Lugs & Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one 3/C splice.

3M™ Splices 5750 Series Selection

Product Series	UPC (054007-)	Conductor Size (Copper or Aluminum)		Typical Splice Length	Case Qty.
		1 kV or Less	5 kV		
5751	08310	6-1 AWG (14-38 mm ²)	6-4 AWG (14-16 mm ²)	19" (483 mm)	1
5752	08311	1/0-4/0 AWG (60-100 mm ²)	2-4/0 AWG (35-100 mm ²)	28" (711 mm)	1
5753	08312	250-750 AWG (150-325 mm ²)	250-500 kcmil aluminum (150-250 mm ²) 250-750 kcmil copper only (150-325 mm ²)	42" (1067 mm)	1

3/C, 5/8 kV, Shielded to Shielded or Non-Shielded, Armored or Non-Armored Armorcast/Cold Shrink Splice

3M Splice Kit 5551-3C-AC is for splicing 3/C, 5 kV and 8 kV shielded, armored and non-armored cables. Connectors are not included. Kits include Armorcast structural material to reconstitute the cable's armor. **Meets the requirements of IEEE 404.** Each kit makes one 3/C splice.



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

3M™ Splice Kit 5551-3C-AC Series Selection

Product Series	UPC (051128-)	Conductor Size (Copper or Aluminum)	Maximum Conductor Length (Copper or Aluminum)	Typical Splice Length	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, Unshielded* Cable Copper Aluminum					
5551-3C-AC	54317	6-3/0 AWG (14-80 mm ²)	2.7" (69 mm)	34" (864 mm)	1

3/C, 5/8 kV, Shielded Armored or Non-Armored Resin/Cold Shrink Splices

3M™ Three-Conductor Inline Splicing Kit 5760 Series



3M Three-Conductor Inline Splicing Kit 5760 Series are designed for splicing shielded armored and non-armored cables,

5 kV and 8 kV. Connectors are not included, order separately. See page 147 in the "Lugs & Connectors" section for ordering information. **Meets the requirements of IEEE 404.** Each kit makes one 3/C splice.

3M™ Splices 5760 Series Selection

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size (Copper or Aluminum)	Maximum Connector O.D.	Maximum Connector Length	Typical Splice Length	Case Qty.
5761	12260	0.65-1.00" (17-25 mm)	2/0 AWG-350 kcmil (120-250 mm ²)	0.90" (23 mm)	2.75" (70 mm)	29" (737 mm)	1
5762	12262	0.93-1.94" (24-49 mm)	500-1000 kcmil (300-500 mm ²)	1.40" (36 mm)	5.00" (127 mm)	44" (1118 mm)	1

3/C, 5/8 kV, Shielded to Shielded Armored or Non-Armored Cold Shrink Splice

The 3M™ Cold Shrink QS-III Splicing Series 57XX-MT are the three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV class. Kits include Armorcast Structural material to reconstitute the cable armor. Meets the requirements of IEEE 404. Each kit makes one 3/C splice. Use the MT-C or MT-E Trifurcating Accessory Kits when splicing 3/C to 3-1/C.

3M™ Cold Shrink QS-III Three-Conductor Cable Splices 5775A-MT, 5776A-MT and 5777A-MT Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
5/8 kV					
5775A-MT	53493	0.64-1.01" (16,3-25,7 mm)	3/0-250 (95-125 mm ²)	None	1
5776A-MT	44112*	0.84-1.38" (21,3-35,1 mm)	350-500 (185-240 mm ²)	None	1
5777A-MT	44289*	1.04-1.70" (26,4-43,2 mm)	750-1000 (325-500 mm ²)	None	1

*UPC prefix 054007-

3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

Product Series	UPC (051128-)	Conductor Size	Single Connector Jacket O.D. Range	Case Qty.
MT-C	55208	Single conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single conductor	1.13-1.80" (28,7-45,7 mm)	1

Selection Table

3M™ Splice 57XXA-MT	5/8 kV (90/140 mil)	Appropriate MT Transition Kit
*Typical Conductor Size Range – AWG/kcmil		
5775A-MT	3/0-250	MT-C
5776A-MT	350	MT-C
5776A-MT	500	MT-E
5777A-MT	—	MT-E
MT-C Kit the Single Conductor Cable Jacket O.D. Range is 0.62"-1.13" (15, 7-28,7 mm)		
MT-E Kit the Single Conductor Cable Jacket O.D. Range is 1.13"-1.80" (28, 7-5,7 mm)		
*Typical Conductor Size Range is based on typical cable jacket outside diameter (O.D.). Ranges shown at the bottom of the table are the final determining factor as to whether this transition kit will work with the cable being used.		

15 kV Splices

1/C JCN/CN Molded Rubber Splices

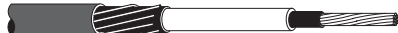
3M™ Molded Rubber Splice QS and QS-II kits are inline splices made from specially formulated, peroxide-cured, EPDM rubbers to ensure a stable seal and a splice that will last the life of the cable. The continuous current rating of each splice is equal to the current rating of the cable it is sized to. Each molded rubber splice is tested at the factory on power cable to ensure long-term reliability. Each molded rubber splice meets the requirements of IEEE 404.



3M™ Inline QS Splice Kits 5400 Series



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable



QS Kits 5400 Series are inline splices designed for use on 15 kV CN or JCN cable.

To use the splice kit, select the appropriate size CI Series compression connector. The connectors can be used on stranded, aluminum or copper conductors sized from 2/0 to 750 kcmil (70 to 300 mm²).

Meets the requirements of IEEE Standard 404. See page 345 for 3M CI Connectors. Each kit makes one splice.

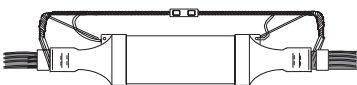
3M™ QS-II Splice Kits 5411, 5411A and 5412



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable



QS-II kits 5411, 5411A and 5412 are one-piece inline splices designed for use on 15 kV rated CN and JCN cable.

Meets the requirements of IEEE Standard 404. Splice can be ordered with the special CI-Series connector packed in the kit or the kit and connector can be ordered as separate items. See pages 345 and 346 for 3M connectors.

3M™ QS-II Cable Repair Splice Kit 5411R and 5412R



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

QS-II Cable Repair Kit 5411R is a specially elongated molded rubber



(CN) Cable

(JCN) Cable

Accessory Splice Jacket

splice designed to repair damaged cable. It can be used on 15 kV copper or aluminum, CN or JCN cables. It is designed to replace up to 6" (152 mm) of damaged cable, thus eliminating the need to splice in a new section of cable with two separate splices.

Meets the requirements of IEEE Standard 404. The 5411R/5412R can be ordered with the special CIR-Series connector packed in the kit or the kit and connector can be ordered as separate items. See page 345 for 3M connectors. Each kit makes one splice repair.

3M™ Rubber Splices 5400, 5411, 5411A and 5412 Series Selection

Product Series	UPC (054007-)	Splice Jacket † Needed for JCN Cables	Conductor Size Cu or Al		Insulation O.D. Range	Primary Specified Connector	Case Qty.
			Stranded	Solid			
5403	11818	SJ-2A or HSJ-2A	2/0-4/0 AWG (70-100 mm²)	—	0.795-0.940" (20-24 mm)	CI Series	1
5404	11826	SJ-2A or HSJ-2A	2/0-4/0 AWG (70-100 mm²)	—	0.920-1.080" (23-27 mm)	CI Series	1
5405	11834	SJ-2A or HSJ-2A	250-350 kcmil (125-180 mm²)	—	0.920-1.080" (23-27 mm)	CI Series	1
5406	11842	SJ-2A or HSJ-2A	250 kcmil (220 mil) 350 kcmil	—	1.060-1.210" (27-31 mm)	CI Series	1
5406-CI-350*	41907	SJ-2A or HSJ-2A	350 kcmil	—	1.060-1.210" (27-31 mm)	CI-350	1
5407	25602	SJ-3A or HSJ-3A	500 kcmil	—	1.120-1.320" (28-34 mm)	CI Series	1
5408	25610	SJ-3A or HSJ-3A	750 kcmil	—	1.320-1.520" (34-39 mm)	CI Series	1
5408-CI-750*	02314	SJ-3A or HSJ-3A	750 kcmil	—	1.320-1.520" (34-39 mm)	CI-750	1
5409	11859	SJ-3A or HSJ-3A	750 kcmil	—	1.490-1.660" (38-40 mm)	CI Series	1
5409-CI-750*	30209	SJ-3A or HSJ-3A	750 kcmil	—	1.490-1.660" (38-40 mm)	CI-750	1
5411	11852	SJ-1A or HSJ-1A	4-2/0 AWG 2/0 (175 mil)	2-1/0 AWG	0.637-0.90" (16-23 mm)	CI Series, CI-T Series, or 20006	1
5411-CI-1/0*	11855	SJ-1A or HSJ-1A	1/0 AWG	—	0.637-0.90" (16-23 mm)	CI-1/0	1
5411-CI-2*	08005	SJ-1A or HSJ-1A	2 AWG	1 AWG	0.637-0.90" (16-23 mm)	CI-2	1
5411-CI-21*	11853	SJ-1A or HSJ-1A	2,1 AWG	1,1/0 AWG	0.637-0.90" (16-23 mm)	CI-21	1
5411-CI-22*	11854	SJ-1A or HSJ-1A	4 AWG (220 mil)	2 AWG	0.637-0.90" (16-23 mm)	CI-22	1
5411-20006*	11861	SJ-1A or HSJ-1A	2/0 AWG (175 mil)	—	0.637-0.90" (16-23 mm)	20006	1
5411A	09937	SJ-1A or HSJ-1A	1 AWG (220 mil) 1/0 AWG (220 mil) 2/0 AWG (175 mil)	1/0 AWG (220 mil)	0.775-0.90" (19,7-23 mm)	CI Series or 20006	1
5411A-CI-1*	09938	SJ-1A or HSJ-1A	1 AWG (220 mil)	1/0 AWG (220 mil)	0.775-0.90" (19,7-23 mm)	CI-1	1
5411A-CI-1/0*	09939	SJ-1A or HSJ-1A	1/0 AWG (220 mil)	—	0.775-0.90" (19,7-23 mm)	CI-1/0	1
5411A-20006*	09940	SJ-1A or HSJ-1A	2/0 AWG (175 mil)	—	0.775-0.90" (19,7-23 mm)	20006	1
5412	11862	SJ-1A or HSJ-1A	2/0 AWG (220 mil) 3/0-4/0 AWG 250 kcmil (175 mil)	—	0.840-1.050" (21-27 mm)	CI Series	1

† To order splice jackets see page 329.

*Kit includes the connector specified.

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

Important: Use the primary insulation O.D. range as the final ordering criteria. The above cable sizes include 175 and 220 mil insulations.

Note: Based on cable conductor size, the splices are designed for use on either 200 Amp distribution circuits or 600 Amp feeder circuits.

3M™ Rubber Splices 5400, 5411, 5411A and 5412 Series Selection

Product Series	UPC (054007-)	Splice Jacket [†] Needed for JCN Cables	Conductor Size Cu or Al		Insulation O.D. Range	Primary Specified Connector	Case Qty.
			Stranded	Solid			
5412-CI-2/0*	11865	SJ-1A or HSJ-1A	2/0 AWG (220 mil)	—	0.840-1.050" (21-27 mm)	CI-2/0	1
5412-CI-3/0*	11863	SJ-1A or HSJ-1A	3/0 AWG	—	0.840-1.050" (21-27 mm)	CI-3/0	1
5412-CI-4/0*	11864	SJ-1A or HSJ-1A	4/0 AWG	—	0.840-1.050" (21-27 mm)	CI-4/0	1

† To order splice jackets see page 329.

*Kit includes the connector specified.

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

Important: Use the primary insulation O.D. range as the final ordering criteria. The above cable sizes include 175 and 220 mil insulations.

Note: Based on cable conductor size, the splices are designed for use on either 200 Amp distribution circuits or 600 Amp feeder circuits.

3M™ Cable Repair Splice 5411R and 5412R Selection

Product Series	UPC (054007-)	Splice Jacket [†] Needed for JCN Cables	Conductor Size Cu or Al		Insulation O.D. Range	Specified Connector	Case Qty.
			Stranded	Solid			
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable							
5411R	09352	SJ-1A + 8428-12** or HSJ-1A	4 AWG (220 mil only) 2-1/0 AWG	2-1/0 AWG	0.637-0.900" (16-31 mm)	CIR Series	1
5411R-CIR-2	55097 ^{††}	SJ-2A + 8428-12** or HSJ-1A	2 AWG	—	0.637-0.900" (16-31 mm)	CIR-2	1
5411R-CIR-1/0*	09355	SJ-1A + 8428-12** or HSJ-1A	1/0 AWG	—	0.637-0.900" (16-31 mm)	CIR-1/0	1
5411R-CIR-21*	09354	SJ-1A + 8428-12** or HSJ-1A	2-1 AWG	1-1/0 AWG	0.637-0.900" (16-31 mm)	CIR-21	1
5411R-CIR-22*	09353	SJ-1A + 8428-12** or HSJ-1A	4 AWG (220 mil only)	2 AWG	0.637-0.900" (16-31 mm)	CIR-22	1
5412R-CIR-3/0*	43501	SJ-2A or HSJ-2A	3/0 AWG	—	0.870-1.055" (22-27 mm)	CIR-3/0	1
5412R-CIR-4/0*	50101	SJ-2A or HSJ-2A	4/0 AWG	—	0.870-1.055" (22-27 mm)	CIR-4/0	1

* Kit includes the connector specified

** 8428-12 is used with the SJ kits only.

† To order Splice Jackets see page 384.

†† UPC prefix 051128-

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

PRODUCT REFERRAL GENERATOR

Splice Jacketing

– SJ Series..... pg. 384

– HSJ Series..... pg. 384

Specifications and Ordering Information for 3M™ CIR Series Repair Connectors for 3M™ Rubber Splices 5411R and 5412R Series

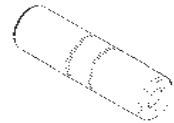
Product Number	UPC Connector (054007-)	Conductor Size Cu or Al		Connector O.D.	Splice Body	Case Qty.
		Stranded	Solid			
CIR-2	11966	2 AWG	—	0.64" (16 mm)	5411R	10
CIR-21	09357	2-1 AWG	1-1/0 AWG	0.64" (16 mm)	5411R	10
CIR-22	09356	4 AWG (220 mil only)	2 AWG	0.64" (16 mm)	5411R	10
CIR-1/0	09358	1/0 AWG	—	0.64" (16 mm)	5411R	10
CIR-2/0	41964	2/0 AWG (220 mil only)	—	0.91" (23 mm)	5412R	10
CIR-3/0	41965	3/0 AWG	—	0.91" (23 mm)	5412R	10
CIR-4/0	50228	4/0 AWG	—	0.91" (23 mm)	5412R	10

Specifications and Ordering Information for 3M™ Connectors CI Series for 3M™ Rubber Splices 5400 and 5500 Series



Product Number	UPC (054007-)	Conductor Size Cu or Al	Connector O.D.	Case Qty.
CI-2/0	11875	2/0 AWG	0.910" (23 mm)	10
CI-3/0	11883	3/0 AWG	0.910" (23 mm)	10
CI-4/0	11891	4/0 AWG	0.910" (23 mm)	10
CI-250	11909	250 kcmil	1.125" (29 mm)	10
CI-350	11925	350 kcmil	1.125" (29 mm)	10
CI-450	11933	500 kcmil compact	1.312" (33 mm)	10
CI-500	25644	500 kcmil	1.312" (33 mm)	10
CI-650	11941	750 kcmil compact	1.590" (40 mm)	10
CI-750	25651	750 kcmil	1.590" (40 mm)	10

Specifications and Ordering Information for Connectors for 3M™ Rubber Splices 5411, 5412 and 5500 Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
20006	13285	2/0 AWG	—	0.687" (17 mm)	10
20009	13319	250 kcmil	—	0.906" (23 mm)	3
CI-1/0	11867	1/0 AWG	—	0.640" (16 mm)	10
CI-2	11651	2 AWG	1 AWG	0.640" (16 mm)	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	10
CI-21	11856	2, 1 AWG	1, 1/0 AWG	0.640" (16 mm)	10
CI-22	25636	4 AWG	2 AWG	0.640" (16 mm)	10
CI-3/0	11883	3/0 AWG	—	0.910" (23 mm)	10
CI-4/0	11891	4/0 AWG	—	0.910" (23 mm)	10

Specifications and Ordering Information for 3M™ CI-T Series Transition Connectors for 3M™ Rubber Splices 5411 and 5500 Series

Product Number	UPC (054007-)	Conductor Size Cu or Al (AWG) From Cable A to Cable B				Connector O.D.	Case Qty.
		Str.	Solid	Str.	Solid		
CI-T-1	11958	4	2	1	1/0	0.640" (16 mm)	10
CI-T-2	11966	2	1	1	1/0	0.640" (16 mm)	10
CI-T-3	11974	4	2	1/0	—	0.640" (16 mm)	10
CI-T-4	11982	2	1	1/0	—	0.640" (16 mm)	10
CI-T-5	11990	2	1	4	2	0.640" (16 mm)	10
CI-T-9	44533	1	1/0	1/0	—	0.640" (16 mm)	10

Specifications and Ordering Information for Connectors for 3M™ Rubber Splices 5411A Series

Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-1/0	11867	1/0 AWG	—	0.640" (16 mm)	10
CI-1	25628	2, 1 AWG	1, 1/0 AWG	0.640" (16 mm)	10
20006	13285	2/0 AWG	—	0.687" (17 mm)	10

Lab tested.
Field proven.



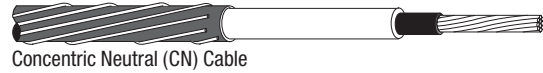
1/C, 15 kV, JCN/CN Cold Shrink Splices

3M™ QS-III Cold Shrink Inline Cable Splices 5415A, 5416A, 5417A and 5418A

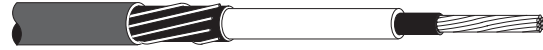


The QS-III Cold Shrink Cable Splices 5415A, 5416A, 5417A and 5418A are inline splices for joining

Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) cables. It is a cold shrink design sized to fit UL Type MV-90 cables with copper or aluminum conductor sizes ranging from 2 AWG to 1000 kcmil. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit, or the kit and connectors can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets the requirements of IEEE 404.**

1/C, 15 kV, JCN and Power Shielded Cold Shrink Branch Splice

3M™ Cold Shrink Branch Cable Splice QS2001B

The 3M Cold Shrink Cable Splice QS2001B is designed to connect extruded dielectric power cables rated to 15 kV. The base kit handles main and run cable ranges from 350 kcmil to 500 kcmil (an adapter kit can be used for cable ranges 2 AWG to 250 kcmil). The kit is supplied with an innovative shear-bolt connector eliminating the need for special tooling. The adapter kit is ordered separately allowing smaller cross-sectional coverage. **Meets the requirements of IEEE 404.** Each kit will make one splice.



PRODUCT REFERRAL GENERATOR

Connecting pg. 147

3M COLD SHRINK INLINE CABLE SPLICES QS-III AND QS2001B

FEATURES	BENEFITS
Silicone body provides excellent electrical performance and superior low temperature handling	No heat, flames or special installation tools required. Fast recovery in cold temperatures
One piece splice body design	Minimal training required
Wide cable range	Allow transitioning of different size cables
Field proven technology	Easy, straightforward installation
Splice bodies are 100% factory tested	Field reliability

3M™ Cold Shrink QS-III Inline Cable Splices 5415A, 5416A, 5417A and 5418A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable					
15 kV CN and JCN cables					
5415A	53470	0.64-1.01" (16,3-25,7 mm)	2-4/0 AWG (35-95 mm ²)	None	1
5415A-2-AL	53471	0.64-1.01" (16,3-25,7 mm)	2 AWG	20003	1
5415A-2-CU	53472	0.64-1.01" (16,3-25,7 mm)	2 AWG	10003	1
5415A-1-AL	53473	0.64-1.01" (16,3-25,7 mm)	1 AWG	20004	1
5415A-1-CU	53474	0.64-1.01" (16,3-25,7 mm)	1 AWG	10004	1
5415A-1/0-AL	53475	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	20005	1
5415A-1/0-CU	53476	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	10005	1
5415A-2/0-AL	53477	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	20006	1
5415A-2/0-CU	53478	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	10006	1
5415A-3/0-AL	53747	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	20007	1
5415A-3/0-CU	53748	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	10007	1
5415A-4/0-AL	53749	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	20008	1
5415A-4/0-CU	53750	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	10008	1
5416A	44092**	0.84-1.38" (21,3-35,1 mm)	4/0 AWG-350 kcmil (95-185 mm ²)	None	1
5416A-4/0-AL	44093**	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	20008	1
5416A-4/0-CU	44094**	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	10008	1
5416A-250-AL	44096**	0.84-1.38" (21,3-35,1 mm)	250 kcmil	20009	1
5416A-250-CU	44097**	0.84-1.38" (21,3-35,1 mm)	250 kcmil	10009	1
5416A-350-AL	44098**	0.84-1.38" (21,3-35,1 mm)	350 kcmil	20011	1
5416A-350-CU	44099**	0.84-1.38" (21,3-35,1 mm)	350 kcmil	10011	1
5417A	42124**	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm ²)	None	1
5417A-350-AL	42125**	1.04-1.70" (26,4-43,2 mm)	350 kcmil	20011	1
5417A-350-CU	44234**	1.04-1.70" (26,4-43,2 mm)	350 kcmil	10011	1
5417A-500-AL	42126**	1.04-1.70" (26,4-43,2 mm)	500 kcmil	20014	1
5417A-500-CU	44235**	1.04-1.70" (26,4-43,2 mm)	500 kcmil	10014	1
5417A-750-AL	04587**	1.04-1.70" (26,4-43,2 mm)	750 kcmil	20019	1
5417A-750-CU	04588**	1.04-1.70" (26,4-43,2 mm)	750 kcmil	10019	1

3M™ Cold Shrink QS-III Inline Cable Splices 5415A, 5416A, 5417A and 5418A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
5417A-WG*	44090**	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm ²)	None	1
5418A	42128**	1.08-1.70" (27,4-43,2 mm)	500-1000 kcmil (240-500 mm ²)	None	1
5418A-500-AL	44403**	1.08-1.70" (27,4-43,2 mm)	500 kcmil	20014	1
5418A-500-CU	44404**	1.08-1.70" (27,4-43,2 mm)	500 kcmil	10014	1
5418A-750-AL	42129**	1.08-1.70" (27,4-43,2 mm)	750 kcmil	20019	1
5418A-750-CU	44236**	1.08-1.70" (27,4-43,2 mm)	750 kcmil	10019	1
5418A-1000-AL	42130**	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	20024	1
5418A-1000-CU	44237**	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	10024	1
5418A-WG*	44091**	1.08-1.70" (27,4-43,2 mm)	500-1000 kcmil (240-500 mm ²)	None	1

*5417A-WG and 5418A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.

**UPC prefix 054007-

1/C, 15 kV, Power Shielded Molded Rubber Splices

3M™ Molded Rubber Cable Splices 5500 Series

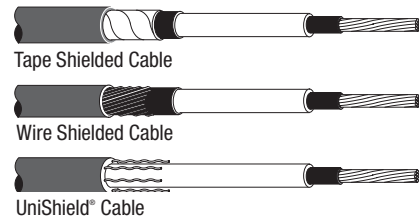
The QS-II Kits 5500 Series are inline splices designed for use on 15 kV copper or aluminum Tape Shielded, Wire Shielded and UniShield® cable from 2 AWG to 750 kcmil.

The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate.

Meets requirements of IEEE Standard 404. Each kit makes one splice.

A special 3M CI-Series Connector is necessary to complete the splice. Order the connector separately or as part of the kit.

See pages 359-360 for reference to CI connectors.



3M™ QS-II Rubber Splices 5500 Series Selection

Product Series	UPC (054007-)	Conductor Size Cu or Al		Primary Insulation O.D. Range	Specified Connector	Case Qty.
		Stranded	Solid			
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable See above for cable type illustrations.						
5501	12293	4-1/0 AWG 2/0 (175 mil)	2-1/0 AWG	0.637-0.900" (16-23 mm)	CI-Series	1
5501-CI-21*	09628	2-1 AWG	1-1/0 AWG	0.637-0.900" (16-23 mm)	CI-21	1
5501-CI-1/0*	09629	1/0 AWG	—	0.637-0.900" (16-23 mm)	CI-1/0	1
5501-20006*	09630	2/0 AWG (175 mil)	—	0.637-0.900" (16-23 mm)	20006	1

3M™ QS-II Rubber Splices 5500 Series Selection

Product Series	UPC (054007-)	Conductor Size Cu or Al		Primary Insulation O.D. Range	Specified Connector	Case Qty.
		Stranded	Solid			
5502	12294	2/0 AWG (220 mil) 3/0-4/0 AWG 250 kcmil (175 mil)	4/0 AWG	0.840-1.050" (21-27 mm)	CI Series or 20009	1
5502-CI-2/0*	09631	2/0 AWG (220 mil)	—	0.840-1.050" (21-27 mm)	CI-2/0	1
5502-CI-3/0*	09632	3/0 AWG	4/0 AWG	0.840-1.050" (21-27 mm)	CI-3/0	1
5502-CI-4/0*	09633	4/0 AWG	—	0.840-1.050" (21-27 mm)	CI-4/0	1
5502-20009*	09634	250 kcmil (175 mil)	—	0.840-1.050" (21-27 mm)	20009	1
5503	12295	250 kcmil (350 kcmil)	—	1.060-1.210" (27-31 mm)	CI Series	1
5503-CI-250*	09635	250 kcmil (220 mil)	—	1.060-1.210" (27-31 mm)	CI-250	1
5503-CI-350*	09636	350 kcmil	—	1.060-1.210" (27-31 mm)	CI-350	1
5504	12296	500 kcmil	—	1.120-1.320" (28-34 mm)	CI Series	1
5504-CI-500*	09637	500 kcmil	—	1.120-1.320" (28-34 mm)	CI-500	1
5505	12297	750 kcmil	—	1.320-1.520" (34-39 mm)	CI Series	1
5505-CI-750*	09638	750 kcmil	—	1.320-1.520" (34-39 mm)	CI-750	1

*Kit includes the connector specified.

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

1/C, 15 kV, Power Shielded Cold Shrink Splices

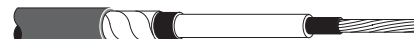
3M™ Cold Shrink QS-III Cable Splices 5513A, 5514A, 5515A and 5516A Series

The 3M Cold Shrink QS-III Splicing Kits 5513A, 5514A, 5515A and 5516A Series are inline splices for joining 15 kV Tape, Wire, LC and UniShield® power cables. It is a cold shrink design. Kits can be ordered with connectors

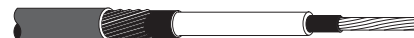


packed in the kit or the kit and connector can be ordered as separate items. See page 147 to order

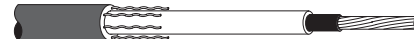
3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact 3M Representative for appropriate selection. **Meets requirements of IEEE 404.**



Tape Shielded Cable



Wire Shielded Cable



UniShield® Cable



Longitudinally Corrugated (LC) Shielded Cable

3M™ Cold Shrink QS-III Cable Splices 5513A, 5514A, 5515A and 5516A Series Selection

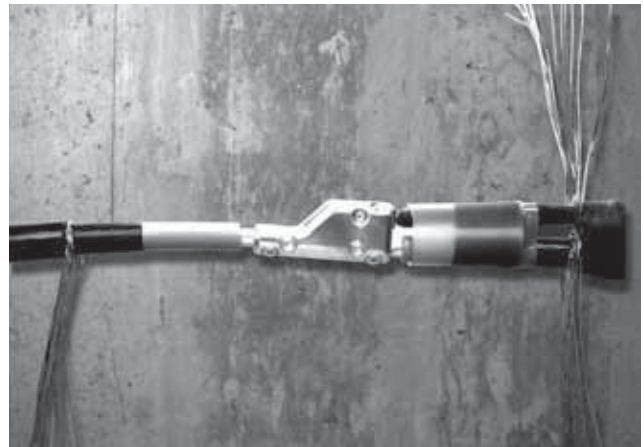
Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
15 kV LC, Wire, Tape and UniShield® cables					
5513A	53480	0.64-1.01" (16,3-25,7 mm)	2-4/0 AWG (35-95 mm ²)	None	1
5513A-2-AL	53481	0.64-1.01" (16,3-25,7 mm)	2 AWG	20003	1
5513A-2-CU	53482	0.64-1.01" (16,3-25,7 mm)	2 AWG	10003	1
5513A-1-AL	53483	0.64-1.01" (16,3-25,7 mm)	1 AWG	20004	1
5513A-1-CU	53484	0.64-1.01" (16,3-25,7 mm)	1 AWG	10004	1
5513A-1/0-AL	53485	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	20005	1
5513A-1/0-CU	53486	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	10005	1
5513A-2/0-AL	53487	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	20006	1
5513A-2/0-CU	53488	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	10006	1
5513A-3/0-AL	53489	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	20007	1
5513A-3/0-CU	53490	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	10007	1
5513A-4/0-AL	53491	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	20008	1
5513A-4/0-CU	53492	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	10008	1
5514A	44101*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG-500 kcmil (95-240 mm ²)	None	1
5514A-4/0-AL	44102*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	20008	1
5514A-4/0-CU	44103*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	10008	1
5514A-250-AL	44104*	0.84-1.38" (21,3-35,1 mm)	250 kcmil	20009	1
5514A-250-CU	44105*	0.84-1.38" (21,3-35,1 mm)	250 kcmil	10009	1
5514A-350-AL	44106*	0.84-1.38" (21,3-35,1 mm)	350 kcmil	20011	1
5514A-350-CU	44107*	0.84-1.38" (21,3-35,1 mm)	350 kcmil	10011	1
5514A-500-AL	44407*	0.84-1.38" (21,3-35,1 mm)	500 kcmil	20014	1
5514A-500-CU	44408*	0.84-1.38" (21,3-35,1 mm)	500 kcmil	10014	1
5515A	42134*	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm ²)	None	1
5515A-350-AL	42135*	1.04-1.70" (26,4-43,2 mm)	350 kcmil	20011	1
5515A-350-CU	42898*	1.04-1.70" (26,4-43,2 mm)	350 kcmil	10011	1
5515A-500-AL	42899*	1.04-1.70" (26,4-43,2 mm)	500 kcmil	20014	1
5515A-500-CU	42136*	1.04-1.70" (26,4-43,2 mm)	500 kcmil	10014	1
5515A-750-AL	42900*	1.04-1.70" (26,4-43,2 mm)	750 kcmil	20019	1
5515A-750-CU	42137*	1.04-1.70" (26,4-43,2 mm)	750 kcmil	10019	1
5516A	42139	1.08-1.70" (27,4-43,2 mm)	500-1000 kcmil (240-500 mm ²)	None	1
5516A-500-AL	44405	1.08-1.70" (27,4-43,2 mm)	500 kcmil	20014	1
5516A-500-CU	44406	1.08-1.70" (27,4-43,2 mm)	500 kcmil	10014	1
5516A-750-AL	43254	1.08-1.70" (27,4-43,2 mm)	750 kcmil	20019	1
5516A-750-CU	43255	1.08-1.70" (27,4-43,2 mm)	750 kcmil	10019	1
5516A-1000-AL	42901	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	20024	1
5516A-1000-CU	42106	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	10024	1

*UPC prefix 054007-

3M™ Branch Splice QS 2001B

The QS 2001B molded rubber splice kit is designed to connect extruded dielectric power cables rated 15 kV. The basic kits handle the main and branch cable range from 350-500 kcmil (for cable between 2-250 kcmil use the adapter).

These kits utilize the QS 2000 Cold Shrink technology and consist of a multi-layer silicone rubber splice and stress control body, each expanded on a removable, supporting polymeric core.



3M™ Branch Splice QS 2001B and 3M™ Branch Adapter QS 2000 BA Selection — 15kV

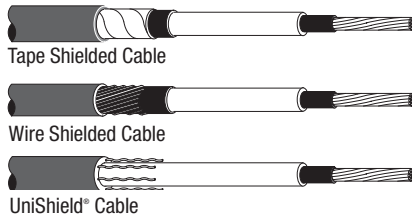
Kit Number	UPC (051128-)	Conductor Size Range	Primary Insulation O.D. Range	Case Qty.
QS 2001B	55254	350-500 kcmil (185-240 mm ²)	1.00-1.35" (25,4-34,3 mm)	1
QS 2000BA*	55255	2 AWG-250 kcmil (35-150 mm ²)	0.64-1.00" (16,3-25,4 mm)	1

*Order one adapter kit for each cable end (3 maximum/splice) below 350 kcmil (185 mm²) conductor size.

1/C, 5-15 kV, Power Shielded Tape Splices

Scotch® Tape Splice Kits 5700 Series

Scotch brand tape kits handle inline and tee splices on Tape Shielded, Wire Shielded or UniShield® cables with Cu or Al conductors. Kits are rated 5 through 15 kV, and each kit makes three splices. Use the selector chart to determine the proper kit needed. See “Lugs & Connectors” section, page 147, for ordering information. 3M does not offer tee connectors.



Scotch Tape Splice Kits 5700 Series Selection

Product Number	UPC (054007-)	Inline Splices						Tee Splices*						Case Qty.	
		5 and 8 kV		15 kV 100% 175mil		15 kV 133% 220 mil		5 and 8 kV		15 kV 100% 175 mil		15 kV 133% 220 mil			
		Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al		
5717	12030	4-250 (22-125)	4-4/0 (2-100)	4-2 (22-30)	—	4	—	—	—	—	—	—	—	—	1
5718	12048	300-500 (180-250)	250 (150)	1-4/0 (50-100)	4-2/0 (22-60)	2-1/0 (35-60)	—	4-2/0 (22-60)	4-1/0 (22-50)	—	—	—	—	—	1
5719	12055	550-1000 (300-500)	300-500 (180-250)	250-500 (180-250)	3/0-250 (95-125)	2/0-350 (70-180)	4-3/0 (22-80)	3/0-350 (95-180)	2/0-4/0 (70-100)	4-1 (22-38)	—	—	—	—	1
5720	12063	—	500-1000 (300-500)	550-1000 (300-500)	300-750 (180-325)	400-750 (240-325)	4/0-500 (120-250)	400-750 (240-325)	250-500 (125-250)	1/0-350 (60-180)	4-4/0 (22-100)	4-250 (22-125)	4-3/0 (22-80)	—	1

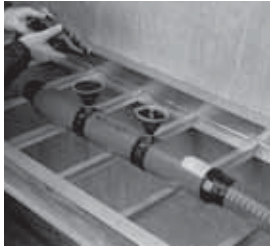
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable
See above for cable type illustrations.

*3M does not offer tee compression connectors.

Note: Larger-numbered kits may be used in place of smaller-numbered kits (with excess materials left over).

3/C, 15 kV, Shielded Armored or Non-Armored Resin/Cold Shrink Splices

3M™ Cold Shrink Cable Splices 5760 and 5700A-MT



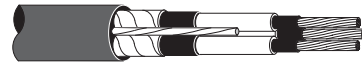
Designed for splicing shielded (Tape or Wire Shielded and UniShield®) armored or non-armored cables, 15 kV. The completed splices are designed for use in cable tray, as well as weather-exposed and direct

burial locations. The 5760 Series splices use resin and Cold Shrink technology, while the 5700A-MT is a cold shrink

only splice kit. Connectors not included, order separately. See page 147 for ordering connectors. Each kit makes one 3/C splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets the requirements of IEEE 404.**



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

3M Cold Shrink Splices 5760 Selection—15 kV

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size		Maximum Connector O.D.	Maximum Connector Length	Typical Splice Length	Case Qty.
			Copper	Aluminum				
5761	12260	0.65-1.00" (17-25 mm)	2-3/0 AWG (35-80 mm ²)	2-3/0 AWG (35-80 mm ²)	0.90" (23 mm)	2.75" (70 mm)	29" (737 mm)	1
5762	12262	0.93-1.94" (24-49 mm)	4/0 AWG-750 kcmil (120-325 mm ²)	4/0 AWG-500 kcmil (120-250 mm ²)	1.40" (36 mm)	5.00" (127 mm)	44" (1118 mm)	1

3/C, 15 kV Shielded to Shielded Armored or Non-Armored Cold Shrink Splices

The Cold Shrink QS-III Splicing Series 57XXA-MT are three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV, 15 kV, 25 kV and 35 kV class. Kits include Armorcast structural material to reconstitute the cable's armor. Use the MT-C or MT-E Trifurcating Accessory Kit to transition from 3/C cable to 3-1/C cables. **Meets the requirements of IEEE 404.** Each kit will make one splice.

3M™ Cold Shrink QS-III Three-Conductor Cable Splices 5775A-MT, 5776A-MT and 5777A-MT Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
15 kV 3-Core cables					
5775A-MT	53493	0.64-1.01" (16,3-25,7 mm)	2-4/0 AWG (35-95 mm ²)	None	1
5776A-MT	44112*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG-500 kcmil (95-240 mm ²)	None	1
5777A-MT	44289*	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm ²)	None	1

*UPC prefix 054007-

3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit

3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

Product Series	UPC (051128-)	Conductor Size	Single Conductor Jacket O.D. Range	Case Qty.
MT-C	55208	Single Conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single Conductor	1.13-1.80" (28,7-45,7 mm)	1

Selection Table

3M™ Splice 57XXA-MT	15 kV (175/220 mil)	Appropriate MT Transition Kit
Typical Conductor Size Range – AWG/kcmil		
5775A-MT	2-4/0	MT-C
5776A-MT	4/0-250	MT-C
5776A-MT	350-500	MT-E
MT-C Kit the Single Conductor Cable Jacket O.D. range is 0.62"-1.13" (15,7-28,7 mm).		
MT-E Kit the Single Conductor Cable Jacket O.D. range is 1.13"-1.80" (28,7-45,7 mm).		

25/28 kV Splices 1/C

JCN/CN Molded Rubber Splices

3M™ Cable Splices Kits QS 5420 and 5450 Series

3M Cable Splice Kits QS 5420 Series are inline splices designed for use on 25 kV CN or JCN cable. The 3M QS 5450 Series kits are one-piece inline splices designed for use on 25 kV CN and JCN Cable. The 3M QS-II Kit 5451A is a one-piece inline splice for use on 25/28 kV CN and JCN Cable.

The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate. Meets requirements of IEEE Standard 404 for cable joints. Jacketing kit is needed for JCN Cable. See pages 359-360 to order CI, CI-840, CI-A series connectors. See next page for 5450 series selection. Each kit makes one splice.



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

3M™ Rubber Splices 5420 Series Selection

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size* Cu or Al	Specified Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.					
5420	15819	0.795-0.940" (20-24 mm)	2-1/0 AWG (35-50 mm ²)	CI and CI-A Series	1
5420-CI-22A	15820	0.795-0.940" (20-24 mm)	2 AWG Solid	CI-22A	1
5421	15827	0.920-1.080" (23-27 mm)	1/0-3/0 AWG (60-80 mm ²)	CI and CI-A Series	1
5422	15835	1.060-1.210" (27-31 mm)	3/0-4/0 AWG (95-100 mm ²)	CI and CI-A Series	1
5423	15843	1.120-1.320" (28-34 mm)	250-350 kcmil (125-180 mm ²)	CI and CI-A Series	1
5423-CI-350	08384	1.120-1.320" (28-34 mm)	350 kcmil	CI-350	1
5424	15850	1.320-1.520" (34-39 mm)	500 kcmil	CI and CI-A Series	1
5425	09240	1.390-1.590" (35-40 mm)	750 kcmil Compact	CI and CI-A Series	1
5426	09239	1.550-1.710" (39-43 mm)	750 kcmil compressed and concentric	CI and CI-A Series	1
5426-CI-750	09177	1.550-1.710" (39-43 mm)	750 kcmil	CI-750	1

*Use the primary insulation O.D. range for final ordering criteria.

Note: If connector is desired packed with any of the kits shown above, add the connector number after the splice number (example: 5420-CI-22A). See page ? for connector ordering information. Jacketing kit is needed for JCN Cable. See page 384.

3M™ Cable Splice 5450 Series Selection

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size* Cu or Al	Specified Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable					
5451	09127	0.83-1.04" (21-26 mm)	2-2/0 AWG (60 mm ²)	CI, CI-840, and CI-A Series	1
5451-CI-1/0-840	09155	0.83-1.04" (21-26 mm)	1/0 AWG	CI-1/0-840	1
5451-CI-1/0A	09153	0.83-1.04" (21-26 mm)	1/0 AWG	CI-1/0A	1
5451-CI-1A	09935	0.83-1.04" (21-26 mm)	1 AWG	CI-1A	1
5451-CI-2A	09152	0.83-1.04" (21-26 mm)	2 AWG	CI-2A	1
5451-CI-21-840	09154	0.83-1.04" (21-26 mm)	2 or 1 AWG	CI-21-840	1
5452	09128	1.00-1.15" (25-29 mm)	3/0-4/0 AWG (95 mm ²)	CI, CI-840, and CI-A Series	1

*Use the primary insulation O.D. range for final ordering criteria.

Note: If connector is desired packed with any of the kits shown above, add the connector number after the splice number (example: 5450-CI-22A).

See page ? for connector ordering information. Jacketing kit is needed for JCN Cable. See page 384.

3M™ Cable Splice 5451A Series Selection—For Thick Wall (Insulation) Cable

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor		Cable Insulation Thickness	Specified Connector	Case Qty.
			Stranded	Solid			
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable							
5451A	49527	0.905-1.055" (23,0-26,8 mm)	2 AWG	1 AWG	295 mils	CI-2A or CI-21-840	1
			1 AWG	1/0 AWG	280 mils	CI-1A or CI-21-840	1
			1/0 AWG	—	295 mils	CI-1/0A or CI-1/0-840	1
			2/0 AWG	—	260 mils		
					280 mils		
5451A-CI-1A	49529	0.905-1.055" (23,0-26,8 mm)	1 AWG	1/0 AWG	280 mils 295 mils	CI-1A	1
5451A-CI-1/0A	49530	0.905-1.055" (23,0-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CI-1/0A	1
5451A-CI-21-840	49532	0.905-1.055" (23,0-26,8 mm)	2 or 1 AWG	1 or 1/0 AWG	295 mils	CI-21-840	1
5451A-CI-1/0-840	49528	0.905-1.055" (23,0-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CI-1/0-840	1
5451A-CI-2/0	49531	0.905-1.055" (23,0-26,8 mm)	2/0 AWG	—	260 mils 280 mils	CI-2/0	1

Jacketing kit is needed for JCN Cable. See page 384.

Note: CI-A series connectors are sized for 5/8 crimping die; CI-2/0 and CI-840 series connectors are sized for 840 crimping die.

Final determining factor is cable insulation diameter.

PRODUCT REFERRAL GENERATOR

Connecting

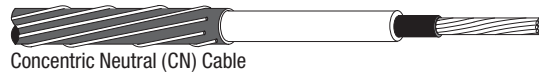
- CI Series Connectorspg. 359-360
- CI-840pg. 359-360
- CI-A Series Connectorspg. 359-360

For more information on Connecting see pg. 147

3M™ QS-II Cable Repair Splices Kit 5451R

QS-II Cable Repair Kit 5451R is a specially elongated molded rubber splice designed to repair damaged cable. It can be used on 25/28 kV copper or aluminum, CN or JCN cables. It is designed to replace up to 6" (152 mm) of damaged cable, eliminating the need to splice in a new section of cable with two separate splices.

Meets rating requirements of IEEE Standard 404.
Jacketing kit is needed for JCN Cable. See page 384.
Each kit makes one splice repair.



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable



3M QS-II Cable Repair Splice 5451R Selection

Product Series	UPC (054007-)	Cable Insulation O.D. Range	Conductor Stranded	Conductor Solid	Cable Insulation Thickness	3M Connector Product Number	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.							
5451R-CIR-21A	49479	0.870-1.055" (22,1-26,8 mm)	2 or 1 AWG	1 or 1/0 AWG	260 mils 280 mils 295 mils	CIR-21A	1
5451R-CIR-21-840	49478	0.870-1.055" (22,1-26,8 mm)	2 or 1 AWG	1 or 1/0 AWG	260 mils 280 mils 295 mils	CIR-21-840	1
5451R-CIR-1/0A	49476	0.870-1.055" (22,1-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CIR-1/0A	1
5451R-CIR-1/0-840	49477	0.870-1.055" (22,1-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CIR-1/0-840	1

Jacketing kit is needed for JCN Cable. See page 384.

Note: CIR-A series connectors are sized for 5/8 crimping die; CIR-840 series connectors are sized for 840 crimping die.

Final determining factor is cable insulation diameter.



Specifications and Ordering Information for 3M™ CI and CI-A Series Connectors for 5420 Series

Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-22A	15868	—	2 AWG	0.910" (23 mm)	10
CI-2A	00721	2 AWG	1 AWG	0.910" (23 mm)	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	10
CI-1/0A	14176	1/0 AWG	—	0.910" (23 mm)	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	10
CI-3/0	11883	3/0 AWG	—	0.910" (22 mm)	10
CI-4/0	11891	4/0 AWG	—	0.910" (22 mm)	10
CI-250	11909	250 kcmil	—	1.125" (29 mm)	10
CI-350	11925	350 kcmil	—	1.125" (29 mm)	10
CI-450	11933	500 kcmil compact	—	1.312" (33 mm)	10
CI-500	25644	500 kcmil	—	1.312" (33 mm)	10
CI-650	11941	750 kcmil compact	—	1.590" (43 mm)	10
CI-750	25651	750 kcmil compressed and concentric	—	1.590" (43 mm)	10

Specifications and Ordering Information for 3M™ CI Series Connectors 5450 Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-22A	15868	—	2 AWG	0.910" (23 mm)	10
CI-2A	00721	2 AWG	1 AWG	0.910" (23 mm)	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	10
CI-21-840	09136	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	10
CI-1/0A	14176	1/0 AWG	—	0.910" (23 mm)	10
CI-1/0-840	09137	1/0 AWG	—	0.910" (23 mm)	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	10
CI-3/0	11883	3/0 AWG	—	0.910" (23 mm)	10
CI-4/0	11891	4/0 AWG	—	0.910" (23 mm)	10

Specifications and Ordering Information for 3M™ CI and CI-A Series Connectors for 5451A



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Splice Body	Case Qty.
		Stranded	Solid			
CI-21-840	09136	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	5451A	10
CI-1A	00722	1 AWG	1/0 AWG	0.910" (23 mm)	5451A	10
CI-1/0A	14176	1/0 AWG	—	0.910" (23 mm)	5451A	10
CI-1/0-840	09137	1/0 AWG	—	0.910" (23 mm)	5451A	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	5451A	10

Specifications and Ordering Information for 3M™ CIR Series Repair Connectors for 3M™ Rubber Splices 5451R Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Splice Body	Case Qty.
		Stranded	Solid			
CIR-21A	50227	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	5451R	10
CIR-1/0A	50226	1/0 AWG	—	0.910" (23 mm)	5451R	10

No special
tools
required



1/C, 25/28 kV, JCN/CN Cold Shrink Splices

3M™ Cold Shrink QS-III Cable Splices 5456A, 5457A and 5458A

3M Cold Shrink QS-III Series Splicing Kits 5456A, 5457A and 5458A are inline splices for joining 25/28 kV Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) power cables. It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability.

Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M Reducer Connectors 2000T-Series are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

3M™ Cold Shrink QS-III 5456A, 5457A and 5458A Series Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable — See above for cable type illustrations.					
25/28 kV CN and JCN cables					
5456A	53793	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm ²)	None	1
5456A-1-AL	53794	0.84-1.36" (21,3-34,5 mm)	1 AWG	20004	1
5456A-1-CU	53795	0.84-1.36" (21,3-34,5 mm)	1 AWG	10004	1
5456A-1/0-AL	53796	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	20005	1
5456A-1/0-CU	53797	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	10005	1
5456A-2/0-AL	53798	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	20006	1
5456A-2/0-CU	53799	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	10006	1
5456A-3/0-AL	53800	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	20007	1
5456A-3/0-CU	53801	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	10007	1
5456A-4/0-AL	53802	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	20008	1
5456A-4/0-CU	53803	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	10008	1
5456A-250-AL	53935	0.84-1.36" (21,3-34,5 mm)	250 kcmil	20009	1
5456A-250-CU	53936	0.84-1.36" (21,3-34,5 mm)	250 kcmil	10009	1
5456A-WG*	53804	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm ²)	None	1
5457A	42149**	1.07-1.70" (27,2-43,2 mm)	250-500 kcmil (120-240 mm ²)	None	1
5457A-250-AL	53836	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5457A-250-CU	53837	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5457A-350-AL	42132**	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5457A-350-CU	44238**	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5457A-500-AL	42133**	1.07-1.70" (27,2-43,2 mm)	500 kcmil	20014	1
5457A-500-CU	44239**	1.07-1.70" (27,2-43,2 mm)	500 kcmil	10014	1
5457A-WG*	43416**	1.07-1.70" (27,2-43,2 mm)	250-500 kcmil (120-240 mm ²)	None	1
5458A	42908**	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm ²)	None	1
5458A-500-AL	04593**	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1

*5456A-WG, 5457A-WG and 5458A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.
 **UPC prefix 054007-

3M™ Cold Shrink QS-III 5456A, 5457A and 5458A Series Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
5458A-500-CU	04594**	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5458A-750-AL	42909**	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5458A-750-CU	44240**	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5458A-1000-AL	42910**	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5458A-1000-CU	44241**	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1
5458A-WG*	43417**	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm)	None	1

*5456A-WG, 5457A-WG and 5458A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.

**UPC prefix 054007-

1/C, 25/28 kV, Power Shielded Cold Shrink Splices

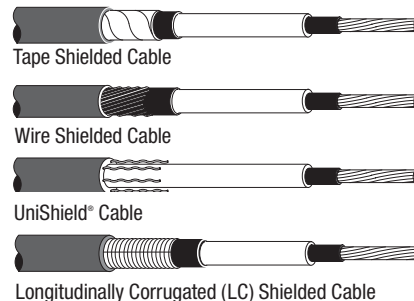
3M™ Cold Shrink QS-III Cable Splices 5524A, 5525A and 5526A



3M Cold Shrink QS-III Splicing Kits 5524A, 5525A and 5526A are inline splices for joining 25/28 kV Tape, Wire,

LC, and UniShield® power cables. It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors

packed in the kit, or the kit and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series. Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



3M™ Cold Shrink QS-III 5524A, 5525A and 5526A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
----------------	---------------	-------------------------------	----------------	-----------	-----------

Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable
See above for cable type illustrations.

25/28 kV LC, Wire, Tape and UniShield® cables					
5524A	53922	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm)	None	1
5524A-1-AL	53923	0.84-1.36" (21,3-34,5 mm)	1 AWG	20004	1
5524A-1-CU	53924	0.84-1.36" (21,3-34,5 mm)	1 AWG	10004	1
5524A-1/0-AL	53925	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	20005	1
5524A-1/0-CU	53926	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	10005	1
5524A-2/0-AL	53927	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	20006	1

3M™ Cold Shrink QS-III 5524A, 5525A and 5526A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
5524A-2/0-CU	53928	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	10006	1
5524A-3/0-AL	53929	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	20007	1
5524A-3/0-CU	53930	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	10007	1
5524A-4/0-AL	53931	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	20008	1
5524A-4/0-CU	53932	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	10008	1
5524A-250-AL	53933	0.84-1.36" (21,3-34,5 mm)	250 kcmil	20009	1
5524A-250-CU	53934	0.84-1.36" (21,3-34,5 mm)	250 kcmil	10009	1
5525A	42138*	1.07-1.70" (27,2-43,2 mm)	250-750 kcmil (120-325 mm ²)	None	1
5525A-250-AL	53845	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5525A-250-CU	53846	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5525A-350-AL	42140*	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5525A-350-CU	42902*	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5525A-500-AL	42141*	1.07-1.70" (27,2-43,2 mm)	500 kcmil	20014	1
5525A-500-CU	42903*	1.07-1.70" (27,2-43,2 mm)	500 kcmil	10014	1
5525A-750-AL	42904*	1.07-1.70" (27,2-43,2 mm)	750 kcmil	20019	1
5525A-750-CU	42127*	1.07-1.70" (27,2-43,2 mm)	750 kcmil	10019	1
5526A	42905*	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm ²)	None	1
5526A-500-AL	04597*	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1
5526A-500-CU	04598*	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5526A-750-AL	04595*	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5526A-750-CU	04596*	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5526A-1000-AL	42906*	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5526A-1000-CU	42907*	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1

*UPC prefix 054007-

3/C, 25/28 kV Shielded Armored or Non-Armored Cold Shrink Splices

3/C, 25/28 kV Shielded to Shielded Armored or Non-Armored Cold Shrink Splices

The Cold Shrink QS-III Splicing Series 57XXA-MT are three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV, 15 kV, 25 kV and 35 kV class. Kits include Armorcast structural material to reconstitute the cable's armor. Use the MT-C or MT-E Trifurcating Accessory Kit to transition from 3/C cable to 3-1/C cables. **Meets the requirements of IEEE 404.** Each kit makes one splice.

3M™ Cold Shrink QS-III 3-Conductor Cable Splices 5786A-MT, 5787A-MT and 5788A-MT Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
25/28 kV 3-Core Cables					
5786A-MT	53937	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm ²)	None	1
5787A-MT	43421*	1.07-1.70" (27,2-43,2 mm)	250-750 kcmil (120-325 mm ²)	None	1
5788A-MT	43422*	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm ²)	None	1

*UPC prefix 054007-

3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

Product Series	UPC (051128-)	Conductor Size	Single Conductor Jacket O.D. Range	Case Qty.
MT-C	55208	Single Conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single Conductor	1.13-1.80" (28,7-45,7 mm)	1

Selection Table

3M™ Splice 57XXA-MT	25/28 kV (260/280 mil)	Appropriate MT Transition Kit
Typical Conductor Size Range – AWG/kcmil*		
5786A-MT	1- 2/0	MT-C
5786A-MT	3/0-250	MT-E
5787A-MT	250-500	MT-E
5788A-MT	500	MT-E
MT-C Kit the Single Conductor Cable Jacket O.D. range is 0.62"-1.13" (15,7-28,7 mm).		
MT-E Kit the Single Conductor Cable Jacket O.D. range is 1.13"-1.80" (28,7-45,7 mm).		
*Typical conductor size range is based on typical cable jacket outside diameter (O.D.). Ranges shown at the bottom of the table are the final determining factor as to whether this transition kit will work with the cables being used.		

35 kV Splices 1/C, JCN/CN Molded Rubber Splices

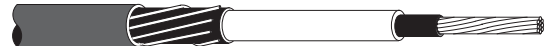
3M™ Molded Rubber Splices 5432, 5433 and 5461

3M Molded Rubber Splices Kits QS 5432, 5433 and 5461 are inline splices designed for use on 35 kV CN or JCN cable. Meets requirements of IEEE Standard 404. The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate.

For copper or aluminum conductor cable, select the correct splice with connector, from the table below. To order connector separately see page 147. Each kit makes one splice.



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

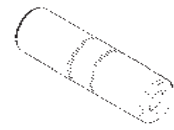
3M Splices 5432, 5433 and 5461 Series Selection

Product Series	UPC (054007-)	Primary Insulation O.D. Range	Conductor Size* Cu or Al	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.				
5432	02338	1.060-1.210" (27-31 mm)	2 Str.-1/0 Str. AWG	1
5432-CI-1A	08357	1.060-1.210" (27-31 mm)	1 Str.-1/0 Sol. AWG	1
5432-CI-1/0A	31222	1.060-1.210" (27-31 mm)	1/0 Str. AWG	1
5433	02339	1.120-1.320" (28-34 mm)	3/0-4/0 AWG	1
5433-CI-3/0B	49485	1.120-1.320" (28-34 mm)	3/0 AWG	1
5433-CI-4/0B	49486	1.120-1.320" (28-34 mm)	4/0 AWG	1
5461	09129	1.00-1.15" (25-29 mm)	1-1/0 AWG	1
5461-CI-1/0-840	09157	1.00-1.15" (25-29 mm)	1/0 AWG	1
5461-CI-1/0A	09156	1.00-1.15" (25-29 mm)	1/0 AWG	1

Jacketing kit is needed for JCN Cable. See page 384.

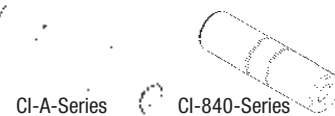
*Important: On all QS kits use the primary insulation O.D. range for final ordering criteria.

Specifications and Ordering Information for 3M™ CI and CI-A Series Connectors for 3M™ Rubber Splices 5432 and 5433 Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-1/0A	14176	1/0 AWG	—	0.91" (23 mm)	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	0.91" (23 mm)	10
CI-3/0B	—	3/0 AWG	3/0 AWG	—	10
CI-4/0B	—	4/0 AWG	4/0 AWG	—	10

Specifications and Ordering Information for 3M™ CI-A and CI-840 Series Connectors for 3M™ Rubber Splices 5461 Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Case Qty.
		Stranded	Solid	
CI-1/0A	14176	1/0 AWG	—	10
CI-1/0-840	09137	1/0 AWG	—	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	10
CI-2A	00721	2 AWG	1 AWG	10

1/C, 35 kV, JCN/CN Cold Shrink Splices

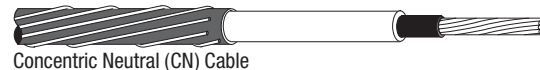
3M™ Cold Shrink QS-III Cable Splices 5467A and 5468A



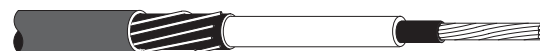
3M Cold Shrink QS-III Splicing Kits 5467A and 5468A Series are inline splices for joining 35 kV

Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) power cables. It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing

is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

3M™ Cold Shrink QS-III 5467A and 5468A Series Selection

Product Series	UPC (054007-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable					
35 kV CN and JCN cables					
5467A	43051	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm ²)	None	1
5467A-1/0-AL	43052	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	20005	1
5467A-1/0-CU	43057	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	10005	1
5467A-2/0-AL	43053	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	20006	1
5467A-2/0-CU	43058	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	10006	1
5467A-3/0-AL	43054	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	20007	1
5467A-3/0-CU	43059	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	10007	1
5467A-4/0-AL	43055	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	20008	1
5467A-4/0-CU	43060	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	10008	1
5467A-250-AL	43056	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5467A-250-CU	43061	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5467A-350-AL	04589	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5467A-350-CU	04590	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5467A-WG*	53883**	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm ²)	None	1
5468A	43062	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm ²)	None	1
5468A-350-AL	43063	1.24-2.07" (31,5-52,6 mm)	350 kcmil	20011	1
5468A-350-CU	43067	1.24-2.07" (31,5-52,6 mm)	350 kcmil	10011	1
5468A-500-AL	43064	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1
5468A-500-CU	43068	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5468A-750-AL	43065	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5468A-750-CU	43069	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5468A-1000-AL	43066	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5468A-1000-CU	43070	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1
5468A-WG*	53909**	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm ²)	None	1

*5467A-WG and 5468A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.

**UPC prefix 051128-

1/C, 35 kV, Power Shielded Cold Shrink Splices

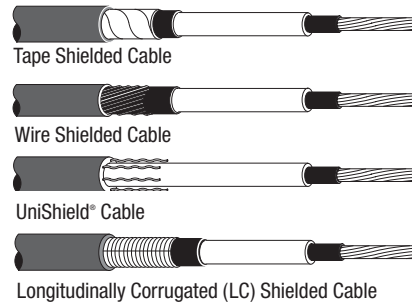
3M™ Cold Shrink QS-III Cable Splices 5535A and 5536A



3M Cold Shrink QS-III Splicing Kits 5535A and 5536A Series are inline splices for joining 35 kV Tape, Wire, LC,

and UniShield® power cables. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit, or the kit

and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**

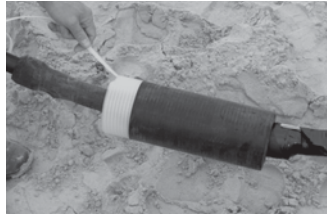


3M™ Cold Shrink QS-III Cable Splices 5535A and 5536A Series Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
35 kV LC, wire, tape and UniShield® cables					
5535A	43071	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm ²)	None	1
5535A-1/0-AL	43072	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	20005	1
5535A-1/0-CU	43077	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	10005	1
5535A-2/0-AL	43073	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	20006	1
5535A-2/0-CU	43078	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	10006	1
5535A-3/0-AL	43074	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	20007	1
5535A-3/0-CU	43079	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	10007	1
5535A-4/0-AL	43075	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	20008	1
5535A-4/0-CU	43080	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	10008	1
5535A-250-AL	43076	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5535A-250-CU	43081	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5535A-350-AL	04591	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5535A-350-CU	04592	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5536A	43082	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm ²)	None	1
5536A-350-AL	43083	1.24-2.07" (31,5-52,6 mm)	350 kcmil	20011	1
5536A-350-CU	43087	1.24-2.07" (31,5-52,6 mm)	350 kcmil	10011	1
5536A-500-AL	43084	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1
5536A-500-CU	43088	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5536A-750-AL	43085	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5536A-750-CU	43089	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5536A-1000-AL	43086	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5536A-1000-CU	43090	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1

1/C, 35 kV, JCN Cold Shrink Shield-Break Splices

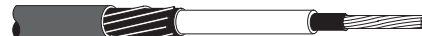
3M™ Cold Shrink QS-III Cable Splices 5467A-XB and 5468A-XB



3M Cold Shrink-Break QS-III Splicing Kits 5467A-XB and 5468A-XB Series are inline splices designed for providing a shield-break in the joining

of 35 kV Jacketed Concentric Neutral (JCN) power cables. It is a cold shrink design containing a built-in shield-break

of the splice insulation shield. The shield-break allows the splice to be used for shield-break and cross-bounding installations. Each splice is high-voltage production tested to ensure reliability. See page 147 to order 3M connectors. Each kit makes one shield-break splice. 3M Reducer Connectors 2000T-Series are available for conductor size transitions. Contact 3M your representative for appropriate selection. **Meets the requirements of IEEE 404.**



Jacketed Concentric Neutral (JCN) Cable

3M™ Cold Shrink QS-III Series 5467A-XB and 5468A-XB Selection

Product Series	UPC (051128-)	Cable Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Jacketed Concentric Neutral (JCN) Cable. See above for cable type illustrations.					
35 kV JCN cables					
5467A-XB	54939	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm ²)	None	1
5468A-XB	54940	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm ²)	None	1

3/C, 35 kV, Shielded Armored or Non-Armored Cold Shrink Splices

The 3M Cold Shrink QS-III Splicing Series 57XXA-MT are three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV, 15 kV, 25 kV and 35 kV class. Kits include

Armorcast structural material to reconstitute the cable's armor. Use the MT-C or MT-E Trifurcating Accessory Kit to transition from 3/C cable to 3-1/C cables. **Meets the requirements of IEEE 404.** Each kit makes one splice.

3M™ Cold Shrink QS-III Three-Conductor Cable Splices 5797A-MT and 5798A-MT Selection

Product Series	UPC (054007-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Three Conductor Armored, Shielded Cable, Three Conductor Non-Armored, Shielded Cable					
35 kV 3-Conductor Cables					
5797A-MT	43419	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm ²)	None	1
5798A-MT	43420	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm ²)	None	1

3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

Product Series	UPC (051128-)	Conductor Size	Single Conductor Jacket O.D. Range	Case Qty.
MT-C	55208	Single Conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single Conductor	1.13-1.80" (28,7-45,7 mm)	1

Selection Table

3M™ Splice 57XXA-MT	35 kV (345 mil)	Appropriate MT Transition Kit
*Typical Conductor Size Range – AWG/kcmil		
5797A-MT	1/0- 350	MT-E
5798A-MT	350	MT-E
MT-C Kit the Single Conductor Cable Jacket O.D. range is 0.62"-1.13" (15,7-28,7 mm).		
MT-E Kit the Single Conductor Cable Jacket O.D. range is 1.13"-1.80" (28,7-45,7 mm).		
*Typical conductor size range is based on typical cable jacket outside diameter (O.D.). Ranges shown at the bottom of the table are the final determining factor as to whether this transition kit will work with the cables being used.		

1/C, 46 kV, Power Shielded Cold Shrink Splices

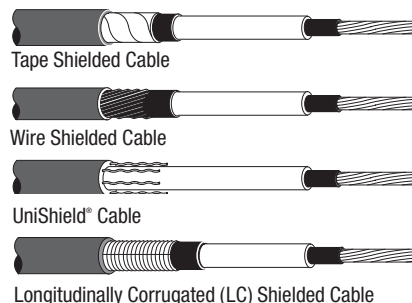
3M™ Cold Shrink QS-III Cable Splice 5545A



3M Cold Shrink QS-III Splicing Kits 5545A is an inline splice for joining 46 kV Tape, Wire, LC, and UniShield®

power cables. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit, or the kit and connector

can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



3M Cold Shrink QS-III Splice 5545A

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
46 kV LC, Wire, Tape and UniShield® Cables					
5545A	55089	1.24-2.07" (31,5-52,6 mm)	4/0-1000 kcmil (120-500 mm)	None	1

*4/0 AWG and 250 kcmil cable may be used with aluminum connectors ONLY—do not use 4/0 AWG or 250 kcmil copper connectors.

PILC Splices and Accessories

1/C Low Voltage Splices 0-600V (1000V Rated)

3M™ Cable Splices CS500Pb Series 1000V

3M Cold Shrink CS500Pb Series splice kits are a series of kits rated 1000 volts for splicing Paper Insulated Lead Covered (PILC) cable. The splice kits can be used to connect PILC to PILC or used to connect PILC to

Poly/EPR cables. The splice kits also meet the requirement of ANSI Standard C119.1. 3M Scotchlok™ 2000T series copper connectors are provided with these kits. Each kit makes one splice.



Single Conductor PILC Cable

CS500PB SERIES

FEATURES	BENEFITS
Simple safe installation	No tools or special training needed
Water resistant	Meets the water seal requirements of ANSI C119.1
No torches or heat required	Quick installation using tube on removable core technology
Connectors are provided	Copper oil stop connectors meet requirements of ANSI C119.4
Proven oil stop performance	Withstand internal oil pressures exceeding 100 PSI and vacuum to 18 inches Mercury

3M™ Cold Shrink Splice Kits Selection CS500Pb Series

Product Series	UPC (054007-)	Secondary Cable Conductor Size	PILC Cable Lead O.D. Range	Poly/EPR Cable Insulation O.D. Range	Case Qty.
Single Conductor PILC Cable See above for cable type illustration.					
CS503Pb-1/0	44157	1/0 AWG	0.63-1.03" (16,0-26,1 mm)	0.34-1.03" (8,6-26,1 mm)	1
CS506Pb-250	44161	250 kcmil	0.92-1.40" (23,3-35,5 mm)	0.56-1.40" (14,2-35,5 mm)	1
CS506Pb-350	44163	350 kcmil	0.92-1.40" (23,3-35,5 mm)	0.56-1.40" (14,2-35,5 mm)	1
CS508Pb-500	44169	500 kcmil	1.00-1.62" (25,4-41,1 mm)	0.73-1.73" (18,5-43,9 mm)	1

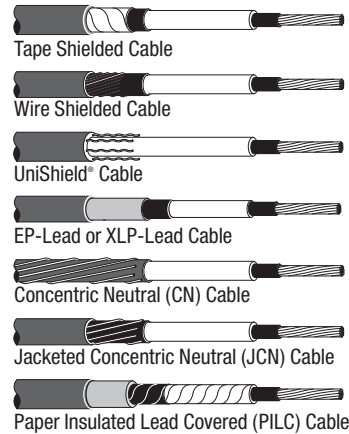
1/C PILC and PILC Transition, 15 kV Cold Shrink Splices

3M™ Cold Shrink Splice Kit QS-2000T 1/C PILC to 1/C Poly/EPR or 1/C PILC to 1/C PILC Cable Splices



The 3M Cold Shrink Splice Kit QS2000T allows you to splice either single-conductor PILC cable to single-conductor PILC cable, or single-conductor PILC cable to single-conductor Poly/EPR cable. Because of the design of the splice, size transitions can also be accommodated rather easily. The 3M QS-2000T kits meet the requirements of IEEE 404.

Use 3M™ Scotchlok™ Connectors 2000T Series with these splice kits. See page 147 to order connectors. Each kit makes one single conductor splice.



3M™ Cold Shrink Splices QS-2000T Series Selection

Product Series	UPC (054007-)	PILC Cable Insulation O.D. Range	PILC Cable Size	Poly/EPR Cable Size	Poly/EPR Insulation O.D. Range	Connector Requirements O.D. Max. Connector Length		
						Aluminum	Copper	
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable, Paper Insulated Lead Covered (PILC) Cable See above for cable type illustrations.								
QS-2011T	50546	0.56-0.88" (14,2-22,4 mm)	4-3/0 AWG (25-70 mm ²)	1-4/0 AWG (50-95 mm ²)	0.70-1.07" (17,8-27,2 mm)	0.70-1.07" (17,8-27,2 mm)	5.0" (127 mm)	5.5" (140 mm)
QS-2012T	50547	0.74-1.17" (18,8-29,7 mm)	3/0 AWG-350 kcmil (95-185 mm ²)	4/0 AWG-500 kcmil (120-240 mm ²)	0.88-1.36" (22,0-34,6 mm)	0.88-1.36" (22,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2013T	50555	0.98-1.56" (24,9-39,6 mm)	400-1000 kcmil (200-500 mm ²)	500-1000 kcmil (240-500 mm ²)	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm)	7.5" (190 mm)

QS-2000T Ordering Examples

Example 1: You need a 15 kV-3 AWG CU PILC spliced to a 15 kV-1/0 AWG AI EPR.

Order: QS-2000T-3 – 1/0.

Example 2: You need a 15 kV-500 kcmil CU PILC spliced to a 15 kV-500 kcmil Cu XLP.

Order: QS-2000T – 500.

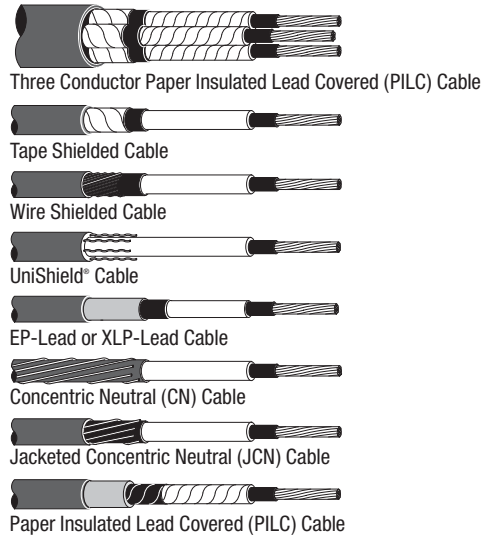
3/C to 1/C, 15 kV Cold Shrink PILC Transition Splices

3M™ Cold Shrink Splice Kit QS-2000-3T and QS-2000-3T-WS 3/C PILC to 1/C Poly/EPR Cable Trifurcating Splices



3M Cold Shrink Splice Kit QS-2000-3T and QS-2000-3T-WS Trifurcating Transition Splices are rated 15 kV. They are specially designed splice kits for connecting three conductor Paper Insulated

Lead Covered (PILC) cable to three single conductor Poly/EPR insulated cables. Splices meet the requirements of IEEE Standard 404. Use 3M Scotchlok™ 2000T Series connectors with these kits. See page 162. Each kit makes one three conductor to three single conductors splice.



3M Cold Shrink Splices QS-2000-3T and QS-2000-3T-WS Series Selection

Product Series	UPC (054007-)	PILC Cable Size	Poly/EPR Cable Size	Poly/EPR Insulation O.D. Range	Connector Requirements		
					O.D. Max. Connector Length Aluminum	O.D. Max. Connector Length Copper	
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.							
QS-2011-3T	42021	4-3/0 AWG (25-70 mm ²)	1-4/0 AWG (50-95 mm ²)	0.70-1.07" (17,8-27,2 mm)	0.70-1.07" (17,8-27,2 mm)	5.0" (127 mm)	5.5" (140 mm)
QS-2012-3T	42022	3/0 AWG-250 kcmil (95-120 mm ²)	4/0 AWG-500 kcmil (120-240 mm ²)	0.88-1.36" (22,0-34,6 mm)	0.88-1.36" (22,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2012/13-3T	44202	350-500 kcmil (195-240 mm ²)	250-500 kcmil (120-240 mm ²)	0.91-1.36" (23,0-34,6 mm)	0.91-1.36" (28,0-42,0 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2013-3T	42023	400-800 kcmil (200-400 mm ²)	500-1000 kcmil (240-500 mm ²)	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm)	7.5" (190 mm)
QS-2011-3T-WS*	43248	4-3/0 AWG (25-95 mm ²)	1-4/0 AWG (35-95 mm ²)	0.70-1.07" (17,8-27,2 mm)	0.70-1.07" (17,8-27,2 mm)	5.0" (127 mm)	5.5" (140 mm)
QS-2012-3T-WS*	04211	3/0 AWG-250 kcmil (95-120 mm ²)	4/0 AWG-500 kcmil (120-240 mm ²)	0.88-1.36" (22,0-34,6 mm)	0.88-1.36" (22,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2012/13-3T-WS*	04644	350-500 kcmil (195-240 mm ²)	250-500 kcmil (120-240 mm ²)	0.91-1.36" (23,0-34,6 mm)	0.91-1.36" (23,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2013-3T-WS*	04212	400-800 kcmil (200-400 mm ²)	500-1000 kcmil (240-500 mm ²)	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm)	7.5" (190 mm)

*QS-2000-3T-WS uses wrap-around heat shrink.

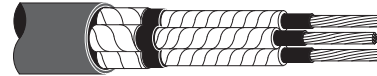
3/C, 15 kV Cold Shrink PILC Transition Splices

3M™ Cold Shrink Splice Kit QS-2013-3T-3C 3/C PILC to 3/C Poly/EPR Cable Splice



The 3M Cold Shrink QS-2013-3T-3C Splice Kit is rated 15 kV. It is specially designed for connecting three conductor shielded or belted Paper Insulated Lead Covered (PILC) cable to three conductor

shielded Poly/EPR insulated cables. The splice meets the requirements of IEEE Standard 404. Use 3M Scotchlok™ 2000T Series connectors with this kit. See page 162. Each kit makes one three conductor to three conductor splice.



Three-Conductor Paper Insulated Lead Covered (PILC) Cable



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

3M™ Cold Shrink Splice QS-2013-3T-3C Series

Product Series	UPC (054007-)	PILC Cable Size	Poly/EPR Cable Size	Poly/EPR Insulation O.D. Range	Connector Requirements O.D. Max. Connector Length	
					Aluminum	Copper
QS-2013-3T-3C	43247	400-800 kcmil (200-400 mm ²)	500-750 kcmil (240-325 mm ²)	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm) / 7.5" (190 mm)

Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable
See above for cable type illustrations.

3M™ Cold Shrink 5110-OS Series 15-25/28 kV Cable Accessory Oil Stops

3M Cold Shrink 5110-OS series kits are designed for use on PILC (Paper Insulated Lead Covered) cable with 200 Amp elbows and 600 Amp modular splices (separable connectors) that meet the requirements of IEEE Standard 386. There are four kits in the series that seal the oil inside the PILC cable, provide an accessory ground lead and environmentally seal the accessory end and cable jacket. These kits can be used on PILC cables sized 4 AWG to 1000 kcmil rated 15 kV and 2 AWG to 800 kcmil rated

Kit contents:

Each kit contains sufficient quantities of the following materials to seal and ground one cable end.

- Cold Shrink Oil Stop Tube
- Cold Shrink Jacket Tube
- White Restricting Tape
- Scotch® 130C Rubber Tape
- Scotch® 13 Semi-Conducting Tape
- Ground Lead with Accessory Bleed Wire
- Mastic Seal Strips
- Instruction for 200 Amp Accessory
- Instruction for 600 Amp Accessory

3M™ Cold Shrink 5110-OS Series Selection

Kit Number	UPC (054007-)	Minimum Insulation Diameter* in. (mm)	Maximum Lead Diameter in. (mm)	Conductor Size Range	
				15 kV	25/28 kV
5110-OS	43404	0.58" (14,7 mm)	1.10" (27,9 mm)	4-3/0 AWG	—
5111-OS	43405	0.72" (18,3 mm)	1.30" (33,0 mm)	4/0 AWG-300 kcmil	2-1/0 AWG
5112-OS	43406	0.92" (23,4 mm)	1.60" (40,6 mm)	350-600 kcmil	2/0 AWG-300 kcmil
5113-OS	43407	1.10" (27,9 mm)	2.00" (50,8 mm)	750-1000 kcmil	350-800 kcmil

*Over paper insulation.

Connectors

3M™ Scotchlok™ Reducer Series Oil Stop Connectors 2000T CU/AL



3M Scotchlok Reducer Series Connectors 2000T are aluminum inline sleeves that are applicable for both aluminum and copper conductors. When used with sector shaped conductors, a rounding die

is recommended to round-out the sector shape. The reducer series connectors 2000T Series are designed for use with 3M™ Splice Kits CS500 Series, 2000T Series, 2000-3T Series and 5700 Series splice kits. These connectors have a solid center oil stop and meet the requirements of ANSI Standard C-119.4.

3M Scotchlok Reducer Series 2000T CU/AL Selection

Product Number	UPC (054007-)	O.D. (in.)	Length (in.)	Case Qty.
2000T 2-1/0 CU/AL	42226	0.640"	4.740"	9 connectors
2000T 1/0-2/0 CU/AL	42228	0.910"	4.700"	3 connectors
2000T 2/0-4/0 CU/AL	42229	0.910"	4.700"	3 connectors
2000T 4/0-350 CU/AL	42231	1.125"	4.700"	3 connectors
2000T 250-350 CU/AL	42232	1.125"	4.690"	3 connectors
2000T 350-500 CU/AL	42234	1.320"	4.700"	3 connectors
2000T 500-750 CU/AL	42236	1.600"	6.250"	3 connectors
2000T 500-1000 CU/AL	42238	1.625"	6.250"	3 connectors
2000T 750-1000 CU/AL	42243	1.625"	6.250"	3 connectors

3M™ Scotchlok™ Oil Stop Connectors 2000T CU

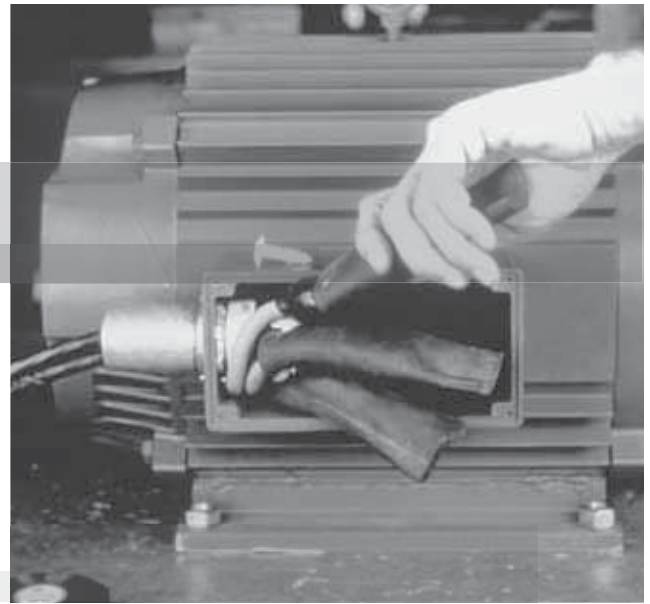
3M Scotchlok Connectors 2000T series are copper inline connectors for use with copper conductor cables. They are for connecting copper cables only. They are designed with a solid center oil stop for use with CS500 Series splice kits, 3M Scotchlok 2000T Series, 3M Scotchlok 2000-3T Series and 5700 Series splice kits. They can be used on concentric, compressed and compact stranded conductors. When used with sector shaped conductors, a rounding die is recommended to round-out the sector shape. These connectors meet ANSI Standard C-119.4.

3M Scotchlok 2000T CU Series Selection

Product Number	UPC (054007-)	O.D. (in.)	Length (in.)	Case Qty.
2000T-2 CU	42247	0.700"	5.320"	9 connectors
2000T-1/0 CU	42249	0.700"	5.320"	3 connectors
2000T-2/0 CU	42250	0.700"	5.320"	3 connectors
2000T-4/0 CU	42252	0.880"	5.250"	3 connectors
2000T -250 CU	42253	0.880"	5.250"	3 connectors
2000T-350 CU	42255	0.875"	5.250"	3 connectors
2000T-400 CU	42256	1.125"	6.900"	3 connectors
2000T-500 CU	42258	1.125"	6.900"	3 connectors
2000T-750 CU	42263	1.299"	6.900"	3 connectors
2000T-1000 CU	42265	1.500"	6.900"	3 connectors

Motor Lead Connections

Motor Lead Connections 1 kV	377
Motor Lead Connections 5 and 8 kV	379



Motor Lead Connections 1 kV

3M provides a convenient kit with everything needed to quickly make lugged motor lead connections to feeder cables. Each kit makes three splices and is designed exclusively for the abrasion, moisture, grime and temperature extremes of the industrial environment.

3M™ Motor Lead Connectors meet requirements for CSA certification and NRTL certification.*

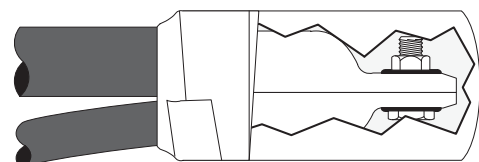


Single Conductor Cable

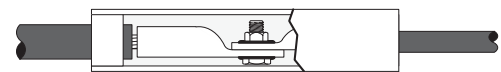
3M™ Non-Shielded Cable Motor Lead Connections—Pigtail and Inline for 1 kV

Motor lead pigtail connections (5300 through 5304, copper 1 hole lugs only) and inline splices (5311 through 5314) are designed to splice 1000V or less, nonshielded feeder and motor lead cable. The splices are made with a slip-on lug cover made of EPDM rubber. Each kit makes three splices.

*NRTL = CSA approved for use in the United States.












5300 Pigtail



5311 Inline

Specifications and Ordering Information for 3M™ Motor Lead Connections 1 kV

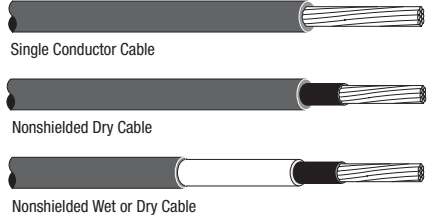
Product Number	5300	5301	5302	5303	5304	5311	5312	5313	5314
Single Conductor Cable. See previous page for cable type illustration. Each kit makes three splices									
Cable Type	Pigtail					Inline			
KIT CONTENTS:									
Pigtail-Lug Covers	•	•	•	•	•	—	—	—	—
Inline-Splice Covers	—	—	—	—	—	•	•	•	•
Locking Pins	—	—	•	•	•	—	—	—	—
Mastic Sealing Strips	•	•	•	•	•	—	—	—	—
Silicone Grease Lubricant	•	•	•	•	•	•	•	•	•
Adapter Sleeves	—	—	—	—	—	•	•	•	•
Instructions	•	•	•	•	•	•	•	•	•
SPECIFICATIONS:									
Suggested Lug	Copper 1-hole	Copper 1-hole	Copper 1-hole	Copper 1-hole	Copper 1-hole	Copper 1-hole	Copper 1-hole	Copper 1-hole	Copper 1-hole
Feeder	14-10 AWG (2,5-4 mm ²)	10-4AWG (6-16 mm ²)	2-1/0 AWG (35-50 mm ²)	1/0 AWG- 250 kcmil (60-120 mm ²)	250-500 kcmil (150-240 mm ²)	10-4 AWG (6-16 mm ²)	2-1/0 AWG (35-50 mm ²)	1/0 AWG- 250 kcmil (60-120 mm ²)	250-500 kcmil (150-240 mm ²)
Motor Lead	16-12 AWG (1,5-2,5 mm ²)	12-4 AWG (4-16 mm ²)	4-1/0 AWG (25-50 mm ²)	2 AWG- 250 kcmil (35-120 mm ²)	4/0 AWG- 500 kcmil (120-240 mm ²)	12-4 AW (4-16 mm ²)	4-1/0 AWG (25-50 mm ²)	2 AWG- 250 kcmil (35-120 mm ²)	4/0 AWG- 500 kcmil (120-240 mm ²)
Lug Cover ID*	.45" (11 mm)	.70" (18 mm)	.95" (24 mm)	1.2" (30 mm)	1.7" (43 mm)				
CSA File #LR 77372-2									
Ordering Information	5300	5301	5302	5303	5304	5311	5312	5313	5314
UPC (054007-)	08317	12263	12264	12265	12266	12267	12268	12269	12270
Case Qty. (3 splices/kit)	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit

Note: Lugs not included in kits.

*Lug Cover ID: Use when calculating kit sizing for a connection of more than two conductors (e.g. 3-way, 4-way, etc.) Use of one-hole stacking lugs is recommended.

Motor Lead Connections 5 and 8 kV

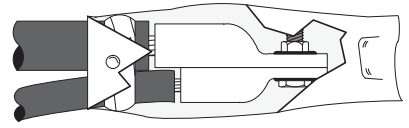
3M™ Motor Lead Connections— Pigtail for Non-Shielded 5 and 8 kV Cable



Motor lead pigtail connections (5316 through 5319) are designed to splice up to 5 to 8 kV non-shielded feeder and motor lead cables. The splices are made with a slip-on lug cover made of EPDM rubber. Use with 1- or 2-hole copper lugs. Each kit makes three splices.

Suggested 3M Lugs

Motor Lead Kit	Suggested Lug Type	Page
5300-5304	Copper 1 hole lugs only	378
5311-5314	Copper 1 hole lugs only	378
5316-5319	Copper 1 or 2 hole lugs	379
5321-5324	1 or 2 hole lugs	380
5331-5334	1 or 2 hole lugs	382



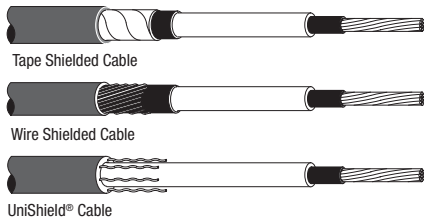
Pigtail Non-Shielded

Specification and Ordering Information for 3M™ Motor Lead Connections Non-Shielded 5 and 8 kV

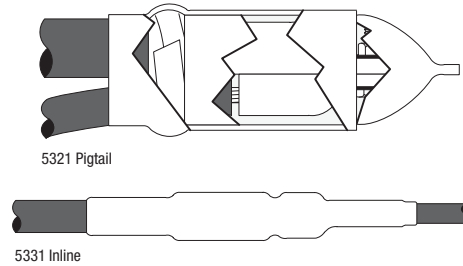
Product Number	5316	5317	5318	5319
Cable Type	Single Conductor Cable, Non-Shielded Dry Cable, Non-Shielded Wet or Dry Cable See above for cable type illustration. Each kit makes three splices.			
Nonshielded Cable				
KIT CONTENTS:				
Pigtail-Lug Covers	•	•	•	•
Locking Pins	•	•	•	•
Mastic Sealing Strips	•	•	•	•
Solvent Cleaning Cloths	•	•	•	•
Silicone Grease Lubricant	•	•	•	•
Cold Shrink Sleeves	—	—	—	—
Scotch® 2220 Stress Control Tape	—	—	—	—
Rubber Tape	•	•	•	•
Adapter Sleeves	—	—	—	—
Instructions	•	•	•	•
SPECIFICATIONS:				
Suggested Lug	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole
Feeder	8-4 AWG (10-16 mm ²)	2-1/0 AWG (35-50 mm ²)	1/0 AWG-250 kcmil (60-120 mm ²)	250-500 kcmil (150-240 mm ²)
Motor Lead	10-4 AWG (6-16 mm ²)	4-1/0 AWG (25-50 mm ²)	2 AWG-250 kcmil (35-120 mm ²)	4/0 AWG-500 kcmil (120-240 mm ²)
CSA File #LR 77372-2	SF	SF	SF	SF
Ordering Information	5316	5317	5318	5319
UPC (054007-)	08313	08314	08315	08316
Case Qty. (3 splices/kit)	1 kit	1 kit	1 kit	1 kit

Note: Lugs not included in kits.

3M™ Shielded Cable Motor Lead Connections—Pigtail and Inline for 5 and 8 kV



The splices are made with a cold shrink lug cover of EPDM rubber. Use with 1 or 2 hole lugs. Each kit makes three splices.



Motor lead pigtail connections (5321 through 5324 copper lugs only) and inline splices (5331 through 5334) are designed to splice 5 to 8 kV shielded (Tape or Wire Shielded and UniShield®) and nonshielded feeder cable.

Specifications and Ordering Information for 3M™ Motor Lead Connections Shielded 5 and 8 kV

Product Number	5321	5322	5323	5324
Cable Type	Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable See above for cable type illustration. Each kit makes three splices.			
Shielded Cable				
KIT CONTENTS:				
Pigtail-Lug Covers	•	•	•	•
Mastic Sealing Strips	•	•	•	•
Solvent Cleaning Cloths	•	•	•	•
Silicone Grease Lubricant	•	•	•	•
Cold Shrink Sleeves	•	•	•	•
Scotch® 2220 Stress Control Tape	•	•	•	•
Rubber Tape	•	•	•	•
Instructions	•	•	•	•
SPECIFICATIONS:				
Suggested Lug	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole
Feeder	8-4 AWG (10-16 mm ²)	2-1/0 AWG (35-50 mm ²)	1/0 AWG-250 kcmil (60-120 mm ²)	250-500 kcmil (150-240 mm ²)
Motor Lead	10-4 AWG (6-16 mm ²)	4-1/0 AWG (25-50 mm ²)	2 AWG-250 kcmil (35-120 mm ²)	4/0 AWG-500 kcmil (120-240 mm ²)
CSA File #LR 77372-2	—	—	ⓈⓅ	ⓈⓅ
Ordering Information	5321	5322	5323	5324
UPC (054007-)	12271	12272	12273	12274
Case Qty. (3 splices/kit)	1 kit	1 kit	1 kit	1 kit

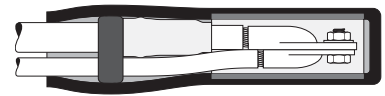
Note: Lugs not included in kits. For replacement parts, see next page.
UniShield® is a registered trademark of BICC.

3M™ Motor Lead Pigtail or V-Stub Splice 5380 Series for 5 and 8 kV Shielded and Non-Shielded Cables

3M™ Motor Lead Splicing Kits 5380 Series are a series of kits designed for splicing motor lead cables to incoming feeder cables. These kits are removable and reusable. These kits can accommodate pigtail (stub) connections, 5/8 kV shielded and nonshielded feeders.

The splice's main component, the lug or splice cover, is made from EPDM rubber as a slip-on insulator. Mastic is used for the moisture seal on the pigtail kits. The kits utilize a high dielectric constant (K) stress control termination for the feeder cable's electrical stress control.

These kits are designed to be used with copper compression lugs. After being crimped onto the cables, the lugs are bolted together, then insulated and sealed with the 3M Motor Lead Splicing Kits. Each kit contains all the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlok™ Copper Compression Lugs 30000 Series, or other UL listed copper lugs, can be used.







Specifications and Ordering Information for 3M™ Motor Lead Pigtail or V-Stub Splice 5380 Series for 5 and 8 kV Shielded/Non-Shielded Cables

Specifications	5381	5382	5383	5384
Cable Type	Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable See page 380 for cable type illustration. Each kit makes three splices.			
Shielded Cable				
KIT CONTENTS:				
Lug Covers	•	•	•	•
Cold Shrink Terminations	•	•	•	•
Mastic Sealing Strips	•	•	•	•
Copper Tape Strips	•	•	•	•
Cleaning Kits	•	•	•	•
Tubes Silicone Grease	•	•	•	•
Cold Shrink Jacket Tubes	•	•	•	•
Constant Force Springs	•	•	•	•
Cable Ties	•	•	•	•
Ground Straps	•	•	•	•
Instruction Sheet	•	•	•	•
SPECIFICATIONS:				
Suggested Lug	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole
Feeder	8-4 AWG (10-16 mm ²)	2-1/0 AWG (35-50 mm ²)	1/0 AWG-250 kcmil (60-120 mm ²)	250-500 kcmil (150-240 mm ²)
Motor Lead	10-4 AWG (6-16 mm ²)	4-1/0 AWG (25-50 mm ²)	2 AWG-250 kcmil (35-120 mm ²)	4/0 AWG-500 kcmil (120-240 mm ²)
CSA File #LR 77372-2	—	—	—	—
Ordering Information	5381	5382	5383	5384
UPC (051128-)	55951	55952	55953	55954
Case Qty. (3 splices/kit)	1 kit	1 kit	1 kit	1 kit

Note: Lugs not included in kits.

Specifications and Ordering Information for 3M™ Motor Lead Connections Shielded 5 and 8 kV

Specifications	5331	5332	5333	5334
Cable Type	Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable See page 380 for cable type illustration. Each kit makes three splices.			
Shielded Cable				
KIT CONTENTS:				
Solvent Cleaning Cloths	•	•	•	•
Silicone Grease Lubricant	•	•	•	•
Cold Shrink Sleeves	•	•	•	•
Scotch® 2220 Stress Control Tape	•	•	•	•
Rubber Tape	•	•	•	•
Adapter Sleeves	•	•	•	•
Instructions	•	•	•	•
SPECIFICATIONS:				
Suggested Lug	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole	Copper 1 or 2 hole
Feeder	8-4 AWG (10-16 mm ²)	2-1/0 AWG (35-50 mm ²)	1/0 AWG-250 kcmil (60-120 mm ²)	250-500 kcmil (150-240 mm ²)
Motor Lead	10-4 AWG (6-16 mm ²)	4-1/0 AWG (25-50 mm ²)	2 AWG-250 kcmil (35-120 mm ²)	4/0 AWG-500 kcmil (120-240 mm ²)
CSA File #LR 77372-2				
Ordering Information	5331	5332	5333	5334
UPC (054007-)	12275	12276	12277	12278
Case Qty. (3 splices/kit)	1 kit	1 kit	1 kit	1 kit

Note: Lugs not included in kits.

PRODUCT REFERRAL GENERATOR

Taping

- Scotch® Super 33+ pg. 4
- Scotch® Super 88 pg. 4

Connecting pg. 31

Insulating

- 2200, 2210 Mastic Pads pg. 14
- 2230 Mastic Strips pg. 16

Cable Accessory Products

Splice Rejacketing	384
Splice Repair	387
3M™ Safety Sock Grounding Kits, Shielded and Jacketed URD Cable	388
Sealing and Grounding	390
3/C Cable Breakout Boots and 3/C Phase Rejacketing System	392
Insulating and Sealing Compounds	405
Mounting Brackets	407
3M™ Cold Shrink Corrosion Protection Kit CPT Series	408
Preparation and Cleaning	410
3M™ Electrostatic Animal Guard	412
Overhead Conductor Animal Guard Cover	413



Offers accessory products to assist with splice rejacketing, cable jacket sealing, grounding and cable preparation. Many of the products shown here are used with 3M splices and terminations. Remember to reference those sections for more product information.

Complete care
for any
kind of cable



Splice Rejacketing

When jacketed concentric neutral cable (JCN) is spliced, it is necessary to cover the junction between the cable jackets with a water resistant re-jacket. 3M offers three designs for splice re-jacketing: cold shrink one piece sleeve, cold shrink stacked sleeve, and heat shrink adhesive-lined sleeves.

3M™ Cold Shrink Splice Jacket Kits SJ-1A, SJ-2A, SJ-3A

Cold shrink jacket kits offer advanced, one-piece, water-tight re-jacketing for JCN cable splices. Designed as an accessory kit to re-jacket over molded rubber splices, the SJ Series is made from durable EPDM rubber.

3M Cold Shrink jacket kits SJ-1A, SJ-2A and SJ-3A offer advanced, one-piece, water-tight re-jacketing for JCN shielded power cable splices. The SJ series accommodates voltage classifications of 15 kV, 25 kV and 35 kV.

In addition to the open-ended, tubular rubber sleeve, each kit includes Scotch® Rubber Mastic Tape, which is used to adjust cable O.D. and provide a sure, long-lasting seal between the cable jacket and the cold shrink sleeve, as well as sealing around the cable ground conductor.

This unique, cold shrink re-jacketing kit eliminates the need for dangerous torches or special tooling.

Each kit jackets one splice.

3M™ Cold Shrink SJ-SS Series Stacked Sleeve Splice Jacket Kits SJ-1SS, SJ-2SS, SJ-3SS

Cold Shrink Jacket Kits SJ-1SS, SJ-2SS and SJ-3SS are two-piece, water tight re-jacketing kits for JCN cables.



3M™ Cold Shrink SJ-SS Series Stacked Sleeve Splice Jacket Kits SJ-1SS, SJ-2SS, SJ-3SS



3M™ Heat Shrinkable Splice Jacket Kits HSJ Series

Designed to re-jacket molded rubber splices, the SJ-SS Series kits are made of EPDM rubber. This unique two-piece design allows the two tubes to “stack” on top of each other during installation, requiring less space in the manhole or ditch to make the splice. Each kit contains one small cold shrink tube, one large cold shrink tube, one profile bushing and one roll of Scotch® Mastic Tape 2228. SJ-1SSR and SJ-2SSR are specially sized for repair splices.

Each kit jackets one splice.

3M™ Cold Shrink Foldback Splice Jacket Kits SJ-FB

3M Cold Shrink Foldback Splice Jacket Kits SJ-FB Series are a series of folded back, tubular rubber sleeves that combined with Scotch® Rubber Mastic Tape 2228 provide a sealed jacket over cable splices installed on jacketed power cable. These kits are similar to the FB tubes in the 3M Cold Shrink QS III splice kits.

The Scotch Rubber Mastic Tape 2228 provides for an assured sealing interface between the cable jacket and Cold Shrink Foldback Jacket Tube. Mastic strips are also used to seal around the optional, external ground conductor.

The jacketing tube is made from EPDM rubber that contains no chlorides or sulfurs. The completed jacket tube will be continuous from cable jacket to cable jacket, with no seams.

Four kit sizes cover an application range from 4 AWG, 15 kV to sizes larger than 4/0 AWG, 35 kV.

3M™ Heat Shrinkable Splice Jacket Kits HSJ Series

HSJ Series Heat Shrinkable Splice Jackets are adhesive lined for water-tight re-jacketing of JCN cable splices.

Each kit covers one splice.

Applications:

- To jacket inline splices installed on JCN cable and other jacketed power cables with continuous operating temperature of up to 105° C and an emergency overload temperature rating up to 140° C
- For use in indoor or outdoor installations including direct burial, aerial, and submersible applications
- Physical protection and moisture sealing of inline splices installed on shielded power cables having a solid dielectric insulation



Jacketed Concentric Neutral Cable (JCN)

Specifications and Ordering Information for 3M™ Splice Jacket Kits

Product Number	UPC (054007-)	Sleeve Length	Expanded Sleeve I.D.	Min. Cable Jacket O.D.	Max. Cable Splice O.D.	Max. Cable Jacket Opening	Splice Kit Product No.			Case Qty.
							15 kV	25 kV	35 kV	
3M COLD SHRINK SJ SERIES JACKET KITS FOR 15 KV, 25 KV AND 35 KV										
SJ-1A	69742	28" (711,2 mm)	2.7" (68,5 mm)	0.95" (24,1 mm)	2.4" (61,0 mm)	20" (508 mm)	5411	—	—	6
							5411A 5411R* 5412			
SJ-2A	69743	36" (914,4 mm)	3.7" (93,9 mm)	1.15" (29,2 mm)	3.3" (83,8 mm)	28" (711 mm)	5403	5420	5432	6
							5404	5421	5461	
							5405	5422		
							5406	5451 5451A 5452		
SJ-3A	69744	38" (965,2 mm)	4.3" (109,2 mm)	1.55" (39,4 mm)	4.0" (101,6 mm)	30" (762 mm)	5407	5423	5433	6
							5408	5424		
							5409	5425		
								5426		
3M COLD SHRINK SJ-FB SERIES JACKET KITS FOR 15 KV, 25 KV AND 35 KV										
SJ-1FB	55302	—	—	0.95" (24,1 mm)	2.20" (55,9 mm)	28" (71 mm)	5411	—	—	6
							5411A 5412			
SJ-2FB	55303	—	—	1.15" (29,2 mm)	3.25" (82,6 mm)	30" (76 mm)	5403	5420	5432	6
							5404	5421	5461	
							5405	5422		
							5406	5451 5451A 5452		
SJ-3FB	55304	—	—	1.55" (39,4 mm)	3.75" (95,3 mm)	30" (76 mm)	—	5423	5433	6
								5424		
								5425		
								5426		
SJ-4FB	55305	—	—	1.75" (44,5 mm)	4.10" (104,1 mm)	32" (81 mm)	—	—	—	6
Note: The above dimensions should be used to determine sizing for non-3M splices.										
3M COLD SHRINK SJ-SS SERIES COLD SHRINK STACKED SLEEVE KITS FOR 15 KV, 25 KV AND 35 KV										
SJ-1SS	50777	15"	2.4"	0.95"	2.4"	23"	5411	—	—	6
		(381,0 mm)	(60,9 mm)	(24,1 mm)	(61,0 mm)	(584 mm)	5411A			
		18" (457,2 mm)	3.1" (78,7 mm)				5412			

*3M 5411R QS-II requires an additional 8428-12 Cold Shrink tube to jacket the splice. The procedure for jacketing the 5411R QS-II is detailed in the SJ-1A kit installation instructions.

Specifications and Ordering Information for 3M™ Splice Jacket Kits

Product Number	UPC (054007-)	Sleeve Length	Expanded Sleeve I.D.	Min. Cable Jacket O.D.	Max. Cable Splice O.D.	Max. Cable Jacket Opening	Splice Kit Product No.			Case Qty.
							15 kV	25 kV	35 kV	
SJ-2SS	50778	19"	3.1"	1.15"	3.3"	31"	5403	5420	5432	6
		(482,6 mm)	(78,7 mm)	(29,2 mm)	(83,8 mm)	(787 mm)	5404	5421	5461	
		24"	3.7"				5405	5422		
		(609,6 mm)	(93,9 mm)				5406	5451		
SJ-3SS	50779	22"	3.7"	1.55"	4.0"	35"	5407	5423	5433	6
		(558,8 mm)	(93,9 mm)	(39,4 mm)	(101,6 mm)	(889 mm)	5408	5424		
		25"	4.3"				5409	5425		
		(635,0 mm)	(109,2 mm)					5426		
3M COLD SHRINK STACKED SLEEVE REPAIR JACKET KITS FOR 15 KV										
SJ-1SSR	41956	—	—	0.95" (25 mm)	1.95" (49,5 mm)	29" (737 mm)	5411R	—	—	6
SJ-2SSR	41957	—	—	1.15" (29,2 mm)	3.00" (76,2 mm)	37" (940 mm)	5412R 5451R	—	—	6
3M HSJ SERIES HEAT SHRINKABLE SPLICE JACKETS FOR 15 KV, 25 KV AND 35 KV										
HSJ-1	09270	33"	2.5"	0.85"	1.9"	22"	5411	—	—	10
		(84 mm)	(64 mm)	(21,6 mm)	(48,3 mm)	(559 mm)	5411A			
							5411R			
							5412			
HSJ-2	09271	40"	3.0"	1.00"	2.6"	28"	5403	5420	5432	10
		(102 mm)	(76 mm)	(25,4 mm)	(66,0 mm)	(711 mm)	5404	5421	5461	
							5405	5422		
							5406	5451		
							5412R	5451A		
								5451R		
HSJ-3	09272	40"	4.3"	1.50"	3.4"	28"	5407	5423	5433	5
		(102 mm)	(109 mm)	(38,1 mm)	(86,4 mm)	(711 mm)	5408	5424		
							5409	5425		
								25426		

*3M 5411R QS-II requires an additional 8428-12 Cold Shrink tube to jacket the splice. The procedure for jacketing the 5411R QS-II is detailed in the SJ-1A kit installation instructions.

Kit Contents for 3M Splice Jacket Kits

Product Number	SJ-1A	SJ-2A	SJ-3A	SJ-1SS	SJ-2SS	SJ-3SS	HSJ-1	HSJ-2	HSJ-3
Cable Type	Jacketed Concentric Neutral Cable (JCN) See page 385 for cable type illustration.								
Each kit jackets one splice									
	Cold Shrink Jacketing						Heat Shrink Jacketing		
Cold Shrink Tube	1	1	1	2	2	2	—	—	—
Scotch® Rubber Mastic Tape 2228	1	1	1	1	1	1	—	—	—
Heat Shrink Tube	—	—	—	—	—	—	1	1	1
Profile Bushing	—	—	—	1	1	1	—	—	—
Instructions	1	1	1	1	1	1	1	1	1

Splice Repair

3M™ HDCW Wraparound Heat Shrink Cable Repair Sleeves

3M HDCW Heat Shrink Wraparound Cable Repair Sleeves are designed to quickly repair damaged cable jacketing. They may also be used to re-jacket in-line splices. 3M HDCW wrap sleeves can be used as insulation material on cable and splices up to 1000 volts and as jacket repair material on cable up to 35 kV. The design of the wrap sleeve allows it to be installed in tight spaces with ordinary heating equipment such as a torch.

The 3M HDCW cable repair is made from modified cross-linked polyolefin, with a hot-melt adhesive liner on the inner side of the sleeve. Upon heating, the sleeve shrinks and the adhesive melts, creating a water-tight bond between the sleeve and the cable. 3M HDCW Wraparound Cable Repair Sleeves meet ANSI C119.1 requirements. A corrosion proof metal channel is used to close the sleeve during installation.

3M HDCW wrap sleeves are stocked in four lengths and five diameters. Other cut lengths are available upon request.

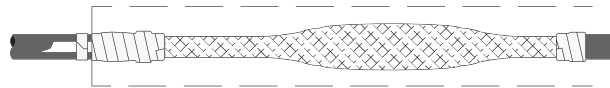


Application Guide and Ordering Information for 3M HDCW Wraparound Heat Shrink Cable Repair Sleeves

Part Number	UPC (051138-)	Length in. (mm)	600/1000V Conductor Size (AWG or MCM)	Jacket Repair Use Range Max./Min. in. (mm)	Sleeve Dimensions	
					Expanded Diameter in. (mm)	Reserved Diameter in. (mm)
HDCW 35/10-250	48416	9.8" (250 mm)	#8-2/0	1.38-0.39" (35-10 mm)	1.97" (50 mm)	0.32" (8 mm)
HDCW 35/10-1200	48436	47.2" (1200 mm)	#8-2/0	1.38-0.39" (35-10 mm)	1.97" (50 mm)	0.32" (8 mm)
HDCW 55/15-500	48421	19.7" (500 mm)	3/0-400	2.17-0.59" (55-15 mm)	2.95" (75 mm)	0.51" (13 mm)
HDCW 55/15-1200	48437	47.2" (1200 mm)	3/0-400	2.17-0.59" (55-15 mm)	2.95" (75 mm)	0.51" (13 mm)
HDCW 80/25-750	48426	29.5" (750 mm)	500-1000	3.15-0.98" (80-25 mm)	3.94" (100 mm)	0.91" (23 mm)
HDCW 80/25-1200	48438	47.2" (1200 mm)	500-1000	3.15-0.98" (80-25 mm)	3.94" (100 mm)	0.91" (23 mm)
HDCW 110/30-1000	48431	39.4" (1000 mm)	1000-2000	4.33-1.18" (110-30 mm)	5.20" (132 mm)	0.98" (25 mm)
HDCW 110/30-1200	48439	47.2" (1200 mm)	1000-2000	4.33-1.18" (110-30 mm)	5.20" (132 mm)	0.98" (25 mm)
HDCW 140/40-1000	48435	39.4" (1000 mm)	N/A	5.39-1.38" (137-35 mm)	5.71" (145 mm)	1.26" (32 mm)
HDCW 140/40-1200	48440	47.2" (1200 mm)	N/A	5.39-1.38" (137-35 mm)	5.71" (145 mm)	1.26" (32 mm)

3M™ Safety Sock Grounding Kits, Shielded and Jacketed URD Cable

For use on tape or wire shield and jacketed concentric neutral (JCN) cables. Provides continuity of the cable shield system and a path to ground in the event of a dig-in.



Ordering Notes:

- Each kit contains shielding for one splice
- Use the shield diameter range as final ordering criteria
- A re-jacketing sleeve, such as the 3M Ground Kits SJ Series, must be applied over shielding
- Kit contents: copper screen sleeve, mastic seal strips, constant-force springs, instructions

Specifications and Ordering Information for 3M™ Safety Sock Series Grounding Kits

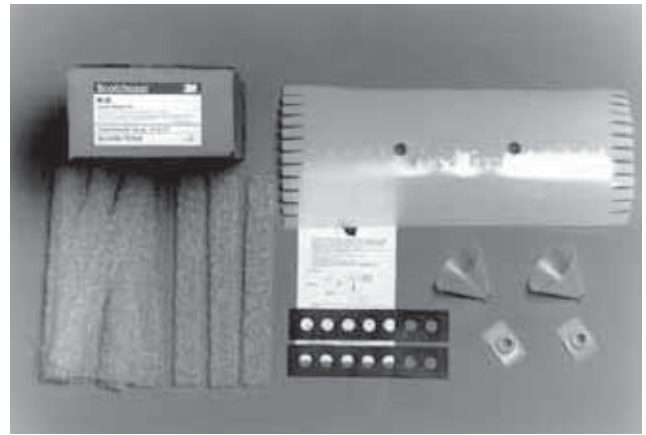
Product Number	UPC (051141-)	Cable Size	Shield Diameter Range	Case Qty.
SS-A	40745	—	0.47-0.78" (12-20 mm)	—
SS-1	15555	#2-3/0	0.78-1.47" (20-37 mm)	1
SS-2	15561	#4/0-500 kcmil	1.0-2.20" (25-56 mm)	1
SS-3	15557	500-1250 Kcmil	1.5-2.93" (38-74 mm)	1
SS-4	40455	—	1.77-4.21" (45-107 mm)	—

These kits are available in Canada only.

3M™ Scotchcast™ Jacket Repair Kits M Series

Scotchcast Jacket Repair Kits M Series contain a reusable wrap-around mold and accessory materials needed to make 10 permanent, flexible and moisture-resistant jacket repairs or splices of portable cable. The kit contains a wrap around mold that permits jacket repair without cutting through the cable. When used with 3M Scotchcast Resin 2130, M series kits provide durable, flexible jacket repair. Scotchcast kits can be used with portable power cable or standard cable.

Note: Scotchcast flame-retardant compound 2130 needed to jacket the repair or splice is not included and must be ordered separately. U.S. Mine Safety and Health Administration acceptance No. P-142-5 MSHA.



3M™ Scotchcast™ Jacket Repair Kits M Series

Specifications and Ordering Information for 3M Scotchcast Jacket Repair Kits M Series

Product Number	M-20	M-30	M-40
Cable Diameter Range	1.60-2.5" (41-64 mm)	1.85-4.0" (47-102 mm)	1.85-6.0" (47-152 mm)
Maximum Repair Length	13-15" (33-38 cm)	20" (51 cm)	32" (81 cm)
Ordering Information			
UPC (054007-)	31392	31393	31394
Case Qty.	1 kit	1 kit	1 kit

It's all
about
quality control



Sealing and Grounding

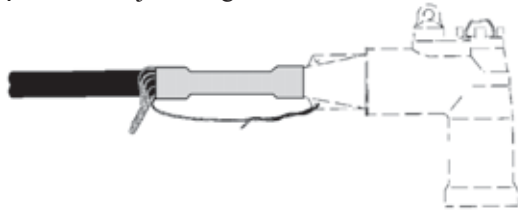
3M™ Cold Shrink Cable Accessory Sealing Kits 8450 Series are designed to seal the end of JCN cable. Use these kits when installing elbows or other cable accessories that do not include a jacket seal. 3M also offers three types of sheath sealing or breakout kits; poured resin, cold shrink and heat shrink, several heat shrink cable sealing end caps and a variety of grounding hardware.

3M™ Cold Shrink Cable Accessory Sealing Kits 8450 Series

The 3M Cold Shrink Cable Accessory Sealing Kits 8450 Series are designed to seal the jacket end of power cables where elbows or other cable accessories are installed. Both the sealing tube and mastic are compatible with commonly used power cable jacketing and semiconductive materials.



Note: Elbow not included.



Jacketed Concentric Neutral Cable (JCN)

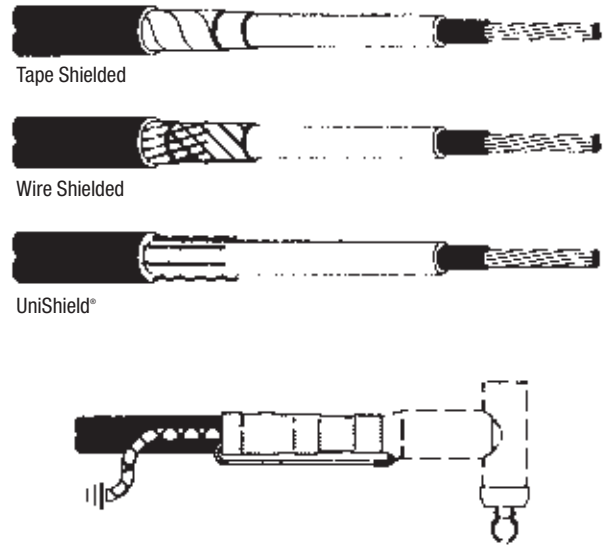
Specifications and Ordering Information for 3M Cold Shrink Cable Accessory Sealing Kits 8450 Series

Product Number	8452	8452L	8453	8454
CABLE TYPE	Jacketed Concentric Neutral Cable (JCN) See above for cable type illustration.			
CABLE SIZE/VOLT CLASS:				
Cable Size for 15 kV Class	2-4/0 AWG (35-100 mm ²)	2-4/0 AWG (35-100 mm ²)	2/0 AWG-1000 kcmil (70-500 mm ²)	750-1500 kcmil (380-725 mm ²)
Cable Size for 25 kV Class	2-2/0 AWG (35-50 mm ²)	2-2/0 AWG (35-50 mm ²)	1/0 AWG-750 kcmil (60-380 mm ²)	600-1250 kcmil (325-625 mm ²)
Cable Size for 35 kV Class	1/0 AWG (60 mm ²)	1/0 AWG (60 mm ²)	1/0 AWG-500 kcmil (60-250 mm ²)	350-1000 kcmil (180-500 mm ²)
Minimum Seal Diameter	0.95" (24 mm)	0.95" (24 mm)	1.28" (33 mm)	1.60" (41 mm)
Maximum Installed Diameter	1.94" (49 mm)	1.94" (49 mm)	2.67" (68 mm)	3.50" (89 mm)
KIT COMPONENTS:				
Cold Shrink Sealing Tube	1	1 (1/2" longer)	1	1
Mastic Sealing Strips 6" (152,4 mm)	3 strips	3 strips	4 strips	6 strips
Instructions	1	1	1	1
Ordering Information				
UPC (054007-)	08336	44312	09676	49938
Inner Unit Pack	1/bag	—	1/bag	—
Case Qty.	10 kits	10 kits	10 kits	10 kits

3M™ Cold Shrink Shield Adapter Kits 8459/8460 Series

3M Cold Shrink Shield Adapter Kits are designed for grounding and sealing tape, wire and UniShield shielded power cables when using cable accessories such as elbows, modular splices and terminations.

These cold shrink kits require no heat, special tools or special skills to install. The cold shrink kits come complete with all necessary components (except the cable accessory) and are installed in a few simple steps. We've even attached a "bleeder wire" to the ground strap eliminating the need for additional wire and connectors.



Specifications and Ordering Information for 3M Cold Shrink Shield Adapter Kits 8459/8460 Series

Product Number	8459	8460	8461	8462
CABLE TYPE	Tape Shielded, Wire Shielded, Unishield® See above for cable type illustration.			
JACKET O.D. RANGE				
Inches (mm)	0.59-1.05 (15,0-26,6)	0.83-1.64 (21,1-41,6)	1.27-2.17 (32,3-55,1)	1.70-2.60 (43,2-66,0)
CABLE SIZE/VOLT CLASS:				
Cable Size for 5/8 kV Class	8-1 kcmil (10-38 mm ²)	1/0 AWG-350 kcmil (50-200 mm ²)	500-1000 kcmil (240-500 mm ²)	—
Cable Size for 15 kV Class	—	2-250 kcmil (35-150 mm ²)	350-1000 kcmil (185-500 mm ²)	1250-1750 kcmil (600-850 mm ²)
Cable Size for 25 kV Class	—	2-250 kcmil (35-150 mm ²)	350-750 kcmil (185-500 mm ²)	1000-1500 kcmil (600-725 mm ²)
Cable Size for 35 kV Class	—	2-1/0 kcmil (35-60 mm ²)	2/0 AWG-350 kcmil (70-200 mm ²)	500-1000 kcmil (240-500 mm ²)
KIT COMPONENTS:				
Cold Shrink Sealing Tube	1	1	1	1
Mastic Sealing Strips 6" (152,4 mm)	3 strips	3 strips	3 strips	3 strips
Constant Force Spring	1	1	1	1
Preformed Ground Braid/ Bleeder Wire	1	1	1	1
Scotch® 13 Semi-Conductive Tape	1 strip	1 strip	1 strip	1 strip
Instructions	1	1	1	1
Ordering Information				
UPC (054007-)	53236*	41458	41459	53131*
Inner Unit Pack	1/bag	1/bag	1/bag	1/bag
Case Qty.	3 kits	3 kits	3 kits	3 kits
* UPC 051128-				

3/C Cable Breakout Boots and 3/C Phase Rejacketing System

3M™ Cold Shrink Silicone Rubber 3/C Cable Breakout Boots 8560 Series and 3M Silicone Rubber RJS Series 3/C Phase Rejacketing Systems are designed to be used in conjunction with 3M terminations, to seal the breakout area and rejacket the phases on three conductor cable without grounds.

3M™ Cold Shrink Silicone Rubber 3/C Cable Breakout Boots 8560 Series

3M Silicone Cold Shrink Cable Breakout Boots 8561 through 8565 are a series of open-ended molded rubber sealing assemblies that are factory expanded and mounted on removable inner-supporting plastic cores. They are supplied for field installation in a pre-stretched condition.

The supporting cores are removed after the seal has been positioned for installation around the breakout area of a three conductor cable. Core removal allows the silicone rubber boot to shrink down to a predetermined diameter, creating an environmental enclosure for individual cable phase legs and the overall cable jacket.

3M Breakout Boots 8560 Series are designed to protect the phase leg breakout of 3/C medium voltage power cable from exposure to moisture, contamination, corrosion, ozone, ultra-violet radiation, physical contact and other hazards associated with 3/C termination operating environments. 3M Breakout Boots 8560 Series can be used in conjunction with 3M Silicone Rubber Cold Shrink Rejacketing Sleeves for 3/C shielded power cable terminating applications.



3M™ QT-III Silicone Rubber

Features and Benefits:

- Versatile; installs quickly and accommodates a wide range of cable sizes
- Simple hand application; no need for special installation tools
- No torches or heat required
- No specific user skills or craftsmanship required
- Excellent resistance to ozone and ultra-violet radiation
- High dry and wet insulation resistance
- Highly flexible; accommodates all power cable supplier bend radius recommendations
- Seals tight; retains resiliency and pressure even after prolonged years of aging and exposure
- Compatible with all 3M Cold Shrink Termination Products and RJS Series Phase Rejacketing Sleeves

3M™ 3/C Phase Rejacketing System

3M RJS Series Rejacketing Sleeves are designed so that 3M Cold Shrink QT-III and Q-TIII Silicone Rubber Terminations can be used on 3/C (three conductor) medium voltage shielded power cables of tape shield, wire shield, armored and non-armored configurations. RJS Rejacketing Assemblies are a series of silicone rubber insulators incorporating an inner-expandable polyester braid designed to reduce sliding friction and deliver the insulator onto the cable. Rejacketing sleeves are designed to protect the phase legs (core) of 3/C shielded power cable from exposure to moisture, corrosion, ozone, ultra-violet radiation, physical contact and other hazards associated with termination operating environments. Rejacketing sleeves are designed to be used in conjunction with 3M Cold Shrink Breakout Boots and Silicone Rubber Terminations.

Features and Benefits:

- Versatile; installs quickly and accommodates a wide range of cable sizes
- Simple hand application; no need for special installation tools
- No torches or heat required
- No specific user skills or craftsmanship required
- Excellent resistance to ozone and ultra-violet radiation
- High dry and wet insulation resistance
- Excellent shelf life
- Easy-to-adjust sleeve length; adapts to variable equipment connection and mounting requirements
- Compatible with 3M Cold Shrink PST Breakout Boots and Termination Products

3M™ Cold Shrink Silicone Rubber 3/C Cable Breakout Boots 8560 Series

Product Number	UPC (054007-)	Cable Phase Shield Diameter Range mm (in.)	Cable Outer Jacket Diameter Range mm (in.)	Inner Unit Pack	Case Qty.
8561	43143	12.2-18.3 mm (0.48-0.72")	29.7-49.3 mm (1.17-1.94")	—	1/box
8562	43144	15.5-24.2 mm (0.61-0.95")	37.1-67.8 mm (1.46-2.67")	—	1/box
8563	43145	20.8-30.0 mm (0.82-1.18")	48.8-78.7 mm (1.92-3.10")	—	1/box
8564	43146	26.0-41.1 mm (1.02-1.63")	64.0-109.8 mm (2.52-4.32")	—	1/box
8565	43147	27.7-49.3 mm (1.09-1.94")	66.1-119.4 mm (2.60-4.70")	—	1/box
8566	57174*	29.8-47.9 mm (1.17-1.89")	80.7-140.2 mm (3.18-5.52")	—	1/box

* UPC prefix 051128-

3M™ 3/C Phase Rejacketing Sleeve Selection Guide—Based on Diameter Range and Cable Conductor Size

Product Number	UPC (054007-)	Size (feet)	Metallic Shield Diameter Range mm (in.)	3.3 kV (mm) IEC	3.3 kV (mm) JIS	5.0 kV (AWG) AEIC	6.6 kV (mm) IEC	6.6 kV (mm) JIS	8.0 kV (AWG) (AEIC)	Inner Unit Pack	Case Qty.
RJS-1-4FT	43098	4'	10.9-15.2 mm (0.43-0.60")	16-35	8-22	8-2	16-25	8-10	6-4	—	10
RJS-1-1FT	43099	10'	10.9-15.2 mm (0.43-0.60")	16-35	8-22	8-2	16-25	8-10	6-4	—	1
RJS-2-4FT	43100	4'	15.2-20.3 mm (0.60-0.80")	50-95	38-60	1-3/0	35-70	14-38	2-2/0	—	10
RJS-2-10FT	43101	10'	15.2-20.3 mm (0.60-0.80")	50-95	38-60	1-3/0	35-70	14-38	2-2/0	—	1
RJS-3-4FT	43102	4'	20.3-26.0 mm (0.80-1.02")	120-185	100-150	4/0-400	95-150	60-100	3/0-350	—	10
RJS-3-10FT	43103	10'	20.3-26.0 mm (0.80-1.02")	120-185	100-150	4/0-400	95-150	60-100	3/0-350	—	1
RJS-4-4FT	43104	4'	25.9-32.4 mm (1.02-1.28")	240-300	200-250	500-750	185-300	150-250	400-600	—	10
RJS-4-10-FT	43105	10'	25.9-32.4 mm (1.02-1.28")	240-300	200-250	500-750	185-300	150-250	400-600	—	1
RJS-5-4FT	43106	4'	32.5-41.1 mm (1.28-1.62")	—	300-325	800-1000	—	300-325	750-1000	—	10
RJS-5-10FT	43107	10'	32.5-41.1 mm (1.28-1.62")	—	300-325	800-1000	—	300-325	750-1000	—	1

3M™ 3/C Phase Rejacketing Sleeve Selection Guide—Based on Diameter Range and Cable Conductor Size

Product Number	UPC (054007-)	Size (feet)	Metallic Shield Diameter Range mm (in.)	10 kV (mm) IEC	15 kV (AWG) AEIC	20 kV (mm) IEC	25 kV (AWG) AEIC	30 kV (mm) IEC	35 kV (AWG) AEIC	Inner Unit Pack	Case Qty.
RJS-1-4FT	43098	4'	10.9-15.2 mm (0.43-0.60")	—	—	—	—	—	—	—	10
RJS-1-10FT	43099	10'	10.9-15.2 mm (0.43-0.60")	—	—	—	—	—	—	—	1
RJS-2-4FT	43100	4'	15.2-20.3 mm (0.60-0.80")	10-50	2-1	—	—	—	—	—	10
RJS-2-10FT	43101	10'	15.2-20.3 mm (0.60-0.80")	10-50	2-1	—	—	—	—	—	1
RJS-3-4FT	43102	4'	20.3-26.0 mm (0.80-1.02")	70-150	1/0-4/0	25-70	2-1/0	—	—	—	10
RJS-3-10FT	43103	10'	20.3-26.0 mm (0.80-1.02")	70-150	1/0-4/0	25-70	2-1/0	—	—	—	1
RJS-4-4FT	43104	4'	25.9-32.4 mm (1.02-1.28")	185-300	250-450	95-185	2/0-250	35-70	1/0-3/0	—	10
RJS-4-10FT	43105	10'	25.9-32.4 mm (1.02-1.28")	185-300	250-450	95-185	2/0-250	35-70	1/0-3/0	—	1
RJS-5-4FT	43106	4'	32.5-41.1 mm (1.28-1.62")	—	500-750	240-300	300-500	95-240	4/0-500	—	10
RJS-5-10FT	43107	10'	32.5-41.1 mm (1.28-1.62")	—	500-750	240-300	300-500	95-240	4/0-500	—	1

3M™ 3/C Phase Rejacketing Kits RJK Kits for Converting 3/C Cable to Three 1/C Cables

Indoor/ Outdoor Kits	Indoor Kits	Cable Metallic Shield Diameter Range	5 kV	8 kV	15 kV	25/28 kV
RJK-1	RJS-2/3	0.60-0.80	1-3/0	2-2/0	1-2/0	
RJK-2	RJS-3/3	0.80-1.02	4/0-400	3/0-30	1/0-4/0	2-1/0
RJK-3	RJS-4/3	1.02-1.28	500-750	400-600	250-450	2/0-250
RJK-4	RJS-5/3	1.28-1.62	800-1000	750-1000	500-750	300-500

Kit Contents

- 3M Cold Shrink breakout boot, 3M Cold Slip rejacketing sleeves (3 four-foot lengths), provision to externally ground at breakout boot
- 3M Cold Slip rejacketing sleeves (3 four-foot lengths)

Cold Slip

3M Cold slip re-jacketing sleeves incorporate an inner-expandable polyester braid designed to reduce sliding friction and deliver the sleeve quickly onto the cable.

Cold Shrink

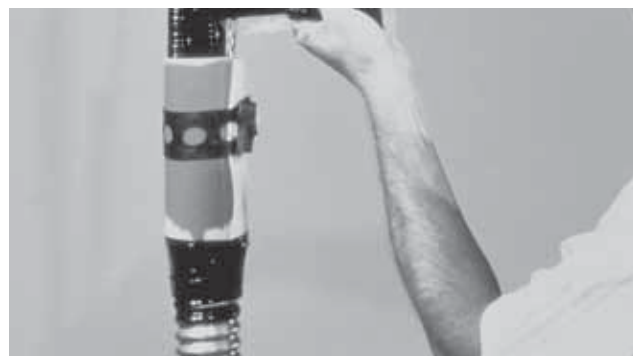
3M Cold Shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied pre-stretched on a removable core for efficiency and ease of installation. All splices are pre-tested in the factory.

3M™ Sheath Seal Kits for Multiconductor Cable

3M offers three types of sheath sealing or breakout kits: poured resin, cold shrink and heat shrink. 3M offers two types of heat shrink cable sealing, caps and a variety of grounding hardware.

3M™ Sheath Seal Kits 5831 and 5832

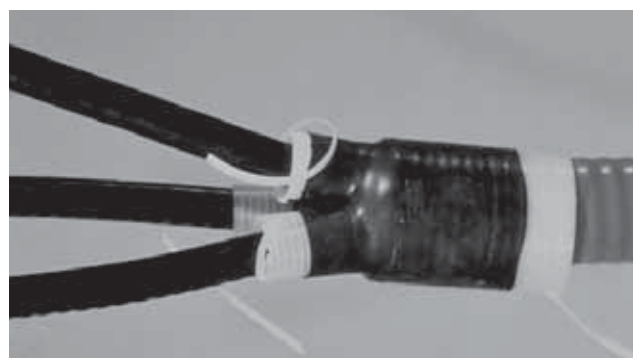
3M Sheath Seal Kits 5831 and 5832 are designed to seal the sheath area for multiconductor cables with or without ground wires. They will handle copper or aluminum cables from #2 AWG through 500 kcmil (35-250 mm²). For kit contents and sizing, see chart below. Each kit makes one seal.



3M™ Sheath Seal Kits 5831 and 5832

3M™ Cold Shrink Sheath Seal Kits 5841 and 5842

3M Cold Shrink Sheath Seal Kits 5841 and 5842 are designed to seal the sheath area for three conductor cables without ground wires. They will handle copper or aluminum cable from #2 AWG through 500 kcmil (35-250 mm²). No heat is required when using these kits. For kit contents and sizing, see chart below. Each kit makes one seal.



3M™ Cold Shrink Sheath Seal Kits 5841 and 5842

Specifications for 3M Sheath Seal Kits

Specifications	5831	5832	5841	5842
Conductor Size	2-3/0 AWG (35-80 mm ²)	4/0 AWG-500 kcmil (120-250 mm ²)	2-4/0 AWG (35-100 mm ²)	4/0 AWG-500 kcmil (120-250 mm ²)
Maximum Jacket or Armor O.D. Range	2.6" (66 mm)	3.75" (95,2 mm)	—	—
Conductor Insulation O.D. Range	N/A	N/A	0.30-1.18" (8-30 mm)	0.77-1.38" (20-35 mm)
Cable Jacket Range	—	—	1.20-1.90" (30-48 mm)	1.80-3.10" (46-79 mm)

KIT COMPONENTS:

Molded Sheath Seal Body	—	—	1	1
Wraparound Mold Body	1	1	—	—
3M™ ScotchCast™ 2130	1	1	—	—
Abrasive Cloth	1	1	—	—
Scotch® Vinyl Electrical Tape Super 33+	1	1	—	—
Scotch® Linerless Rubber Splice Tape 130C	1	1	—	—
3M Scotchfil™ Electrical Insulation Putty	1	1	—	—
Instructions	1	1	1	1

Note: Each kit makes one seal.

Ordering Information for 3M Sheath Seal Kits

Ordering Information	5831	5832	5841	5842
UPC (054007-)	12280	12281	12291	12292
Case Qty.	1 kit	1 kit	1 kit	1 kit

The final determining factor for the 5831 and 5832 is the conductor insulation O.D. and the cable jacket O.D.

The final determining factor for the 5841 and 5842 is the maximum jacket or armor diameter.

Note: Each kit makes one seal.

3M™ Heat Shrinkable Cable Breakout Boots

3M Heat Shrinkable HDBB Cable Breakout Boots are designed for dependable insulating and sealing of cable breakouts in multiconductor armored or sheathed cables and conduit ends. 3M HDBB boots are made from flame retardant, cross-linked polyolefin and meet the material requirements of MIL-I-81765-1. The boots are designed to provide excellent electrical and mechanical protection and are supplied with an internal coating of adhesive for reliable environmental sealing.



3M™ Heat Shrinkable Cable Breakout Boots

Specifications and Ordering Information for 3M™ Heat Shrinkable Cable Breakout Boots




Product Number	Cross Section	UPC (054007-)	Cable Entry End (Max. to Min.)	Conductor Legs (Max. to Min.)	Case Qty.
HDBB-205-1-250		58793	0.80-0.37" (20,32-9,40 mm)	0.33-0.11" (8,38-2,79 mm)	1 each
HDBB-210-1-250		35992*	1.20-0.60" (30,38-15,24 mm)	0.50-0.17" (12,70-4,32 mm)	1 each
HDBB-220-1-250		46654**	1.90-0.90" (48,26-22,86 mm)	0.75-0.30" (19,05-7,62 mm)	1 each
HDBB-230-1-250		35993*	3.00-1.50" (76,20-38,10 mm)	1.45-0.50" (38,10-12,70 mm)	1 each
HDBB-310-1-250		35994*	0.90-0.36" (2,86-9,14 mm)	0.33-0.12" (8,38-3,05 mm)	1 each
HDBB-320-1-250		35995*	1.20-0.50" (30,38-12,70 mm)	0.50-0.16" (12,70-4,06 mm)	1 each
HDBB-321-1-250		35996*	1.50-0.69" (38,10-17,53 mm)	0.65-0.18" (16,51-4,57 mm)	1 each
HDBB-325-1-250		35997*	1.70-0.90" (43,18-22,86 mm)	0.82-0.30" (20,83-7,62 mm)	1 each
HDBB-335-1-250		03409*	2.40-1.40" (60,96-35,56 mm)	1.25-0.50" (31,75-12,70 mm)	1 each
HDBB-340-1-250		35998*	3.20-2.00" (81,28-50,80 mm)	1.45-0.75" (38,10-19,05 mm)	1 each
HDBB-345-1-250		58794	4.90-2.32" (124,46-5,93 mm)	2.00-1.00" (50,80-25,40 mm)	1 each

*UPC prefix 051135-

**UPC prefix 051138-

Note: 3M Breakout Boots are flame retardant and supplied with a factory-applied sealant. Unlined boots are available on special order. All boots are black in color. Standard package is one and multiples of one.

Specifications and Ordering Information for 3M™ Heat Shrinkable Cable Breakout Boots

Product Number	Cross Section	UPC (054007-)	Cable Entry End (Max. to Min.)	Conductor Legs (Max. to Min.)	Case Qty.
HDBB-405-1-250		58795	0.90-0.43" (22,86-10,92 mm)	0.28-0.11" (7,11-2,79 mm)	1 each
HDBB-410-1-250		35999*	1.25-0.80" (31,75-20,32 mm)	0.50-0.19" (1,70-4,83 mm)	1 each
HDBB-415-1-250		58855	1.75-0.98" (43,18-24,89 mm)	0.79-0.28" (20,07-7,11 mm)	1 each
HDBB-420-1-250		36000*	2.35-1.00" (59,69-2,4 mm)	1.00-0.35" (25,40-8,89 mm)	1 each
HDBB-425-1-250		58797	2.65-1.40" (67,31-35,56 mm)	1.20-0.53" (30,48-13,46 mm)	1 each
HDBB-430-1-250		58798	5.25-3.00" (133,35-76,20 mm)	1.35-0.55" (34,29-13,97 mm)	1 each
HDBB-505-1-250			46648**	2.36-0.96" (59,94-24,38 mm)	1.18-0.29" (70,73-7,36 mm)
HDBB-605-1-250		36001*	2.39-1.45" (60,71-38,10 mm)	0.80-0.35" (20,32-8,89 mm)	1 each

*UPC prefix 051135-

**UPC prefix 051138-

Note: 3M Breakout Boots are flame retardant and supplied with a factory-applied sealant. Unlined boots are available on special order. All boots are black in color. Standard package is one and multiples of one.

PRODUCT REFERRAL GENERATOR

Insulating	pg. 415
– Heat Shrinkable Tubing	
Sealing	
– Cold Shrink End Caps.....	pg. 398

3M™ Cold Shrink End Caps EC-Series

The 3M Cold Shrink End Caps EC-Series are designed to environmentally seal and mechanically protect exposed cable ends using no tools, mastics or tapes. Regardless of the cable type or manufacturer, it takes only four different end-caps to fit cable size ranges from 1.46" to 3.32" (11,6-84,3 mm), reducing the need for additional inventory to cover all cable sizes. The 3M Cold Shrink End Caps EC-Series protects cables, pipes and other cylindrical objects from exposure to moisture, contamination, corrosion, ozone, ultra-violet radiation, physical contact and other environmental hazards.

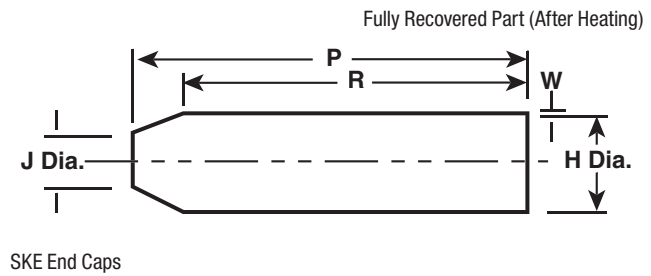
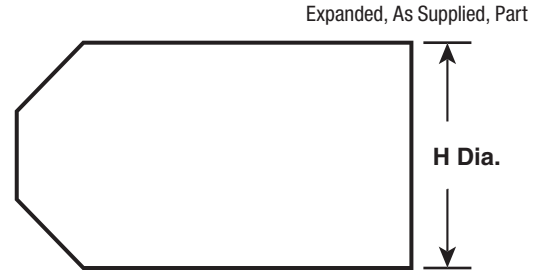
3M™ Heavy-Duty End Caps SKE

3M Heat Shrinkable End Caps are typically used to seal cable ends and are designed to provide moisture, mechanical and environmental protection. 3M SKE end caps are for heavy-duty applications.

3M SKE end caps are manufactured from semi-rigid flame retardant, cross-linked polyolefin. They are supplied with

a factory applied adhesive lining for reliable environmental sealing. Six different sizes accommodate a broad range of cable diameters.

Standard Color: Black.



Specifications and Ordering Information for 3M Cold Shrink End Caps EC-Series

Product Number	UPC (051138-)	Use Range Inches (mm)	Inner Unit Pack
EC-1	52440	0.46-0.82" (11,6-20,9 mm)	10/box
EC-2	52441	0.63-1.18" (15,9-30,1 mm)	10/box
EC-3	52442	1.02-1.94" (26,0-49,2 mm)	10/box
EC-4	52443	1.79-3.32" (45,5-84,3 mm)	10/box

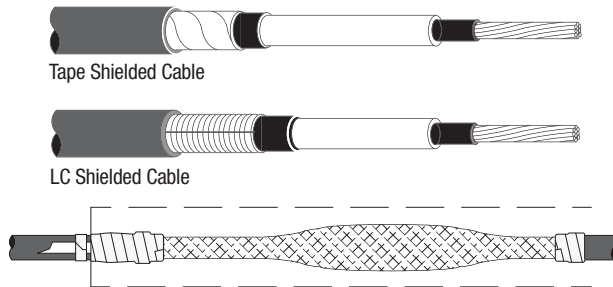
Specifications and Ordering Information for 3M Heavy-Duty End Caps SKE

Product Number	UPC (051138-)	H Dia. Min. X	Max. R	J. Dia. Max. R	P ±10% R	R ±10% R	W ±20% R	For Cable Diameter	Case Qty.
SKE 4/10	48153	0.39 (10,0)	0.16 (4,0)	0.12 (3,0)	1.32 (33,5)	1.18 (30,0)	0.08 (2,0)	0.16-0.31 (4-8)	1000 each
SKE 8/20	48154	0.79 (20,0)	0.30 (7,5)	0.26 (6,5)	2.18 (55,3)	1.97 (50,0)	0.09 (2,3)	0.31-0.43 (8-11)	250 each
SKE 15/40	48155	1.57 (40,0)	0.59 (15,0)	0.41 (10,5)	3.54 (90,0)	3.15 (80,0)	0.12 (3,0)	0.59-1.26 (15-32)	60 each
SKE 25/63	48156	2.48 (63,0)	0.98 (25,0)	0.63 (16,0)	5.63 (143,3)	5.12 (130,0)	0.13 (3,3)	1.00-1.97 (25-50)	60 each
SKE 30/76	48157	2.99 (76,0)	1.18 (30,0)	0.67 (17,0)	6.22 (158,0)	5.91 (150,0)	0,16 (4,0)	1.18-2.36 (30-60)	40 each
SKE 45/100	48158	3.94 (100,0)	1.77 (45,0)	1.02 (26,0)	6.40 (162,5)	5.50 (140,0)	0.16 (4,0)	1.77-3.15 (45-80)	30 each

NOTES:

- All dimensions in both inches and metric. All angles in degrees.
- Dimensions in table: X= Expanded (Minimum); R= Recovered (Maximum)
- Color: Black

3M™ Hi-Amp Splice Grounding Accessory Kit SG-2 and SG-3 for 15 kV, 25 kV and 35 kV



3M Hi-Amp Splice Grounding Accessory Kit SG-2 and SG-3 are designed to accommodate the shielding and grounding of inline splices made on LC, heavy-duty tape and conventional tape shielded power cables. The SG-2 and SG-3 designs provide a fault current capacity of 15,000 Amps for 15 cycles on 15, 25 and 35 kV class cables.

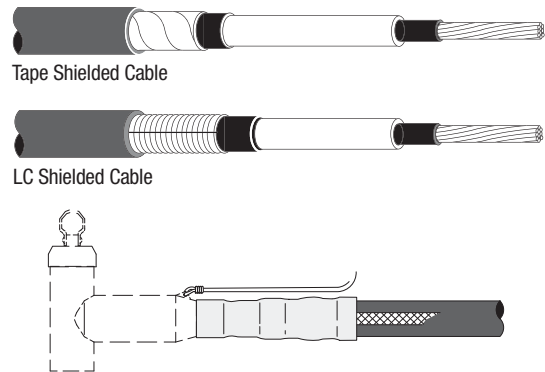
The 3M kits SG-2 and SG-3 were designed to accommodate all 3M Quick Splice bodies as well as most other rubber-molded inline splices currently used in the electrical power distribution industry.

The 3M copper screen sleeves SG-2 and SG-3 are applied over molded rubber splices on cables with shield diameters ranging from 1.25" (32,0 mm) to 2.25" (57,2 mm). In most cases this will include conductor sizes between 350 kcmil and 1000 kcmil and voltage classes of 15 kV through 35 kV. The 3M copper screen sleeves SG-2 and SG-3 and the preformed ground connection braid have a capacity greater than that of #4 AWG copper wire and are fault current rated at 15,000 amps for 15 cycles. The 3M Kit SG-3 has a larger CMA (greater than 2 AWG) copper screen sleeve and two constant force springs per end. This provides additional neutral current capacity.

Following SG-2 and SG-3 component installation, 3M Cold Shrink SJ-1A, SJ-2A, SJ-3A, heat shrink HSJ series or Scotch® Rubber Mastic and Vinyl Tape systems are the recommended choices for sealing and re-jacketing the installed, shielded splice. Each kit provides shielding and grounding for one splice.

Refer to the ordering table on page 401 for cable and accommodation. Final determining factor, for cables not specified, is a shield diameter range from 1.25" (32,0 mm) minimum through 2.25" (57,2 mm) maximum.

3M™ Hi-Amp Accessory Grounding Kit 8473 for 15 kV, 25 kV and 35 kV



3M Hi-Amp Accessory Grounding Kit 8473 is designed to accommodate the grounding of accessories installed on LC, heavy-duty tape and conventional tape-shielded power cables. The 3M Grounding Kit 8473 design provides a fault current capacity of 15,000 Amps for 15 cycles on 15 kV, 25 kV and 35 kV class cables.

Product application range for the 3M kit 8473 includes cable sizes from 350 kcmil through 1000 kcmil in 15 kV through 35 kV voltage classes as indicated in the table on page 401.

The kit 8473 was designed to be used with 600-Amp elbows and other accessories where cable jacket-to-accessory sealing and high-ampacity grounding is desired.

The 3M Grounding Kit 8473 preformed ground braid has a fault current capacity of 15,000 Amps for 15 cycles with an equivalent cross-sectional area greater than #4 AWG copper wire. Each kit provides grounding and sealing for one accessory.

Refer to the ordering table on page 401 for cable accommodation. Final determining factor, for cables not specified, is a shield diameter range from 1.25" (32,0 mm) minimum through 2.25" (57,2 mm) maximum.

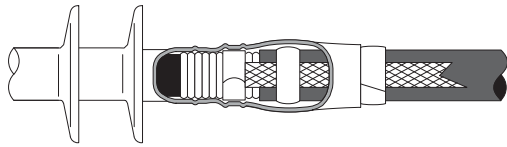
3M™ Hi-Amp Grounding Accessory Kit GSHA-8 QT-II for 15 kV, 25 kV and 35 kV



Tape Shielded Cable



LC Shielded Cable



3M Hi-Amp Grounding Accessory Kit GSHA-8 QT II is designed to accommodate the grounding of terminations made on LC, heavy-duty tape and conventional tape-shielded power cables. The 3M Kit GSHA-8 QT II design provides a fault current capacity of 15,000 Amps for 15 cycles on 15 kV, 25 kV and 35 kV class cables.

The 3M Kit GSHA-8 is designed to be used in conjunction with 3M QT-II terminations in applications where high-ampacity grounding is desired.

The 3M product GSHA-8 will accommodate cable sizes ranging from 350 kcmil through 1000 kcmil and voltage

classes of 15 kV through 35 kV. The preformed ground braid contained in the 3M Kit GSHA-8 has a fault current capacity of 15,000 Amps for 15 cycles. Each kit provides shielding and grounding for one termination.

Refer to the ordering table on page 401 for cable information. Final determining factor, for cables not specified, is a shield diameter range from 1.25" (32,0 mm).

3M™ Cable Grounding Kits 2252 and 2253



Jacketed Concentric Neutral Cable (JCN)



The 3M Cable Grounding Kits 2252 and 2253 provide a simple, reliable and secure method for grounding and resealing of the jacket of direct buried distribution cables. These kits are designed for use with jacketed concentric neutral (JCN) power cables ranging from 2 to 4/0 AWG, rated through 35 kV. A common kit application is for grounding a primary neutral at least every 1320 feet (1/4 mile) per Rural Utilities Service (RUS) Bulletin 83-1.

Specifications for 3M™ Sealing and Grounding Products 15 kV, 25 kV and 35 kV

Specifications	SG-2	SG-3	8473	GSHA-8	2252	2253	2254
CABLE TYPE	Tape Shielded Cable, LC Shielded Cable See pg. 399-400 for cable type illustration.				Jacketed Concentric Neutral Cable (JCN) See pg. 400 for cable type illustration.		
	Each kit provides grounding and sealing for 1 splice or termination				Each kit provides 1 cable ground		
Shield O.D. Range	1.25-2.25" (132,0-52,2 mm)	1.25-2.25" (132,0-52,2 mm)	1.25-2.25" (132,0-52,2 mm)	1.25-2.25" (132,0-52,2 mm)	—	—	—
Conductor Range	350-1000 kcmil	350-1000 kcmil	350-1000 kcmil	350-1000 kcmil	2-4/0 AWG	250-500 kcmil	500-1000 kcmil
Circular Mil Area	61,000	72,000	—	—	—	—	—
KIT COMPONENTS:							
PST Cold Shrink Tube	—	—	1	—	—	—	—
Roll of Scotch® 13 Semiconducting Tape	—	—	—	1	—	—	—
Roll of Scotch 2228 Rubber Mastic Tape	—	—	—	—	1	1	1
Roll of Scotch Super 33+ Vinyl Electrical Tape	—	—	—	—	1	1	1
Tin-Plated Copper "C" Connector	—	—	—	—	1	1	1

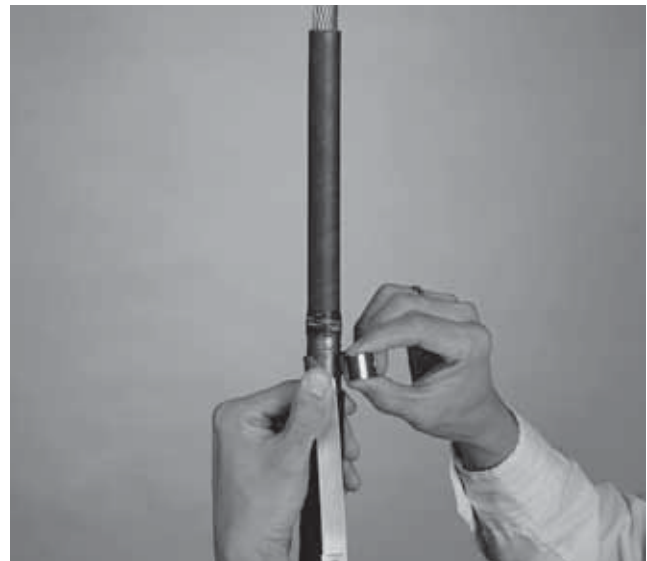
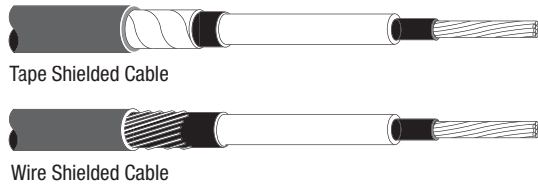
Specifications for 3M™ Sealing and Grounding Products 15 kV, 25 kV and 35 kV

Specifications	SG-2	SG-3	8473	GSHA-8	2252	2253	2254
10" (25,4 cm) Length of Tin Plated Copper Braid	—	—	—	—	1	1	1
Copper Screen Sleeve	1	1	—	—	—	—	—
Mastic Seal Strip	3	3	1	1	1	1	1
Constant-Force Spring	2	4	1	1	1	1	1
Preformed Ground Braid	1	1	1	1	—	—	—
Instructions	1	1	1	1	1	1	1
Ordering Information							
UPC (054007-)	50041	41511	50043	50042	08335	55648*	56939*
Case Qty.	10 each	10 each	10 each	10 each	10 each	10 each	10 each

* UPC prefix 051128-

3M™ Ground Strap Assembly GS Series

3M Ground Strap Assembly Kit GS Series is designed for grounding tape- and wire-shielded power cables. Check that cable conductor size matches the ground strap assembly shown in the ordering table below.



Specifications and Ordering Information for 3M Ground Strap Assembly GS Series

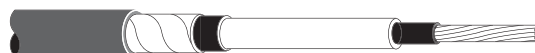
Specifications	GS-1	GS-2	GS-3
CABLE TYPE		Jacketed URD Cable See above for cable type illustration.	
Strap Length x Width	4.75" x 0.31"	7.12" x 0.62"	6.87" x 0.62"
VOLTAGE AND INSULATION THICKNESS		Conductor AWG Size Range (mm ²)	
5 kV-100% 90 mils	8-3/0 (10-80 mm ²)	2/0-750 (70-325 mm ²)	600-2000 (325-1000 mm ²)
5 kV-133% 8 kV -100% 115 mils	8-1/0 (10-50 mm ²)	1/0-750 (60-325 mm ²)	500-2000 (300-1000 mm ²)
8 kV-133% 140 mils	8-1 (10-38 mm ²)	1-600 (50-300 mm ²)	400-1750 (240-850 mm ²)
15 kV- 100% 175 mils	—	2-500 (35-250 mm ²)	350-1750 (180-850 mm ²)
15 kV- 133% 220 mils	—	2-350 (35-180 mm ²)	250-1500 (125-725 mm ²)
25 kV 260 mils	—	2-400 (35-200 mm ²)	3/0-1000 (95-500 mm ²)
35 kV 345 mils	—	1/0-300 (60-150 mm ²)	1/0-750 (60-325 mm ²)
Ordering Information			
UPC (054007-)	33976	33977	33978
Case Qty.	9 each	9 each	9 each

Product Information for 3M™ Constant Force Springs

Product Number	CFS-0.47/0.78	CFS-0.80/1.50	CFS-1.00/2.20	CFS-1.50-3.00	CFS-1.50/3.00W	CFS-1.80/4.00
APPLICATION RANGE						
Min. inches (mm)	0.50" (12,7 mm)	0.80" (20,3 mm)	1.00" (25,4 mm)	1.50" (38,1 mm)	1.50" (38,1 mm)	1.80" (45,7 mm)
Max. inches (mm)	0.75" (19,0 mm)	1.50" (38,1 mm)	2.20" (56,0 mm)	3.00" (76,2 mm)	3.00" (76,2 mm)	4.00" (101,6 mm)
Width inches (mm)	0.500" (12,7 mm)	0.625" (15,9 mm)	0.625" (15,9 mm)	0.625" (15,9 mm)	0.750" (19,0 mm)	0.625" (15,9 mm)
STD. Carton	30	30	30	9	9	9
UPC (054007-)	42372	42374	42375	42376	42378	42379

3M™ Shield Grounding Accessory Kits GSK

3M Shield Grounding Accessory Kits GSK are used to convert CN/JCN termination kits for use on shielded cables minimum through 2.25" (57,2 mm) maximum.



Tape Shielded Cable



LC Shielded Cable

Specifications and Ordering Information for 3M™ QT-II Termination Kit

Product Number	UPC (051128-)	QT-II Term. Kit Number	5 kV (90 mil)	5/8 kV (115 mil)	8 kV (140 mil)	15 kV (175 mil)	15 kV (220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-22	53087	5641	3/0-300	2/0-250	1/0-4/0	2-3/0	2-1/0	—	—
		5651	3/0-300	2/0-250	1/0-4/0	2-3/0	2-1/0	2-1	—
GSK-34	53088	5642	350-750	350-750	250-600	3/0-500	2/0-350	—	—
		5652	350-750	350-750	250-600	3/0-500	2/0-350	1/0-250	—
		5646	350-750	350-750	250-600	3/0-500	2/0-350	1/0-250	2-3/0
GSK-56	53089	5643	750-1500	750-1250	600-1000	500-1000	350-500	—	—
		5644	1000-2000	1000-2000	800-1750	750-1750	600-1500	—	—
		5653	750-1500	750-1250	600-1000	500-1000	350-500	300-500	—
		5654	1000-2000	1000-2000	800-1750	750-1750	600-1500	600-1250	—
		5647	750-1500	750-1250	600-1000	500-1000	350-500	300-500	4/0-400
		5648	1000-2000	1000-2000	800-1750	750-1750	600-1500	600-1250	500-1000

Specifications and Ordering Information for 3M™ QT-III Termination Kit

Product Number	UPC (051128-)	QT-III Term. Kit Number	5 kV (90 mil)	5/8 kV (115 mil)	15 kV (175/220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-22	53087	7642-T-110	4/0-400	3/0-300	2-4/0	—	—
		7642-S-2	4/0-400	3/0-300	2-4/0	—	—
		7652-S-4	4/0-400	3/0-300	2-4/0	2-1/0	—
GSK-34	53088	7653-S-4	300-500	250-500	2/0-300	2-4/0	—
		7654-S-4	500-750	350-700	4/0-500	2/0-250	—
		7644-T-110	500-750	350-700	4/0-500	—	—
		7653-T-150	300-500	250-500	2/0-300	2-4/0	2-2/0
		7663-S-8	300-500	250-500	2/0-300	2-4/0	2-2/0
		7664-S-8	500-750	350-700	4/0-500	2/0-250	2-4/0

Specifications and Ordering Information for 3M™ QT-III Termination Kit






Product Number	UPC (051128-)	QT-III Term. Kit Number	5 kV (90 mil)	5/8 kV (115 mil)	15 kV (175/220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-56	53089	7655-S-4	700-1500	600-1250	500-1000	250-800	—
		7656-S-4	1750-2000	1500-2000	1250-2000	900-1750	—
		7645-T-110	700-1500	600-1250	500-1000	—	—
		7646-T-110	1750-2000	1500-2000	1250-2000	—	—
		7655-T-150	700-1500	600-1250	500-1000	250-800	3/0-600
		7656-T-150	1750-2000	1500-2000	1250-2000	900-1750	700-1500
		7665-S-8	700-1500	600-1250	500-1000	250-800	3/0-600
		7666-S-8	1750-2000	1500-2000	1250-2000	900-1750	700-1500

Insulating and Sealing Compounds

3M™ Scotchcast™ Insulating and Sealing Compounds are compatible with most cable insulations and jackets and accommodate many splices, including odd-shaped connectors. These compounds feature a high degree of mechanical strength and provide moisture resistance for above ground and buried applications.



Specifications for 3M™ Scotchcast Insulating and Sealing Compounds

	Product Name	Description	Gel Time @ 73° (23°C)	Energize Time	Used in These 3M Kits	Maximum Operating Temperature	Color
	Scotchcast Electrical Insulating Resin 4	PERMANENT Rigid, hard material Insulating up to 8 kV Jacketing up to 69 kV epoxy	16 mins.	45 mins.*	82-A Series 82-B1 85-14CP 90-B1	194°F (90°C) continuous 266°F (130°C) overload 482°F (250°C) intermittent	Black
	Scotchcast Electrical Insulating and Sealing Compound 2104	PERMANENT Semi-flexible 1000 volts max. Polyurethane	18 mins.	Immediately	72-N 85 Series	194°F (90°C) continuous 266°F (130°C) overload	Dark Green
	Scotchcast 2123 Re-enterrable Electrical Insulating Resin	RE-ENTERABLE Flexible polybutadiene	62 mins.	Immediately	78-R Series	194°F (90°C) continuous 266°F (130°C) overload	Amber, Transparent
	Scotchcast Flame Retardant Compound 2130	FLAME RETARDANT Semi-flexible 5000 volts max. Permanent urethane MSHA P-142-5	15 mins.	Immediately	5750, 5760, 5831, 5832, 82-F1, 82-F2, 82-BF1, M-20, -30, -40	194°F (90°C) continuous 266°F (130°C) overload	Black
	Scotchcast Wet-Niche Potting Compound 2135	FLEXIBLE Wet niche putty Urethane	15 mins.	Immediately	—	UL Listed 2L02 220°F (105°C)	Black

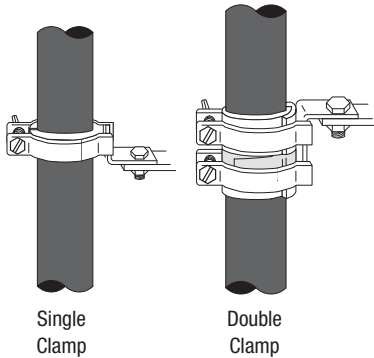
*At 73°F (23°C) and cooler temperatures, resin will cure slower. Do not energize until resin has cooled and solidified.

Specifications and Ordering Information for 3M™ Scotchcast™ Resins

Product Number	UPC (054007-)	Size/Type of Package	Inner Unit Pack	Case Qty.
3M SCOTCHCAST ELECTRICAL INSULATING RESIN 4				
4-A	43165	A/3.2 oz. (90 g) 4.8 cu. in. (78,6 cu. cm)	—	10 containers
4-B	43166	B/7.4 oz. (209 g) 11.2 cu. in. (183,5 cu. cm)	—	10 containers
4-C	43167	C/14.7 oz. (418 g) 22.3 cu. in. (365,4 cu. cm)	—	10 containers
4-D	04206	D/22.2 oz. (630 g) 33.6 cu. in. (550,6 cu. cm)	—	10 containers
4-E	04207	E/10.4 oz. (294 g) 15.7 cu. in. (257,2 cu. cm)	—	10 containers
3M SCOTCHCAST ELECTRICAL INSULATING AND SEALING COMPOUND 2104				
2104-A	31189	A/3.46 oz. (98 g) 5.7 cu. in. (93,4 cu. cm)	cont.	10 each
2104-B	31382	B/7.4 oz. (210 g) 12.6 cu. in. (206,4 cu. cm)	cont.	10 containers
2104-C	31383	C/14.82 oz. (420 g) 25.4 cu. in. (416,2 cu. cm)	1/box	10 containers
2104-D	11849	D/23.8 oz. (675 g) 40.8 cu. in. (668,5 cu. cm)	1/box	10 each
3M SCOTCHCAST RE-ENTERABLE ELECTRICAL INSULATING COMPOUND 2123				
2123-C	55120*	C/12.3 oz. (350 g) 23.7 cu. in. (338,3 cu. cm)	1/box	10 each
2123-D	55121*	D/21.2 oz. (600 g) 40.6 cu. in. (665,3 cu. cm)	1/box	10 each
3M SCOTCHCAST FLAME RETARDANT COMPOUND 2130				
2130-B	31401	B/7.6 oz. (216 g) 10.7 cu. in. (175,3 cu. cm)	1/box	10 each
2130-C	31402	C/21.7 oz. (616 g) 30.5 cu. in. (499,8 cu. cm)	1/box	10 each
2130 Part A	50237	A/5 gal. (18,93 L)		1 pail
2130 Part B	50238	B/5 gal. (18,93 L)		1 pail
3M SCOTCHCAST WET-NICHE POTTING 2135				
2135	69798	F/1.83 oz. (52,5 g) 3.3 cu. in. (54,0 cu. cm)	1/box	10 each
3M SCOTCHCAST CABLE REPAIR COMPOUND 2135M				
2135M	50433	F/6.9 oz. (195 g) 12.25 cu. in. (13,12 cu. cm)	—	10 each
*UPC prefix 051128-				

Mounting Brackets

3M™ Mounting Brackets MB and MBS Series



The 3M Mounting Brackets MB and MBS Series have been designed to mount 3M molded rubber terminations. These brackets are attached to the cable just below the termination. This provides a tongue

that can then be attached to an MB-1 mounting bracket or to any other support. The 3M Brackets MB Series are made from galvanized steel. The 3M Brackets MBS Series are made from stainless steel to provide additional corrosion protection in highly contaminated environments.



3M™ Cross-Arm Mounting Bracket MB-1

3M Cross-Arm Mounting Bracket MB-1 is a cross-arm bracket for use in holding terminated cable. The MB-1 is ideal to use when ordering the MB or MBS termination mounting brackets featured on this page.

Specifications and Ordering Information for 3M™ Hardware Accessories

Product Number	UPC (054007-)	Cable O.D. Range	Inner Unit Pack Qty.	Case Qty.
MB-1	11230	—	1/box	10 each
MB-3	14754	0.80-1.25" (20-32 mm)*	1/box	10 each
MB-4	14755	1.10-1.50" (28-38 mm)	1/box	10 each
MB-5**	08200	1.45-1.95" (37-50 mm)	1/box	10 each
MB-6**	08286	1.80-2.40" (46-61 mm)	1/box	10 each
MBS-4**	49685	1.10-1.70" (28-43 mm)	1/box	10 each
MBS-5**	49686	1.45-1.95" (37-50 mm)	1/box	10 each
MBS-6**	49687	1.80-2.40" (46-61 mm)	1/box	10 each

*Caution: Use cable O.D., not insulation O.D. for determining the proper size.

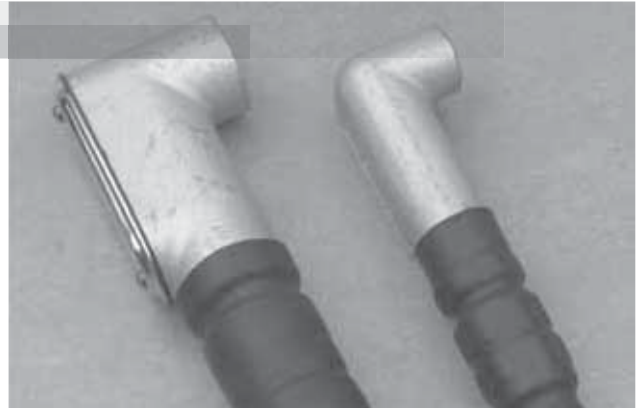
**Has double clamps.

3M™ Cold Shrink Corrosion Protection Kit CPT Series

3M Cold Shrink Corrosion Protection Kit CPT Series are designed to provide a quick and easy method for protecting bulkhead termination connectors from the corrosive influences of wet and salt-fog installation environments.

A CPT series assembly is an open-ended tubular rubber sleeve which is factory expanded and assembled onto a removable core. The core is removed after the assembly has been positioned for installation over a bulkhead terminator connector. Mastic strips are provided for sealing between NPT fitting threads and the enclosure in use (junction box, cabinet, panel board, etc.). CPT insulating sleeves are made of an EPDM rubber that contains no chlorides or sulfers. Ten kits accommodate 1/2" through 4" bulkhead connectors.

To extend the useful life of this product in applications where continuous exposure to high levels of ultra-violet radiation are expected, overwrap with Scotch® Super 33+™ Vinyl Electrical Tape or Scotch Silicone Tape 70.



Features:

- Simple installation, requires no tools
- Accommodates a wide range of bulkhead connectors
- No torches or heat required
- Good thermal stability
- Are designed to seal tight, retain its resiliency and pressure after prolonged years of aging and exposure
- Excellent wet electrical properties
- Salt spray resistant. Meets requirements of ASTM B287, in a 5% salt solution with a 3.0-3.1 pH
- Water-resistant. Meets the water seal requirements of ANSI C119.1
- Resists fungus
- Resists acids, alkalies and ozone

3M Cold Shrink Corrosion Protection Kit CPT Series Sizing Guide

Product Number (NPT Size)	UPC (054007-)	Cable O.D. Minimum in. (mm)	Connector		Inner Unit Pack	Min. Order Case Qty.
			Maximum O.D. in. (mm)	Maximum Installed Length in. (mm)		
CPT-1/2	43021	0.50" (13 mm)	1.60" (41 mm)	4.50" (114 mm)	—	10
CPT-3/4	43022	0.66" (17 mm)	1.90" (48 mm)	4.80" (122 mm)	—	10
CPT-1	43023	0.66" (17 mm)	2.20" (56 mm)	4.80" (122 mm)	—	10
CPT-1-1/4	43024	1.22" (31 mm)	2.65" (67 mm)	4.80" (122 mm)	—	10
CPT-1-1/2	43025	1.40" (36 mm)	3.00" (76 mm)	5.50" (140 mm)	—	10
CPT-2	43026	1.68" (43 mm)	3.60" (91 mm)	6.50" (165 mm)	—	10
CPT-2-1/2	43027	1.97" (50 mm)	4.30" (109 mm)	8.50" (215 mm)	—	5
CPT-3	43028	2.60" (66 mm)	5.40" (137 mm)	8.50" (215 mm)	—	5
CPT-3-1/2	43029	2.90" (74 mm)	6.00" (152 mm)	10.0" (254 mm)	—	5
CPT-4	43030	2.90" (74 mm)	6.00" (152 mm)	10.5" (267 mm)	—	5

3M™ Metal Clad Jacketed Cable Connectors — Connector Cross Reference

Trade Size (inches) (NPT Size)	Cable Jacket Range (inches)		Crouse-Hinds (TMC or TMCX)	Appleton	T & B	O-Z/Gedney
	Min.	Max.				
1/2"	0.46"	0.71"	TMCX165	TMCX6550	ST050-462 ST050-464	JMC-50-71
3/4"	0.65"	0.93"	TMCX285	TMCX8875	ST075-467 ST075-468	JMC-75-115
1"	1.10"	1.45"	TMCX3112	TMCX118100	ST100-469	JMC-100-145
1-1/4"	1.37"	1.79"	TMCX4140	TMCX140125	ST125-470 ST125-550 ST125-471	JMC-125-179
1-1/2"	1.74"	2.15"	TMCX5161	TMCX166150	ST150-472 ST150-473	JMC-150-215
2"	2.03"	2.59"	TMCX6206	TMCX206200	ST200-551 ST200-474 ST200-475 ST200-476	JMC-200-259
2-1/2"	2.47"	3.03"	TMCX7247	TMCX251250	ST250-477 ST250-478	JMC-250-303
3"	2.93"	3.61"	TMCX8302	TMCX304300	ST300-479 ST300-480 ST300-481	JMC-300-361
3-1/2"	3.55"	4.23"	TMCX9352	TMCX359350	ST350-482 ST350-483	JMC-350-423
4"	4.05"	4.73"	TMCX10402	TMCX402400	ST400-484 ST400-485	JMC-400-473

Preparation and Cleaning



3M™ Scotch-Brite™ Hand Pads 7440 Series

3M Scotch-Brite Pads make the toughest cleaning jobs easier. These pads are so versatile. They are designed to outperform steel wool, wire brushes, sandpaper and other nonwoven surface conditioning products and can be used with water or solvents. They resist tearing, splintering, shredding and loading and will never rust. All Scotch-Brite Pads measure 6" x 9" (152 x 228 mm). Blending Pads are made of a coarse mineral abrasive. General Purpose Pads are reusable—they rinse clean and are constructed of a nylon web. Ultra Fine Pads are highly conformable.

Select the Scotch-Brite Pads for your specific abrasion needs and carry them with you everywhere you work. You can use them on virtually any surface material, including all kinds of metals, plastics, composites, ceramics, porcelain, glass and rubber.



3M™ Cable Cleaning System CC Series

3M Cable Cleaning System CC Series cleans cable insulation, metal, electrical and mechanical parts. It can be used for PCB cleanup and in parts cleaners for degreasing. CC series solvent is also suitable for use on transformers, generators, motors and metal parts of all sorts. It removes surface oils, tars and heavy greases. Use of solvent on carbon-containing semiconductive surfaces such as cable insulation shields is not recommended.

CC series solvent can effectively replace 1.1.1- trichlorethane and other hazardous solvents. Neither CC series solvent nor its ingredients are presently subject to regulations that would inhibit shipping, packaging or applications.

CC-Dry contains three each 4" x 8" (102 x 203 mm) lintless non-woven pads packed in a bag. These are used for drying the common citrus cable cleaner (CC series) off of cable installation when preparing cable. The CC-2-Dry Kit contains a CC-2 Kit and three each dry lintless pads.

Specifications and Ordering Information for 3M™ Scotch-Brite Hand Pads 7440 Series

Specifications	Blending Pads 7446	General Purpose Pads 7447	Ultra Fine Pads 7448
Features	<ul style="list-style-type: none"> · Hand blending and finishing stainless steel and aluminum · Light oxide removal · Paint removal · Wood highlighting 	<ul style="list-style-type: none"> · Scuff sanding, cleaning, finishing and deburring · Use for car reconditioning — cleaning upholstery, headliners, white-wall tires, door pads and chrome · Deburring metals and ceramics · Cleaning machinery 	<ul style="list-style-type: none"> · Light duty — ideal for cosmetic cleaning and creating consistent finishes
Electrical Applications		<ul style="list-style-type: none"> · Cleaning cable jackets, insulation and conductors · Cleaning and polishing bus bar · Cleaning insulators and cable accessories · Rust removal from metal cabinets · Relay contact cleaning · Battery connections 	
Color	Gray	Maroon	Gray
Size	6 x 9" (152 x 228 mm)	6 x 9" (152 x 228 mm)	6 x 9" (152 x 228 mm)
Ordering Information			
UPC (048011-)	04051	04029	04028
Pads/Box	1	1	1
Case Qty.	1 case	1 case	1 case

Specifications and Ordering Information for 3M™ Cable Cleaning System CC Series

Specifications	CC-2	CC-Dry	CC-2-Dry	CC-3	CC-4
Description	Cable Cleaning Preparation Kit	Cable Cleaning Pads	Cable Cleaning Pads and Kit	Cable Cleaning Pad Kit	Cable Cleaning Solvent (quart bottle)
Ordering Information	CC-2	CC-Dry	CC-2-Dry	CC-3	CC-4
UPC (054007-)	49563	43415	43414	49564	49565
Case Qty.	10 each	10 kit	10 kit	10 each	4 each

Scotch® Electrician's Abrasive Roll A-3

Scotch Electrician's Abrasive Roll A-3 is a 120-grit, closed-coat aluminum oxide strip, which is nonconductive and flexible. It is packaged in a dispenser-type box.

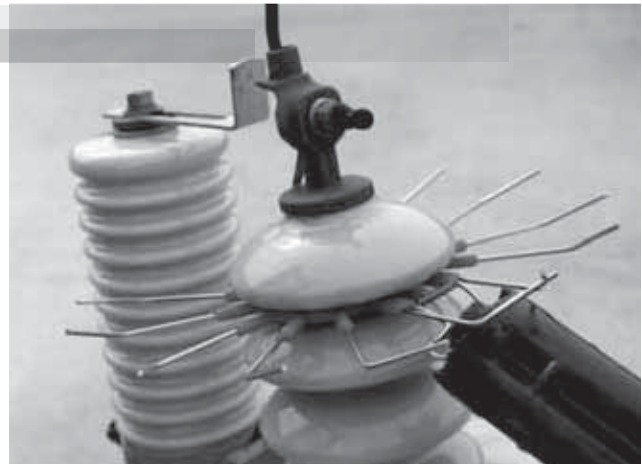


Ordering Information for Scotch® Electrician's Abrasive Roll A-3

Product Number	UPC (054007-)	Size/Type of Package	Inner Unit Pack	Case Qty.
A-3	11560	1" x yd./Grit 120J (25,4 mm x 22,7 m)	5 rls	10 rls

3M™ Electrostatic Animal Guard

3M Electrostatic Animal Guard (formerly Guthrie Guard) is a patented electrostatic barrier which attaches to energized electrical insulators/bushings rated up to 35 kV. The guard consists of rugged plastic with metal spokes radiating outward. When an animal touches the spokes, it receives an electric shock similar to those generated by electrified livestock fences. The animal is not injured and power service is not interrupted.



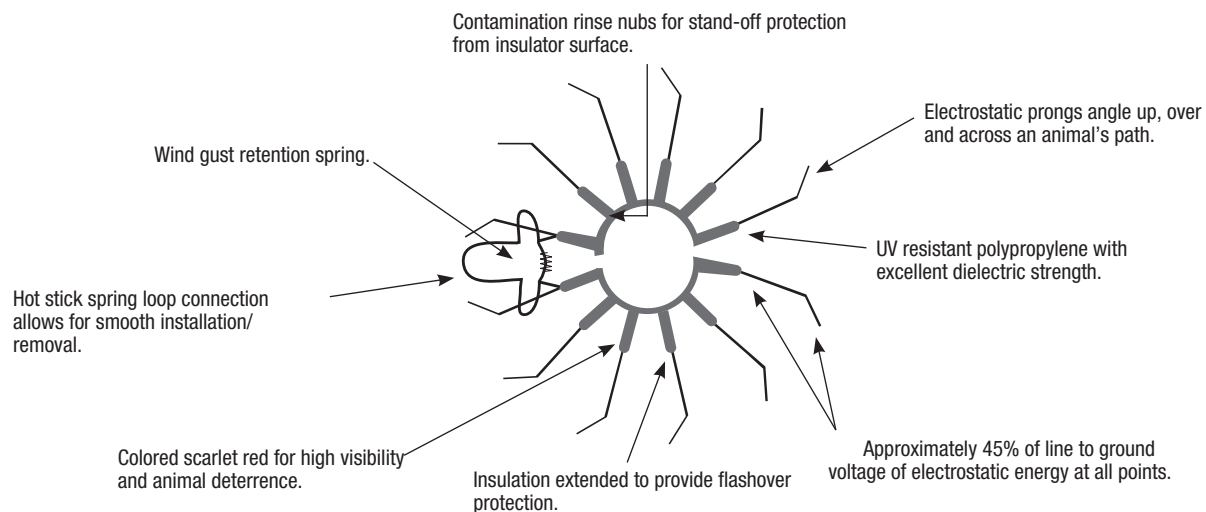
With 3M Electrostatic Animal Guard, electric utilities can minimize customer outages due to animal contact. 3M Electrostatic Animal Guard offers several advantages over other conventional cover-up devices:

- Can be installed while circuit is energized
- Maximum longevity
- Humane

3M Electrostatic Animal Guard Specifications and Ordering Information

Product Number	UPC (054007-)	Insulator Neck Diameter Range* in. (mm)
GG-7525	43128	0.75-2.5" (19,1-63,7 mm)
GG-1525	43125	1.5-2.5" (38,2-63,7 mm)
GG-2545	43126	2.5-4.5" (63,7-114,7 mm)
GG-4565	43127	4.5-6.5" (114,7-165,7 mm)

*Insulator neck diameter range is defined as the diameter of the insulator in between the skirts.



Overhead Conductor Animal Guard Cover

3M™ Conductor Covers CCI Series are extruded silicone rubber tubes designed for field installation over bare conductors to insulate them from adjacent phases, grounded equipment, and animal contact. These covers are made with a full-length longitudinal bias cut to allow for easy slip-on installation, and provide an increased creepage distance between the conductor and the outer surface of the cover.

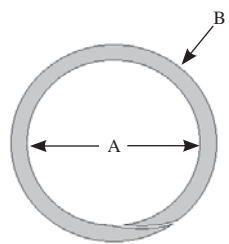
The covers are offered in two thickness sizes for covering both 15 kV and 25 kV rated conductors, and are available in ACSR conductor sizes from 2 AWG to 266 kcmil.

Features:

- Excellent UV, arc and ozone resistance
- Good dielectric strength, conformability and cold weather installation
- Munsel grey color
- Bias cut enables easy field installation without any special tools



Typical Dimensions



3M™ Conductor Covers CCI Series

Specifications and Ordering Information for 3M Conductor Covers CCI Series

Product Number	UPC (054114-)	ACSR Conductor Size	Conductor Voltage Rating	Dimension A	Dimension B	Order Quantity
CCI-2-125	04238	2 AWG	15 kV	0.34" (9 mm)	0.125" (3 mm)	100 ft. rolls
CCI-2/0-125	04239	2/0 AWG	15 kV	0.46" (12 mm)	0.125" (3 mm)	100 ft. rolls
CCI-266-125	04241	266 kcmil	15 kV	0.63" (16 mm)	0.125" (3 mm)	100 ft. rolls
CCI-2/0-200	04240	2/0 AWG	25 kV	0.46" (12 mm)	0.200" (5 mm)	100 ft. rolls
CCI-266-200	04242	266 kcmil	25 kV	0.63" (16 mm)	0.200" (5 mm)	100 ft. rolls

Cable Accessory Products

Splice Rejacketing	384
Splice Repair	387
3M™ Safety Sock Grounding Kits, Shielded and Jacketed URD Cable	388
Sealing and Grounding	390
3/C Cable Breakout Boots and 3/C Phase Rejacketing System	392
Insulating and Sealing Compounds	405
Mounting Brackets	407
3M™ Cold Shrink Corrosion Protection Kit CPT Series	408
Preparation and Cleaning	410
3M™ Electrostatic Animal Guard	412
Overhead Conductor Animal Guard Cover	413



Offers accessory products to assist with splice rejacketing, cable jacket sealing, grounding and cable preparation. Many of the products shown here are used with 3M splices and terminations. Remember to reference those sections for more product information.

Complete care
for any
kind of cable



Splice Rejacketing

When jacketed concentric neutral cable (JCN) is spliced, it is necessary to cover the junction between the cable jackets with a water resistant re-jacket. 3M offers three designs for splice re-jacketing: cold shrink one piece sleeve, cold shrink stacked sleeve, and heat shrink adhesive-lined sleeves.

3M™ Cold Shrink Splice Jacket Kits SJ-1A, SJ-2A, SJ-3A

Cold shrink jacket kits offer advanced, one-piece, water-tight re-jacketing for JCN cable splices. Designed as an accessory kit to re-jacket over molded rubber splices, the SJ Series is made from durable EPDM rubber.

3M Cold Shrink jacket kits SJ-1A, SJ-2A and SJ-3A offer advanced, one-piece, water-tight re-jacketing for JCN shielded power cable splices. The SJ series accommodates voltage classifications of 15 kV, 25 kV and 35 kV.

In addition to the open-ended, tubular rubber sleeve, each kit includes Scotch® Rubber Mastic Tape, which is used to adjust cable O.D. and provide a sure, long-lasting seal between the cable jacket and the cold shrink sleeve, as well as sealing around the cable ground conductor.

This unique, cold shrink re-jacketing kit eliminates the need for dangerous torches or special tooling.

Each kit jackets one splice.

3M™ Cold Shrink SJ-SS Series Stacked Sleeve Splice Jacket Kits SJ-1SS, SJ-2SS, SJ-3SS

Cold Shrink Jacket Kits SJ-1SS, SJ-2SS and SJ-3SS are two-piece, water tight re-jacketing kits for JCN cables.



3M™ Cold Shrink SJ-SS Series Stacked Sleeve Splice Jacket Kits SJ-1SS, SJ-2SS, SJ-3SS



3M™ Heat Shrinkable Splice Jacket Kits HSJ Series

Designed to re-jacket molded rubber splices, the SJ-SS Series kits are made of EPDM rubber. This unique two-piece design allows the two tubes to “stack” on top of each other during installation, requiring less space in the manhole or ditch to make the splice. Each kit contains one small cold shrink tube, one large cold shrink tube, one profile bushing and one roll of Scotch® Mastic Tape 2228. SJ-1SSR and SJ-2SSR are specially sized for repair splices.

Each kit jackets one splice.

3M™ Cold Shrink Foldback Splice Jacket Kits SJ-FB

3M Cold Shrink Foldback Splice Jacket Kits SJ-FB Series are a series of folded back, tubular rubber sleeves that combined with Scotch® Rubber Mastic Tape 2228 provide a sealed jacket over cable splices installed on jacketed power cable. These kits are similar to the FB tubes in the 3M Cold Shrink QS III splice kits.

The Scotch Rubber Mastic Tape 2228 provides for an assured sealing interface between the cable jacket and Cold Shrink Foldback Jacket Tube. Mastic strips are also used to seal around the optional, external ground conductor.

The jacketing tube is made from EPDM rubber that contains no chlorides or sulfurs. The completed jacket tube will be continuous from cable jacket to cable jacket, with no seams.

Four kit sizes cover an application range from 4 AWG, 15 kV to sizes larger than 4/0 AWG, 35 kV.

3M™ Heat Shrinkable Splice Jacket Kits HSJ Series

HSJ Series Heat Shrinkable Splice Jackets are adhesive lined for water-tight re-jacketing of JCN cable splices.

Each kit covers one splice.

Applications:

- To jacket inline splices installed on JCN cable and other jacketed power cables with continuous operating temperature of up to 105° C and an emergency overload temperature rating up to 140° C
- For use in indoor or outdoor installations including direct burial, aerial, and submersible applications
- Physical protection and moisture sealing of inline splices installed on shielded power cables having a solid dielectric insulation



Jacketed Concentric Neutral Cable (JCN)

Specifications and Ordering Information for 3M™ Splice Jacket Kits

Product Number	UPC (054007-)	Sleeve Length	Expanded Sleeve I.D.	Min. Cable Jacket O.D.	Max. Cable Splice O.D.	Max. Cable Jacket Opening	Splice Kit Product No.			Case Qty.
							15 kV	25 kV	35 kV	
3M COLD SHRINK SJ SERIES JACKET KITS FOR 15 KV, 25 KV AND 35 KV										
SJ-1A	69742	28" (711,2 mm)	2.7" (68,5 mm)	0.95" (24,1 mm)	2.4" (61,0 mm)	20" (508 mm)	5411	—	—	6
							5411A 5411R* 5412			
SJ-2A	69743	36" (914,4 mm)	3.7" (93,9 mm)	1.15" (29,2 mm)	3.3" (83,8 mm)	28" (711 mm)	5403	5420	5432	6
							5404	5421	5461	
							5405	5422		
							5406	5451 5451A 5452		
SJ-3A	69744	38" (965,2 mm)	4.3" (109,2 mm)	1.55" (39,4 mm)	4.0" (101,6 mm)	30" (762 mm)	5407	5423	5433	6
							5408	5424		
							5409	5425		
								5426		
3M COLD SHRINK SJ-FB SERIES JACKET KITS FOR 15 KV, 25 KV AND 35 KV										
SJ-1FB	55302	—	—	0.95" (24,1 mm)	2.20" (55,9 mm)	28" (71 mm)	5411	—	—	6
							5411A 5412			
SJ-2FB	55303	—	—	1.15" (29,2 mm)	3.25" (82,6 mm)	30" (76 mm)	5403	5420	5432	6
							5404	5421	5461	
							5405	5422		
							5406	5451 5451A 5452		
SJ-3FB	55304	—	—	1.55" (39,4 mm)	3.75" (95,3 mm)	30" (76 mm)	—	5423	5433	6
								5424		
								5425		
								5426		
SJ-4FB	55305	—	—	1.75" (44,5 mm)	4.10" (104,1 mm)	32" (81 mm)	—	—	—	6
Note: The above dimensions should be used to determine sizing for non-3M splices.										
3M COLD SHRINK SJ-SS SERIES COLD SHRINK STACKED SLEEVE KITS FOR 15 KV, 25 KV AND 35 KV										
SJ-1SS	50777	15"	2.4"	0.95"	2.4"	23"	5411	—	—	6
		(381,0 mm)	(60,9 mm)	(24,1 mm)	(61,0 mm)	(584 mm)	5411A			
		18" (457,2 mm)	3.1" (78,7 mm)				5412			

*3M 5411R QS-II requires an additional 8428-12 Cold Shrink tube to jacket the splice. The procedure for jacketing the 5411R QS-II is detailed in the SJ-1A kit installation instructions.

Specifications and Ordering Information for 3M™ Splice Jacket Kits

Product Number	UPC (054007-)	Sleeve Length	Expanded Sleeve I.D.	Min. Cable Jacket O.D.	Max. Cable Splice O.D.	Max. Cable Jacket Opening	Splice Kit Product No.			Case Qty.
							15 kV	25 kV	35 kV	
SJ-2SS	50778	19"	3.1"	1.15"	3.3"	31"	5403	5420	5432	6
		(482,6 mm)	(78,7 mm)	(29,2 mm)	(83,8 mm)	(787 mm)	5404	5421	5461	
		24"	3.7"				5405	5422		
		(609,6 mm)	(93,9 mm)				5406	5451		
SJ-3SS	50779	22"	3.7"	1.55"	4.0"	35"	5407	5423	5433	6
		(558,8 mm)	(93,9 mm)	(39,4 mm)	(101,6 mm)	(889 mm)	5408	5424		
		25"	4.3"				5409	5425		
		(635,0 mm)	(109,2 mm)					5426		
3M COLD SHRINK STACKED SLEEVE REPAIR JACKET KITS FOR 15 KV										
SJ-1SSR	41956	—	—	0.95" (25 mm)	1.95" (49,5 mm)	29" (737 mm)	5411R	—	—	6
SJ-2SSR	41957	—	—	1.15" (29,2 mm)	3.00" (76,2 mm)	37" (940 mm)	5412R 5451R	—	—	6
3M HSJ SERIES HEAT SHRINKABLE SPLICE JACKETS FOR 15 KV, 25 KV AND 35 KV										
HSJ-1	09270	33"	2.5"	0.85"	1.9"	22"	5411	—	—	10
		(84 mm)	(64 mm)	(21,6 mm)	(48,3 mm)	(559 mm)	5411A			
							5411R			
							5412			
HSJ-2	09271	40"	3.0"	1.00"	2.6"	28"	5403	5420	5432	10
		(102 mm)	(76 mm)	(25,4 mm)	(66,0 mm)	(711 mm)	5404	5421	5461	
							5405	5422		
							5406	5451		
							5412R	5451A		
								5451R		
HSJ-3	09272	40"	4.3"	1.50"	3.4"	28"	5407	5423	5433	5
		(102 mm)	(109 mm)	(38,1 mm)	(86,4 mm)	(711 mm)	5408	5424		
							5409	5425		
								25426		

*3M 5411R QS-II requires an additional 8428-12 Cold Shrink tube to jacket the splice. The procedure for jacketing the 5411R QS-II is detailed in the SJ-1A kit installation instructions.

Kit Contents for 3M Splice Jacket Kits

Product Number	SJ-1A	SJ-2A	SJ-3A	SJ-1SS	SJ-2SS	SJ-3SS	HSJ-1	HSJ-2	HSJ-3
Cable Type	Jacketed Concentric Neutral Cable (JCN) See page 385 for cable type illustration.								
Each kit jackets one splice									
	Cold Shrink Jacketing						Heat Shrink Jacketing		
Cold Shrink Tube	1	1	1	2	2	2	—	—	—
Scotch® Rubber Mastic Tape 2228	1	1	1	1	1	1	—	—	—
Heat Shrink Tube	—	—	—	—	—	—	1	1	1
Profile Bushing	—	—	—	1	1	1	—	—	—
Instructions	1	1	1	1	1	1	1	1	1

Splice Repair

3M™ HDCW Wraparound Heat Shrink Cable Repair Sleeves

3M HDCW Heat Shrink Wraparound Cable Repair Sleeves are designed to quickly repair damaged cable jacketing. They may also be used to re-jacket in-line splices. 3M HDCW wrap sleeves can be used as insulation material on cable and splices up to 1000 volts and as jacket repair material on cable up to 35 kV. The design of the wrap sleeve allows it to be installed in tight spaces with ordinary heating equipment such as a torch.

The 3M HDCW cable repair is made from modified cross-linked polyolefin, with a hot-melt adhesive liner on the inner side of the sleeve. Upon heating, the sleeve shrinks and the adhesive melts, creating a water-tight bond between the sleeve and the cable. 3M HDCW Wraparound Cable Repair Sleeves meet ANSI C119.1 requirements. A corrosion proof metal channel is used to close the sleeve during installation.

3M HDCW wrap sleeves are stocked in four lengths and five diameters. Other cut lengths are available upon request.

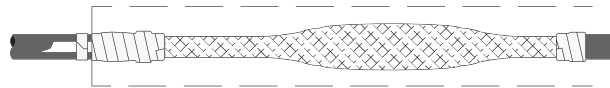


Application Guide and Ordering Information for 3M HDCW Wraparound Heat Shrink Cable Repair Sleeves

Part Number	UPC (051138-)	Length in. (mm)	600/1000V Conductor Size (AWG or MCM)	Jacket Repair Use Range Max./Min. in. (mm)	Sleeve Dimensions	
					Expanded Diameter in. (mm)	Reserved Diameter in. (mm)
HDCW 35/10-250	48416	9.8" (250 mm)	#8-2/0	1.38-0.39" (35-10 mm)	1.97" (50 mm)	0.32" (8 mm)
HDCW 35/10-1200	48436	47.2" (1200 mm)	#8-2/0	1.38-0.39" (35-10 mm)	1.97" (50 mm)	0.32" (8 mm)
HDCW 55/15-500	48421	19.7" (500 mm)	3/0-400	2.17-0.59" (55-15 mm)	2.95" (75 mm)	0.51" (13 mm)
HDCW 55/15-1200	48437	47.2" (1200 mm)	3/0-400	2.17-0.59" (55-15 mm)	2.95" (75 mm)	0.51" (13 mm)
HDCW 80/25-750	48426	29.5" (750 mm)	500-1000	3.15-0.98" (80-25 mm)	3.94" (100 mm)	0.91" (23 mm)
HDCW 80/25-1200	48438	47.2" (1200 mm)	500-1000	3.15-0.98" (80-25 mm)	3.94" (100 mm)	0.91" (23 mm)
HDCW 110/30-1000	48431	39.4" (1000 mm)	1000-2000	4.33-1.18" (110-30 mm)	5.20" (132 mm)	0.98" (25 mm)
HDCW 110/30-1200	48439	47.2" (1200 mm)	1000-2000	4.33-1.18" (110-30 mm)	5.20" (132 mm)	0.98" (25 mm)
HDCW 140/40-1000	48435	39.4" (1000 mm)	N/A	5.39-1.38" (137-35 mm)	5.71" (145 mm)	1.26" (32 mm)
HDCW 140/40-1200	48440	47.2" (1200 mm)	N/A	5.39-1.38" (137-35 mm)	5.71" (145 mm)	1.26" (32 mm)

3M™ Safety Sock Grounding Kits, Shielded and Jacketed URD Cable

For use on tape or wire shield and jacketed concentric neutral (JCN) cables. Provides continuity of the cable shield system and a path to ground in the event of a dig-in.



Ordering Notes:

- Each kit contains shielding for one splice
- Use the shield diameter range as final ordering criteria
- A re-jacketing sleeve, such as the 3M Ground Kits SJ Series, must be applied over shielding
- Kit contents: copper screen sleeve, mastic seal strips, constant-force springs, instructions

Specifications and Ordering Information for 3M™ Safety Sock Series Grounding Kits

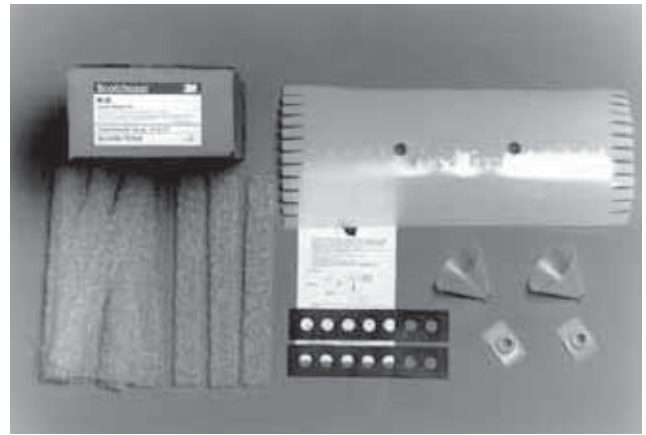
Product Number	UPC (051141-)	Cable Size	Shield Diameter Range	Case Qty.
SS-A	40745	—	0.47-0.78" (12-20 mm)	—
SS-1	15555	#2-3/0	0.78-1.47" (20-37 mm)	1
SS-2	15561	#4/0-500 kcmil	1.0-2.20" (25-56 mm)	1
SS-3	15557	500-1250 Kcmil	1.5-2.93" (38-74 mm)	1
SS-4	40455	—	1.77-4.21" (45-107 mm)	—

These kits are available in Canada only.

3M™ Scotchcast™ Jacket Repair Kits M Series

Scotchcast Jacket Repair Kits M Series contain a reusable wrap-around mold and accessory materials needed to make 10 permanent, flexible and moisture-resistant jacket repairs or splices of portable cable. The kit contains a wrap around mold that permits jacket repair without cutting through the cable. When used with 3M Scotchcast Resin 2130, M series kits provide durable, flexible jacket repair. Scotchcast kits can be used with portable power cable or standard cable.

Note: Scotchcast flame-retardant compound 2130 needed to jacket the repair or splice is not included and must be ordered separately. U.S. Mine Safety and Health Administration acceptance No. P-142-5 MSHA.



3M™ Scotchcast™ Jacket Repair Kits M Series

Specifications and Ordering Information for 3M Scotchcast Jacket Repair Kits M Series

Product Number	M-20	M-30	M-40
Cable Diameter Range	1.60-2.5" (41-64 mm)	1.85-4.0" (47-102 mm)	1.85-6.0" (47-152 mm)
Maximum Repair Length	13-15" (33-38 cm)	20" (51 cm)	32" (81 cm)
Ordering Information			
UPC (054007-)	31392	31393	31394
Case Qty.	1 kit	1 kit	1 kit

It's all
about
quality control



Sealing and Grounding

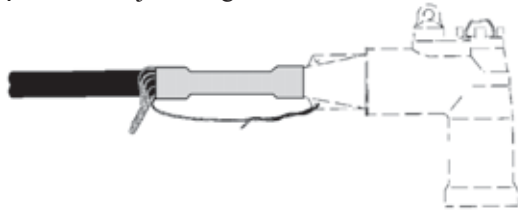
3M™ Cold Shrink Cable Accessory Sealing Kits 8450 Series are designed to seal the end of JCN cable. Use these kits when installing elbows or other cable accessories that do not include a jacket seal. 3M also offers three types of sheath sealing or breakout kits; poured resin, cold shrink and heat shrink, several heat shrink cable sealing end caps and a variety of grounding hardware.

3M™ Cold Shrink Cable Accessory Sealing Kits 8450 Series

The 3M Cold Shrink Cable Accessory Sealing Kits 8450 Series are designed to seal the jacket end of power cables where elbows or other cable accessories are installed. Both the sealing tube and mastic are compatible with commonly used power cable jacketing and semiconductive materials.



Note: Elbow not included.



Jacketed Concentric Neutral Cable (JCN)

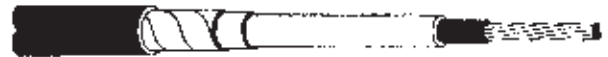
Specifications and Ordering Information for 3M Cold Shrink Cable Accessory Sealing Kits 8450 Series

Product Number	8452	8452L	8453	8454
CABLE TYPE	Jacketed Concentric Neutral Cable (JCN) See above for cable type illustration.			
CABLE SIZE/VOLT CLASS:				
Cable Size for 15 kV Class	2-4/0 AWG (35-100 mm ²)	2-4/0 AWG (35-100 mm ²)	2/0 AWG-1000 kcmil (70-500 mm ²)	750-1500 kcmil (380-725 mm ²)
Cable Size for 25 kV Class	2-2/0 AWG (35-50 mm ²)	2-2/0 AWG (35-50 mm ²)	1/0 AWG-750 kcmil (60-380 mm ²)	600-1250 kcmil (325-625 mm ²)
Cable Size for 35 kV Class	1/0 AWG (60 mm ²)	1/0 AWG (60 mm ²)	1/0 AWG-500 kcmil (60-250 mm ²)	350-1000 kcmil (180-500 mm ²)
Minimum Seal Diameter	0.95" (24 mm)	0.95" (24 mm)	1.28" (33 mm)	1.60" (41 mm)
Maximum Installed Diameter	1.94" (49 mm)	1.94" (49 mm)	2.67" (68 mm)	3.50" (89 mm)
KIT COMPONENTS:				
Cold Shrink Sealing Tube	1	1 (1/2" longer)	1	1
Mastic Sealing Strips 6" (152,4 mm)	3 strips	3 strips	4 strips	6 strips
Instructions	1	1	1	1
Ordering Information				
UPC (054007-)	08336	44312	09676	49938
Inner Unit Pack	1/bag	—	1/bag	—
Case Qty.	10 kits	10 kits	10 kits	10 kits

3M™ Cold Shrink Shield Adapter Kits 8459/8460 Series

3M Cold Shrink Shield Adapter Kits are designed for grounding and sealing tape, wire and UniShield shielded power cables when using cable accessories such as elbows, modular splices and terminations.

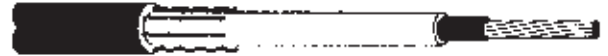
These cold shrink kits require no heat, special tools or special skills to install. The cold shrink kits come complete with all necessary components (except the cable accessory) and are installed in a few simple steps. We've even attached a "bleeder wire" to the ground strap eliminating the need for additional wire and connectors.



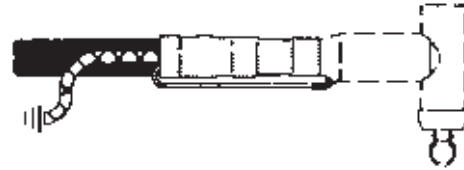
Tape Shielded



Wire Shielded



UniShield®



Specifications and Ordering Information for 3M Cold Shrink Shield Adapter Kits 8459/8460 Series

Product Number	8459	8460	8461	8462
CABLE TYPE	Tape Shielded, Wire Shielded, Unishield® See above for cable type illustration.			
JACKET O.D. RANGE				
Inches (mm)	0.59-1.05 (15,0-26,6)	0.83-1.64 (21,1-41,6)	1.27-2.17 (32,3-55,1)	1.70-2.60 (43,2-66,0)
CABLE SIZE/VOLT CLASS:				
Cable Size for 5/8 kV Class	8-1 kcmil (10-38 mm ²)	1/0 AWG-350 kcmil (50-200 mm ²)	500-1000 kcmil (240-500 mm ²)	—
Cable Size for 15 kV Class	—	2-250 kcmil (35-150 mm ²)	350-1000 kcmil (185-500 mm ²)	1250-1750 kcmil (600-850 mm ²)
Cable Size for 25 kV Class	—	2-250 kcmil (35-150 mm ²)	350-750 kcmil (185-500 mm ²)	1000-1500 kcmil (600-725 mm ²)
Cable Size for 35 kV Class	—	2-1/0 kcmil (35-60 mm ²)	2/0 AWG-350 kcmil (70-200 mm ²)	500-1000 kcmil (240-500 mm ²)
KIT COMPONENTS:				
Cold Shrink Sealing Tube	1	1	1	1
Mastic Sealing Strips 6" (152,4 mm)	3 strips	3 strips	3 strips	3 strips
Constant Force Spring	1	1	1	1
Preformed Ground Braid/ Bleeder Wire	1	1	1	1
Scotch® 13 Semi-Conductive Tape	1 strip	1 strip	1 strip	1 strip
Instructions	1	1	1	1
Ordering Information				
UPC (054007-)	53236*	41458	41459	53131*
Inner Unit Pack	1/bag	1/bag	1/bag	1/bag
Case Qty.	3 kits	3 kits	3 kits	3 kits
* UPC 051128-				

3/C Cable Breakout Boots and 3/C Phase Rejacketing System

3M™ Cold Shrink Silicone Rubber 3/C Cable Breakout Boots 8560 Series and 3M Silicone Rubber RJS Series 3/C Phase Rejacketing Systems are designed to be used in conjunction with 3M terminations, to seal the breakout area and re-jacket the phases on three conductor cable without grounds.

3M™ Cold Shrink Silicone Rubber 3/C Cable Breakout Boots 8560 Series

3M Silicone Cold Shrink Cable Breakout Boots 8561 through 8565 are a series of open-ended molded rubber sealing assemblies that are factory expanded and mounted on removable inner-supporting plastic cores. They are supplied for field installation in a pre-stretched condition.

The supporting cores are removed after the seal has been positioned for installation around the breakout area of a three conductor cable. Core removal allows the silicone rubber boot to shrink down to a predetermined diameter, creating an environmental enclosure for individual cable phase legs and the overall cable jacket.

3M Breakout Boots 8560 Series are designed to protect the phase leg breakout of 3/C medium voltage power cable from exposure to moisture, contamination, corrosion, ozone, ultra-violet radiation, physical contact and other hazards associated with 3/C termination operating environments. 3M Breakout Boots 8560 Series can be used in conjunction with 3M Silicone Rubber Cold Shrink Rejacketing Sleeves for 3/C shielded power cable terminating applications.



3M™ QT-III Silicone Rubber

Features and Benefits:

- Versatile; installs quickly and accommodates a wide range of cable sizes
- Simple hand application; no need for special installation tools
- No torches or heat required
- No specific user skills or craftsmanship required
- Excellent resistance to ozone and ultra-violet radiation
- High dry and wet insulation resistance
- Highly flexible; accommodates all power cable supplier bend radius recommendations
- Seals tight; retains resiliency and pressure even after prolonged years of aging and exposure
- Compatible with all 3M Cold Shrink Termination Products and RJS Series Phase Rejacketing Sleeves

3M™ 3/C Phase Rejacketing System

3M RJS Series Rejacketing Sleeves are designed so that 3M Cold Shrink QT-III and Q-TIII Silicone Rubber Terminations can be used on 3/C (three conductor) medium voltage shielded power cables of tape shield, wire shield, armored and non-armored configurations. RJS Rejacketing Assemblies are a series of silicone rubber insulators incorporating an inner-expandable polyester braid designed to reduce sliding friction and deliver the insulator onto the cable. Rejacketing sleeves are designed to protect the phase legs (core) of 3/C shielded power cable from exposure to moisture, corrosion, ozone, ultra-violet radiation, physical contact and other hazards associated with termination operating environments. Rejacketing sleeves are designed to be used in conjunction with 3M Cold Shrink Breakout Boots and Silicone Rubber Terminations.

Features and Benefits:

- Versatile; installs quickly and accommodates a wide range of cable sizes
- Simple hand application; no need for special installation tools
- No torches or heat required
- No specific user skills or craftsmanship required
- Excellent resistance to ozone and ultra-violet radiation
- High dry and wet insulation resistance
- Excellent shelf life
- Easy-to-adjust sleeve length; adapts to variable equipment connection and mounting requirements
- Compatible with 3M Cold Shrink PST Breakout Boots and Termination Products

3M™ Cold Shrink Silicone Rubber 3/C Cable Breakout Boots 8560 Series

Product Number	UPC (054007-)	Cable Phase Shield Diameter Range mm (in.)	Cable Outer Jacket Diameter Range mm (in.)	Inner Unit Pack	Case Qty.
8561	43143	12.2-18.3 mm (0.48-0.72")	29.7-49.3 mm (1.17-1.94")	—	1/box
8562	43144	15.5-24.2 mm (0.61-0.95")	37.1-67.8 mm (1.46-2.67")	—	1/box
8563	43145	20.8-30.0 mm (0.82-1.18")	48.8-78.7 mm (1.92-3.10")	—	1/box
8564	43146	26.0-41.1 mm (1.02-1.63")	64.0-109.8 mm (2.52-4.32")	—	1/box
8565	43147	27.7-49.3 mm (1.09-1.94")	66.1-119.4 mm (2.60-4.70")	—	1/box
8566	57174*	29.8-47.9 mm (1.17-1.89")	80.7-140.2 mm (3.18-5.52")	—	1/box

* UPC prefix 051128-

3M™ 3/C Phase Rejacketing Sleeve Selection Guide—Based on Diameter Range and Cable Conductor Size

Product Number	UPC (054007-)	Size (feet)	Metallic Shield Diameter Range mm (in.)	3.3 kV (mm) IEC	3.3 kV (mm) JIS	5.0 kV (AWG) AEIC	6.6 kV (mm) IEC	6.6 kV (mm) JIS	8.0 kV (AWG) (AEIC)	Inner Unit Pack	Case Qty.
RJS-1-4FT	43098	4'	10.9-15.2 mm (0.43-0.60")	16-35	8-22	8-2	16-25	8-10	6-4	—	10
RJS-1-1FT	43099	10'	10.9-15.2 mm (0.43-0.60")	16-35	8-22	8-2	16-25	8-10	6-4	—	1
RJS-2-4FT	43100	4'	15.2-20.3 mm (0.60-0.80")	50-95	38-60	1-3/0	35-70	14-38	2-2/0	—	10
RJS-2-10FT	43101	10'	15.2-20.3 mm (0.60-0.80")	50-95	38-60	1-3/0	35-70	14-38	2-2/0	—	1
RJS-3-4FT	43102	4'	20.3-26.0 mm (0.80-1.02")	120-185	100-150	4/0-400	95-150	60-100	3/0-350	—	10
RJS-3-10FT	43103	10'	20.3-26.0 mm (0.80-1.02")	120-185	100-150	4/0-400	95-150	60-100	3/0-350	—	1
RJS-4-4FT	43104	4'	25.9-32.4 mm (1.02-1.28")	240-300	200-250	500-750	185-300	150-250	400-600	—	10
RJS-4-10-FT	43105	10'	25.9-32.4 mm (1.02-1.28")	240-300	200-250	500-750	185-300	150-250	400-600	—	1
RJS-5-4FT	43106	4'	32.5-41.1 mm (1.28-1.62")	—	300-325	800-1000	—	300-325	750-1000	—	10
RJS-5-10FT	43107	10'	32.5-41.1 mm (1.28-1.62")	—	300-325	800-1000	—	300-325	750-1000	—	1

3M™ 3/C Phase Rejacketing Sleeve Selection Guide—Based on Diameter Range and Cable Conductor Size

Product Number	UPC (054007-)	Size (feet)	Metallic Shield Diameter Range mm (in.)	10 kV (mm) IEC	15 kV (AWG) AEIC	20 kV (mm) IEC	25 kV (AWG) AEIC	30 kV (mm) IEC	35 kV (AWG) AEIC	Inner Unit Pack	Case Qty.
RJS-1-4FT	43098	4'	10.9-15.2 mm (0.43-0.60")	—	—	—	—	—	—	—	10
RJS-1-10FT	43099	10'	10.9-15.2 mm (0.43-0.60")	—	—	—	—	—	—	—	1
RJS-2-4FT	43100	4'	15.2-20.3 mm (0.60-0.80")	10-50	2-1	—	—	—	—	—	10
RJS-2-10FT	43101	10'	15.2-20.3 mm (0.60-0.80")	10-50	2-1	—	—	—	—	—	1
RJS-3-4FT	43102	4'	20.3-26.0 mm (0.80-1.02")	70-150	1/0-4/0	25-70	2-1/0	—	—	—	10
RJS-3-10FT	43103	10'	20.3-26.0 mm (0.80-1.02")	70-150	1/0-4/0	25-70	2-1/0	—	—	—	1
RJS-4-4FT	43104	4'	25.9-32.4 mm (1.02-1.28")	185-300	250-450	95-185	2/0-250	35-70	1/0-3/0	—	10
RJS-4-10FT	43105	10'	25.9-32.4 mm (1.02-1.28")	185-300	250-450	95-185	2/0-250	35-70	1/0-3/0	—	1
RJS-5-4FT	43106	4'	32.5-41.1 mm (1.28-1.62")	—	500-750	240-300	300-500	95-240	4/0-500	—	10
RJS-5-10FT	43107	10'	32.5-41.1 mm (1.28-1.62")	—	500-750	240-300	300-500	95-240	4/0-500	—	1

3M™ 3/C Phase Rejacketing Kits RJK Kits for Converting 3/C Cable to Three 1/C Cables

Indoor/ Outdoor Kits	Indoor Kits	Cable Metallic Shield Diameter Range	5 kV	8 kV	15 kV	25/28 kV
RJK-1	RJS-2/3	0.60-0.80	1-3/0	2-2/0	1-2/0	
RJK-2	RJS-3/3	0.80-1.02	4/0-400	3/0-30	1/0-4/0	2-1/0
RJK-3	RJS-4/3	1.02-1.28	500-750	400-600	250-450	2/0-250
RJK-4	RJS-5/3	1.28-1.62	800-1000	750-1000	500-750	300-500

Kit Contents

- 3M Cold Shrink breakout boot, 3M Cold Slip rejacketing sleeves (3 four-foot lengths), provision to externally ground at breakout boot
- 3M Cold Slip rejacketing sleeves (3 four-foot lengths)

Cold Slip

3M Cold slip re-jacketing sleeves incorporate an inner-expandable polyester braid designed to reduce sliding friction and deliver the sleeve quickly onto the cable.

Cold Shrink

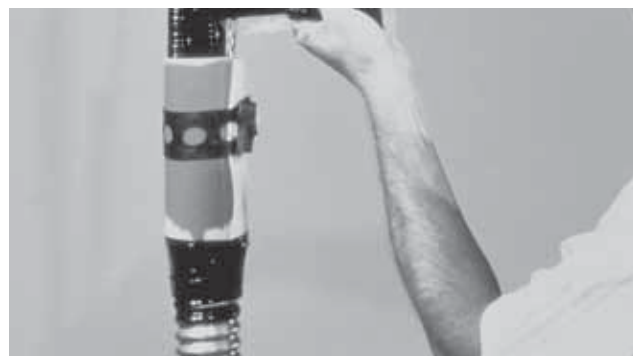
3M Cold Shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied pre-stretched on a removable core for efficiency and ease of installation. All splices are pre-tested in the factory.

3M™ Sheath Seal Kits for Multiconductor Cable

3M offers three types of sheath sealing or breakout kits: poured resin, cold shrink and heat shrink. 3M offers two types of heat shrink cable sealing, caps and a variety of grounding hardware.

3M™ Sheath Seal Kits 5831 and 5832

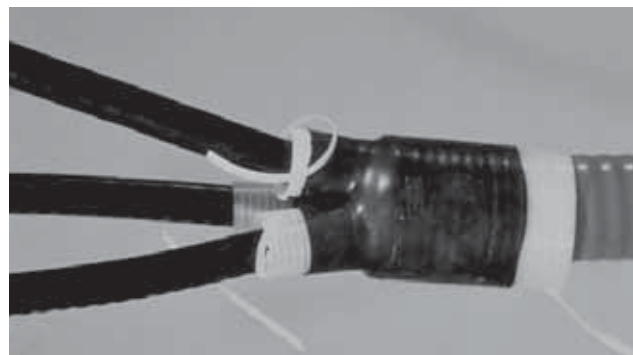
3M Sheath Seal Kits 5831 and 5832 are designed to seal the sheath area for multiconductor cables with or without ground wires. They will handle copper or aluminum cables from #2 AWG through 500 kcmil (35-250 mm²). For kit contents and sizing, see chart below. Each kit makes one seal.



3M™ Sheath Seal Kits 5831 and 5832

3M™ Cold Shrink Sheath Seal Kits 5841 and 5842

3M Cold Shrink Sheath Seal Kits 5841 and 5842 are designed to seal the sheath area for three conductor cables without ground wires. They will handle copper or aluminum cable from #2 AWG through 500 kcmil (35-250 mm²). No heat is required when using these kits. For kit contents and sizing, see chart below. Each kit makes one seal.



3M™ Cold Shrink Sheath Seal Kits 5841 and 5842

Specifications for 3M Sheath Seal Kits

Specifications	5831	5832	5841	5842
Conductor Size	2-3/0 AWG (35-80 mm ²)	4/0 AWG-500 kcmil (120-250 mm ²)	2-4/0 AWG (35-100 mm ²)	4/0 AWG-500 kcmil (120-250 mm ²)
Maximum Jacket or Armor O.D. Range	2.6" (66 mm)	3.75" (95,2 mm)	—	—
Conductor Insulation O.D. Range	N/A	N/A	0.30-1.18" (8-30 mm)	0.77-1.38" (20-35 mm)
Cable Jacket Range	—	—	1.20-1.90" (30-48 mm)	1.80-3.10" (46-79 mm)

KIT COMPONENTS:

Molded Sheath Seal Body	—	—	1	1
Wraparound Mold Body	1	1	—	—
3M™ ScotchCast™ 2130	1	1	—	—
Abrasive Cloth	1	1	—	—
Scotch® Vinyl Electrical Tape Super 33+	1	1	—	—
Scotch® Linerless Rubber Splice Tape 130C	1	1	—	—
3M Scotchfil™ Electrical Insulation Putty	1	1	—	—
Instructions	1	1	1	1

Note: Each kit makes one seal.

Ordering Information for 3M Sheath Seal Kits

Ordering Information	5831	5832	5841	5842
UPC (054007-)	12280	12281	12291	12292
Case Qty.	1 kit	1 kit	1 kit	1 kit

The final determining factor for the 5831 and 5832 is the conductor insulation O.D. and the cable jacket O.D.

The final determining factor for the 5841 and 5842 is the maximum jacket or armor diameter.

Note: Each kit makes one seal.

3M™ Heat Shrinkable Cable Breakout Boots

3M Heat Shrinkable HDBB Cable Breakout Boots are designed for dependable insulating and sealing of cable breakouts in multiconductor armored or sheathed cables and conduit ends. 3M HDBB boots are made from flame retardant, cross-linked polyolefin and meet the material requirements of MIL-I-81765-1. The boots are designed to provide excellent electrical and mechanical protection and are supplied with an internal coating of adhesive for reliable environmental sealing.



3M™ Heat Shrinkable Cable Breakout Boots

Specifications and Ordering Information for 3M™ Heat Shrinkable Cable Breakout Boots

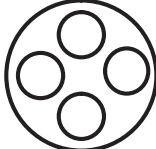


Product Number	Cross Section	UPC (054007-)	Cable Entry End (Max. to Min.)	Conductor Legs (Max. to Min.)	Case Qty.
HDBB-205-1-250		58793	0.80-0.37" (20,32-9,40 mm)	0.33-0.11" (8,38-2,79 mm)	1 each
HDBB-210-1-250		35992*	1.20-0.60" (30,38-15,24 mm)	0.50-0.17" (12,70-4,32 mm)	1 each
HDBB-220-1-250		46654**	1.90-0.90" (48,26-22,86 mm)	0.75-0.30" (19,05-7,62 mm)	1 each
HDBB-230-1-250		35993*	3.00-1.50" (76,20-38,10 mm)	1.45-0.50" (38,10-12,70 mm)	1 each
HDBB-310-1-250		35994*	0.90-0.36" (2,86-9,14 mm)	0.33-0.12" (8,38-3,05 mm)	1 each
HDBB-320-1-250		35995*	1.20-0.50" (30,38-12,70 mm)	0.50-0.16" (12,70-4,06 mm)	1 each
HDBB-321-1-250		35996*	1.50-0.69" (38,10-17,53 mm)	0.65-0.18" (16,51-4,57 mm)	1 each
HDBB-325-1-250		35997*	1.70-0.90" (43,18-22,86 mm)	0.82-0.30" (20,83-7,62 mm)	1 each
HDBB-335-1-250		03409*	2.40-1.40" (60,96-35,56 mm)	1.25-0.50" (31,75-12,70 mm)	1 each
HDBB-340-1-250		35998*	3.20-2.00" (81,28-50,80 mm)	1.45-0.75" (38,10-19,05 mm)	1 each
HDBB-345-1-250		58794	4.90-2.32" (124,46-5,93 mm)	2.00-1.00" (50,80-25,40 mm)	1 each

*UPC prefix 051135-

**UPC prefix 051138-

Note: 3M Breakout Boots are flame retardant and supplied with a factory-applied sealant. Unlined boots are available on special order. All boots are black in color. Standard package is one and multiples of one.

Specifications and Ordering Information for 3M™ Heat Shrinkable Cable Breakout Boots

Product Number	Cross Section	UPC (054007-)	Cable Entry End (Max. to Min.)	Conductor Legs (Max. to Min.)	Case Qty.
HDBB-405-1-250		58795	0.90-0.43" (22,86-10,92 mm)	0.28-0.11" (7,11-2,79 mm)	1 each
HDBB-410-1-250		35999*	1.25-0.80" (31,75-20,32 mm)	0.50-0.19" (1,70-4,83 mm)	1 each
HDBB-415-1-250		58855	1.75-0.98" (43,18-24,89 mm)	0.79-0.28" (20,07-7,11 mm)	1 each
HDBB-420-1-250		36000*	2.35-1.00" (59,69-2,4 mm)	1.00-0.35" (25,40-8,89 mm)	1 each
HDBB-425-1-250		58797	2.65-1.40" (67,31-35,56 mm)	1.20-0.53" (30,48-13,46 mm)	1 each
HDBB-430-1-250		58798	5.25-3.00" (133,35-76,20 mm)	1.35-0.55" (34,29-13,97 mm)	1 each
HDBB-505-1-250		46648**	2.36-0.96" (59,94-24,38 mm)	1.18-0.29" (70,73-7,36 mm)	1 each
HDBB-605-1-250		36001*	2.39-1.45" (60,71-38,10 mm)	0.80-0.35" (20,32-8,89 mm)	1 each

*UPC prefix 051135-

**UPC prefix 051138-

Note: 3M Breakout Boots are flame retardant and supplied with a factory-applied sealant. Unlined boots are available on special order. All boots are black in color. Standard package is one and multiples of one.

PRODUCT REFERRAL GENERATOR

Insulating	pg. 415
– Heat Shrinkable Tubing	
Sealing	
– Cold Shrink End Caps.....	pg. 398

3M™ Cold Shrink End Caps EC-Series

The 3M Cold Shrink End Caps EC-Series are designed to environmentally seal and mechanically protect exposed cable ends using no tools, mastics or tapes. Regardless of the cable type or manufacturer, it takes only four different end-caps to fit cable size ranges from 1.46" to 3.32" (11,6-84,3 mm), reducing the need for additional inventory to cover all cable sizes. The 3M Cold Shrink End Caps EC-Series protects cables, pipes and other cylindrical objects from exposure to moisture, contamination, corrosion, ozone, ultra-violet radiation, physical contact and other environmental hazards.

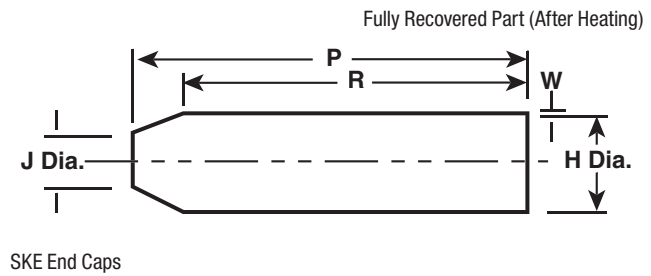
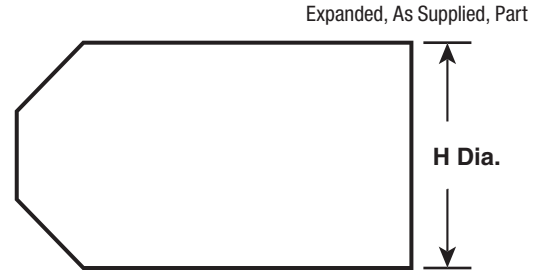
3M™ Heavy-Duty End Caps SKE

3M Heat Shrinkable End Caps are typically used to seal cable ends and are designed to provide moisture, mechanical and environmental protection. 3M SKE end caps are for heavy-duty applications.

3M SKE end caps are manufactured from semi-rigid flame retardant, cross-linked polyolefin. They are supplied with

a factory applied adhesive lining for reliable environmental sealing. Six different sizes accommodate a broad range of cable diameters.

Standard Color: Black.



Specifications and Ordering Information for 3M Cold Shrink End Caps EC-Series

Product Number	UPC (051138-)	Use Range Inches (mm)	Inner Unit Pack
EC-1	52440	0.46-0.82" (11,6-20,9 mm)	10/box
EC-2	52441	0.63-1.18" (15,9-30,1 mm)	10/box
EC-3	52442	1.02-1.94" (26,0-49,2 mm)	10/box
EC-4	52443	1.79-3.32" (45,5-84,3 mm)	10/box

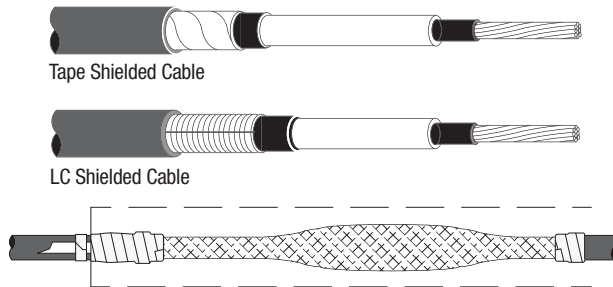
Specifications and Ordering Information for 3M Heavy-Duty End Caps SKE

Product Number	UPC (051138-)	H Dia. Min. X	Max. R	J. Dia. Max. R	P ±10% R	R ±10% R	W ±20% R	For Cable Diameter	Case Qty.
SKE 4/10	48153	0.39 (10,0)	0.16 (4,0)	0.12 (3,0)	1.32 (33,5)	1.18 (30,0)	0.08 (2,0)	0.16-0.31 (4-8)	1000 each
SKE 8/20	48154	0.79 (20,0)	0.30 (7,5)	0.26 (6,5)	2.18 (55,3)	1.97 (50,0)	0.09 (2,3)	0.31-0.43 (8-11)	250 each
SKE 15/40	48155	1.57 (40,0)	0.59 (15,0)	0.41 (10,5)	3.54 (90,0)	3.15 (80,0)	0.12 (3,0)	0.59-1.26 (15-32)	60 each
SKE 25/63	48156	2.48 (63,0)	0.98 (25,0)	0.63 (16,0)	5.63 (143,3)	5.12 (130,0)	0.13 (3,3)	1.00-1.97 (25-50)	60 each
SKE 30/76	48157	2.99 (76,0)	1.18 (30,0)	0.67 (17,0)	6.22 (158,0)	5.91 (150,0)	0,16 (4,0)	1.18-2.36 (30-60)	40 each
SKE 45/100	48158	3.94 (100,0)	1.77 (45,0)	1.02 (26,0)	6.40 (162,5)	5.50 (140,0)	0.16 (4,0)	1.77-3.15 (45-80)	30 each

NOTES:

- All dimensions in both inches and metric. All angles in degrees.
- Dimensions in table: X= Expanded (Minimum); R= Recovered (Maximum)
- Color: Black

3M™ Hi-Amp Splice Grounding Accessory Kit SG-2 and SG-3 for 15 kV, 25 kV and 35 kV



3M Hi-Amp Splice Grounding Accessory Kit SG-2 and SG-3 are designed to accommodate the shielding and grounding of inline splices made on LC, heavy-duty tape and conventional tape shielded power cables. The SG-2 and SG-3 designs provide a fault current capacity of 15,000 Amps for 15 cycles on 15, 25 and 35 kV class cables.

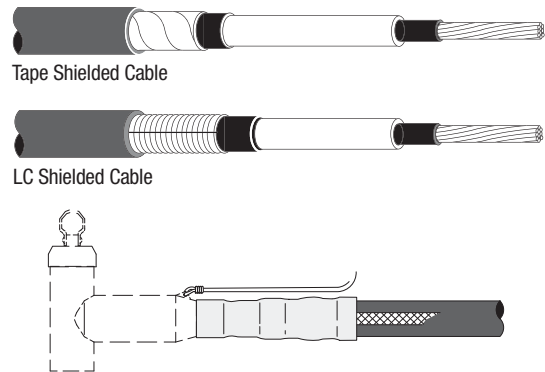
The 3M kits SG-2 and SG-3 were designed to accommodate all 3M Quick Splice bodies as well as most other rubber-molded inline splices currently used in the electrical power distribution industry.

The 3M copper screen sleeves SG-2 and SG-3 are applied over molded rubber splices on cables with shield diameters ranging from 1.25" (32,0 mm) to 2.25" (57,2 mm). In most cases this will include conductor sizes between 350 kcmil and 1000 kcmil and voltage classes of 15 kV through 35 kV. The 3M copper screen sleeves SG-2 and SG-3 and the preformed ground connection braid have a capacity greater than that of #4 AWG copper wire and are fault current rated at 15,000 amps for 15 cycles. The 3M Kit SG-3 has a larger CMA (greater than 2 AWG) copper screen sleeve and two constant force springs per end. This provides additional neutral current capacity.

Following SG-2 and SG-3 component installation, 3M Cold Shrink SJ-1A, SJ-2A, SJ-3A, heat shrink HSJ series or Scotch® Rubber Mastic and Vinyl Tape systems are the recommended choices for sealing and re-jacketing the installed, shielded splice. Each kit provides shielding and grounding for one splice.

Refer to the ordering table on page 401 for cable and accommodation. Final determining factor, for cables not specified, is a shield diameter range from 1.25" (32,0 mm) minimum through 2.25" (57,2 mm) maximum.

3M™ Hi-Amp Accessory Grounding Kit 8473 for 15 kV, 25 kV and 35 kV



3M Hi-Amp Accessory Grounding Kit 8473 is designed to accommodate the grounding of accessories installed on LC, heavy-duty tape and conventional tape-shielded power cables. The 3M Grounding Kit 8473 design provides a fault current capacity of 15,000 Amps for 15 cycles on 15 kV, 25 kV and 35 kV class cables.

Product application range for the 3M kit 8473 includes cable sizes from 350 kcmil through 1000 kcmil in 15 kV through 35 kV voltage classes as indicated in the table on page 401.

The kit 8473 was designed to be used with 600-Amp elbows and other accessories where cable jacket-to-accessory sealing and high-ampacity grounding is desired.

The 3M Grounding Kit 8473 preformed ground braid has a fault current capacity of 15,000 Amps for 15 cycles with an equivalent cross-sectional area greater than #4 AWG copper wire. Each kit provides grounding and sealing for one accessory.

Refer to the ordering table on page 401 for cable accommodation. Final determining factor, for cables not specified, is a shield diameter range from 1.25" (32,0 mm) minimum through 2.25" (57,2 mm) maximum.

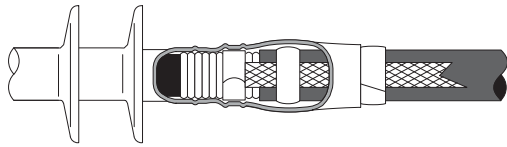
3M™ Hi-Amp Grounding Accessory Kit GSHA-8 QT-II for 15 kV, 25 kV and 35 kV



Tape Shielded Cable



LC Shielded Cable



3M Hi-Amp Grounding Accessory Kit GSHA-8 QT II is designed to accommodate the grounding of terminations made on LC, heavy-duty tape and conventional tape-shielded power cables. The 3M Kit GSHA-8 QT II design provides a fault current capacity of 15,000 Amps for 15 cycles on 15 kV, 25 kV and 35 kV class cables.

The 3M Kit GSHA-8 is designed to be used in conjunction with 3M QT-II terminations in applications where high-ampacity grounding is desired.

The 3M product GSHA-8 will accommodate cable sizes ranging from 350 kcmil through 1000 kcmil and voltage

classes of 15 kV through 35 kV. The preformed ground braid contained in the 3M Kit GSHA-8 has a fault current capacity of 15,000 Amps for 15 cycles. Each kit provides shielding and grounding for one termination.

Refer to the ordering table on page 401 for cable information. Final determining factor, for cables not specified, is a shield diameter range from 1.25" (32,0 mm).

3M™ Cable Grounding Kits 2252 and 2253



Jacketed Concentric Neutral Cable (JCN)



The 3M Cable Grounding Kits 2252 and 2253 provide a simple, reliable and secure method for grounding and resealing of the jacket of direct buried distribution cables. These kits are designed for use with jacketed concentric neutral (JCN) power cables ranging from 2 to 4/0 AWG, rated through 35 kV. A common kit application is for grounding a primary neutral at least every 1320 feet (1/4 mile) per Rural Utilities Service (RUS) Bulletin 83-1.

Specifications for 3M™ Sealing and Grounding Products 15 kV, 25 kV and 35 kV

Specifications	SG-2	SG-3	8473	GSHA-8	2252	2253	2254
CABLE TYPE	Tape Shielded Cable, LC Shielded Cable See pg. 399-400 for cable type illustration.				Jacketed Concentric Neutral Cable (JCN) See pg. 400 for cable type illustration.		
	Each kit provides grounding and sealing for 1 splice or termination				Each kit provides 1 cable ground		
Shield O.D. Range	1.25-2.25" (132,0-52,2 mm)	1.25-2.25" (132,0-52,2 mm)	1.25-2.25" (132,0-52,2 mm)	1.25-2.25" (132,0-52,2 mm)	—	—	—
Conductor Range	350-1000 kcmil	350-1000 kcmil	350-1000 kcmil	350-1000 kcmil	2-4/0 AWG	250-500 kcmil	500-1000 kcmil
Circular Mil Area	61,000	72,000	—	—	—	—	—
KIT COMPONENTS:							
PST Cold Shrink Tube	—	—	1	—	—	—	—
Roll of Scotch® 13 Semiconducting Tape	—	—	—	1	—	—	—
Roll of Scotch 2228 Rubber Mastic Tape	—	—	—	—	1	1	1
Roll of Scotch Super 33+ Vinyl Electrical Tape	—	—	—	—	1	1	1
Tin-Plated Copper "C" Connector	—	—	—	—	1	1	1

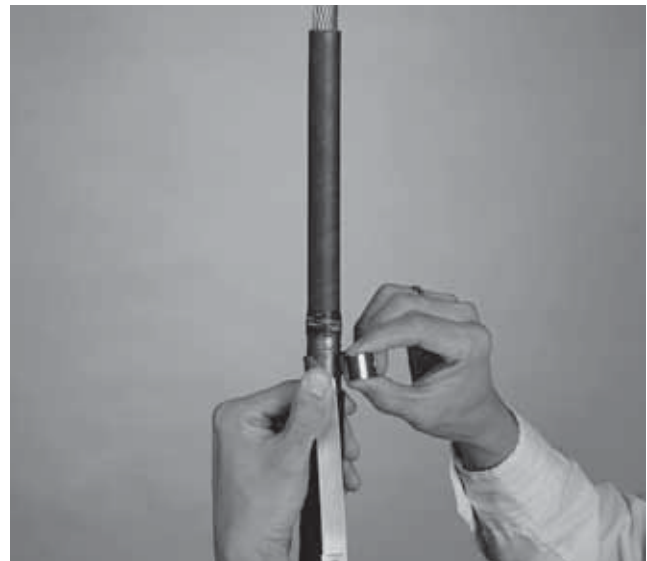
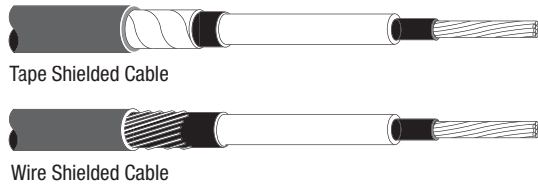
Specifications for 3M™ Sealing and Grounding Products 15 kV, 25 kV and 35 kV

Specifications	SG-2	SG-3	8473	GSHA-8	2252	2253	2254
10" (25,4 cm) Length of Tin Plated Copper Braid	—	—	—	—	1	1	1
Copper Screen Sleeve	1	1	—	—	—	—	—
Mastic Seal Strip	3	3	1	1	1	1	1
Constant-Force Spring	2	4	1	1	1	1	1
Preformed Ground Braid	1	1	1	1	—	—	—
Instructions	1	1	1	1	1	1	1
Ordering Information							
UPC (054007-)	50041	41511	50043	50042	08335	55648*	56939*
Case Qty.	10 each	10 each	10 each	10 each	10 each	10 each	10 each

* UPC prefix 051128-

3M™ Ground Strap Assembly GS Series

3M Ground Strap Assembly Kit GS Series is designed for grounding tape- and wire-shielded power cables. Check that cable conductor size matches the ground strap assembly shown in the ordering table below.



Specifications and Ordering Information for 3M Ground Strap Assembly GS Series

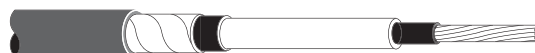
Specifications	GS-1	GS-2	GS-3
CABLE TYPE		Jacketed URD Cable See above for cable type illustration.	
Strap Length x Width	4.75" x 0.31"	7.12" x 0.62"	6.87" x 0.62"
VOLTAGE AND INSULATION THICKNESS		Conductor AWG Size Range (mm ²)	
5 kV-100% 90 mils	8-3/0 (10-80 mm ²)	2/0-750 (70-325 mm ²)	600-2000 (325-1000 mm ²)
5 kV-133% 8 kV -100% 115 mils	8-1/0 (10-50 mm ²)	1/0-750 (60-325 mm ²)	500-2000 (300-1000 mm ²)
8 kV-133% 140 mils	8-1 (10-38 mm ²)	1-600 (50-300 mm ²)	400-1750 (240-850 mm ²)
15 kV- 100% 175 mils	—	2-500 (35-250 mm ²)	350-1750 (180-850 mm ²)
15 kV- 133% 220 mils	—	2-350 (35-180 mm ²)	250-1500 (125-725 mm ²)
25 kV 260 mils	—	2-400 (35-200 mm ²)	3/0-1000 (95-500 mm ²)
35 kV 345 mils	—	1/0-300 (60-150 mm ²)	1/0-750 (60-325 mm ²)
Ordering Information			
UPC (054007-)	33976	33977	33978
Case Qty.	9 each	9 each	9 each

Product Information for 3M™ Constant Force Springs

Product Number	CFS-0.47/0.78	CFS-0.80/1.50	CFS-1.00/2.20	CFS-1.50-3.00	CFS-1.50/3.00W	CFS-1.80/4.00
APPLICATION RANGE						
Min. inches (mm)	0.50" (12,7 mm)	0.80" (20,3 mm)	1.00" (25,4 mm)	1.50" (38,1 mm)	1.50" (38,1 mm)	1.80" (45,7 mm)
Max. inches (mm)	0.75" (19,0 mm)	1.50" (38,1 mm)	2.20" (56,0 mm)	3.00" (76,2 mm)	3.00" (76,2 mm)	4.00" (101,6 mm)
Width inches (mm)	0.500" (12,7 mm)	0.625" (15,9 mm)	0.625" (15,9 mm)	0.625" (15,9 mm)	0.750" (19,0 mm)	0.625" (15,9 mm)
STD. Carton	30	30	30	9	9	9
UPC (054007-)	42372	42374	42375	42376	42378	42379

3M™ Shield Grounding Accessory Kits GSK

3M Shield Grounding Accessory Kits GSK are used to convert CN/JCN termination kits for use on shielded cables minimum through 2.25" (57,2 mm) maximum.



Tape Shielded Cable



LC Shielded Cable

Specifications and Ordering Information for 3M™ QT-II Termination Kit

Product Number	UPC (051128-)	QT-II Term. Kit Number	5 kV (90 mil)	5/8 kV (115 mil)	8 kV (140 mil)	15 kV (175 mil)	15 kV (220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-22	53087	5641	3/0-300	2/0-250	1/0-4/0	2-3/0	2-1/0	—	—
		5651	3/0-300	2/0-250	1/0-4/0	2-3/0	2-1/0	2-1	—
GSK-34	53088	5642	350-750	350-750	250-600	3/0-500	2/0-350	—	—
		5652	350-750	350-750	250-600	3/0-500	2/0-350	1/0-250	—
		5646	350-750	350-750	250-600	3/0-500	2/0-350	1/0-250	2-3/0
GSK-56	53089	5643	750-1500	750-1250	600-1000	500-1000	350-500	—	—
		5644	1000-2000	1000-2000	800-1750	750-1750	600-1500	—	—
		5653	750-1500	750-1250	600-1000	500-1000	350-500	300-500	—
		5654	1000-2000	1000-2000	800-1750	750-1750	600-1500	600-1250	—
		5647	750-1500	750-1250	600-1000	500-1000	350-500	300-500	4/0-400
		5648	1000-2000	1000-2000	800-1750	750-1750	600-1500	600-1250	500-1000

Specifications and Ordering Information for 3M™ QT-III Termination Kit

Product Number	UPC (051128-)	QT-III Term. Kit Number	5 kV (90 mil)	5/8 kV (115 mil)	15 kV (175/220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-22	53087	7642-T-110	4/0-400	3/0-300	2-4/0	—	—
		7642-S-2	4/0-400	3/0-300	2-4/0	—	—
		7652-S-4	4/0-400	3/0-300	2-4/0	2-1/0	—
GSK-34	53088	7653-S-4	300-500	250-500	2/0-300	2-4/0	—
		7654-S-4	500-750	350-700	4/0-500	2/0-250	—
		7644-T-110	500-750	350-700	4/0-500	—	—
		7653-T-150	300-500	250-500	2/0-300	2-4/0	2-2/0
		7663-S-8	300-500	250-500	2/0-300	2-4/0	2-2/0
		7664-S-8	500-750	350-700	4/0-500	2/0-250	2-4/0

Specifications and Ordering Information for 3M™ QT-III Termination Kit






Product Number	UPC (051128-)	QT-III Term. Kit Number	5 kV (90 mil)	5/8 kV (115 mil)	15 kV (175/220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-56	53089	7655-S-4	700-1500	600-1250	500-1000	250-800	—
		7656-S-4	1750-2000	1500-2000	1250-2000	900-1750	—
		7645-T-110	700-1500	600-1250	500-1000	—	—
		7646-T-110	1750-2000	1500-2000	1250-2000	—	—
		7655-T-150	700-1500	600-1250	500-1000	250-800	3/0-600
		7656-T-150	1750-2000	1500-2000	1250-2000	900-1750	700-1500
		7665-S-8	700-1500	600-1250	500-1000	250-800	3/0-600
		7666-S-8	1750-2000	1500-2000	1250-2000	900-1750	700-1500

Insulating and Sealing Compounds

3M™ Scotchcast™ Insulating and Sealing Compounds are compatible with most cable insulations and jackets and accommodate many splices, including odd-shaped connectors. These compounds feature a high degree of mechanical strength and provide moisture resistance for above ground and buried applications.



Specifications for 3M™ Scotchcast Insulating and Sealing Compounds

Product Name	Description	Gel Time @ 73° (23°C)	Energize Time	Used in These 3M Kits	Maximum Operating Temperature	Color
 Scotchcast Electrical Insulating Resin 4	PERMANENT Rigid, hard material Insulating up to 8 kV Jacketing up to 69 kV epoxy	16 mins.	45 mins.*	82-A Series 82-B1 85-14CP 90-B1	194°F (90°C) continuous 266°F (130°C) overload 482°F (250°C) intermittent	Black
 Scotchcast Electrical Insulating and Sealing Compound 2104	PERMANENT Semi-flexible 1000 volts max. Polyurethane	18 mins.	Immediately	72-N 85 Series	194°F (90°C) continuous 266°F (130°C) overload	Dark Green
 Scotchcast 2123 Re-entenable Electrical Insulating Resin	RE-ENTERABLE Flexible polybutadiene	62 mins.	Immediately	78-R Series	194°F (90°C) continuous 266°F (130°C) overload	Amber, Transparent
 Scotchcast Flame Retardant Compound 2130	FLAME RETARDANT Semi-flexible 5000 volts max. Permanent urethane MSHA P-142-5	15 mins.	Immediately	5750, 5760, 5831, 5832, 82-F1, 82-F2, 82-BF1, M-20, -30, -40	194°F (90°C) continuous 266°F (130°C) overload	Black
 Scotchcast Wet-Niche Potting Compound 2135	FLEXIBLE Wet niche putty Urethane	15 mins.	Immediately	—	UL Listed 2L02 220°F (105°C)	Black

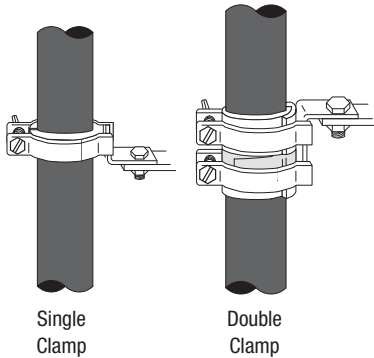
*At 73°F (23°C) and cooler temperatures, resin will cure slower. Do not energize until resin has cooled and solidified.

Specifications and Ordering Information for 3M™ Scotchcast™ Resins

Product Number	UPC (054007-)	Size/Type of Package	Inner Unit Pack	Case Qty.
3M SCOTCHCAST ELECTRICAL INSULATING RESIN 4				
4-A	43165	A/3.2 oz. (90 g) 4.8 cu. in. (78,6 cu. cm)	—	10 containers
4-B	43166	B/7.4 oz. (209 g) 11.2 cu. in. (183,5 cu. cm)	—	10 containers
4-C	43167	C/14.7 oz. (418 g) 22.3 cu. in. (365,4 cu. cm)	—	10 containers
4-D	04206	D/22.2 oz. (630 g) 33.6 cu. in. (550,6 cu. cm)	—	10 containers
4-E	04207	E/10.4 oz. (294 g) 15.7 cu. in. (257,2 cu. cm)	—	10 containers
3M SCOTCHCAST ELECTRICAL INSULATING AND SEALING COMPOUND 2104				
2104-A	31189	A/3.46 oz. (98 g) 5.7 cu. in. (93,4 cu. cm)	cont.	10 each
2104-B	31382	B/7.4 oz. (210 g) 12.6 cu. in. (206,4 cu. cm)	cont.	10 containers
2104-C	31383	C/14.82 oz. (420 g) 25.4 cu. in. (416,2 cu. cm)	1/box	10 containers
2104-D	11849	D/23.8 oz. (675 g) 40.8 cu. in. (668,5 cu. cm)	1/box	10 each
3M SCOTCHCAST RE-ENTERABLE ELECTRICAL INSULATING COMPOUND 2123				
2123-C	55120*	C/12.3 oz. (350 g) 23.7 cu. in. (338,3 cu. cm)	1/box	10 each
2123-D	55121*	D/21.2 oz. (600 g) 40.6 cu. in. (665,3 cu. cm)	1/box	10 each
3M SCOTCHCAST FLAME RETARDANT COMPOUND 2130				
2130-B	31401	B/7.6 oz. (216 g) 10.7 cu. in. (175,3 cu. cm)	1/box	10 each
2130-C	31402	C/21.7 oz. (616 g) 30.5 cu. in. (499,8 cu. cm)	1/box	10 each
2130 Part A	50237	A/5 gal. (18,93 L)		1 pail
2130 Part B	50238	B/5 gal. (18,93 L)		1 pail
3M SCOTCHCAST WET-NICHE POTTING 2135				
2135	69798	F/1.83 oz. (52,5 g) 3.3 cu. in. (54,0 cu. cm)	1/box	10 each
3M SCOTCHCAST CABLE REPAIR COMPOUND 2135M				
2135M	50433	F/6.9 oz. (195 g) 12.25 cu. in. (13,12 cu. cm)	—	10 each
*UPC prefix 051128-				

Mounting Brackets

3M™ Mounting Brackets MB and MBS Series



The 3M Mounting Brackets MB and MBS Series have been designed to mount 3M molded rubber terminations. These brackets are attached to the cable just below the termination. This provides a tongue

that can then be attached to an MB-1 mounting bracket or to any other support. The 3M Brackets MB Series are made from galvanized steel. The 3M Brackets MBS Series are made from stainless steel to provide additional corrosion protection in highly contaminated environments.



3M™ Cross-Arm Mounting Bracket MB-1

3M Cross-Arm Mounting Bracket MB-1 is a cross-arm bracket for use in holding terminated cable. The MB-1 is ideal to use when ordering the MB or MBS termination mounting brackets featured on this page.

Specifications and Ordering Information for 3M™ Hardware Accessories

Product Number	UPC (054007-)	Cable O.D. Range	Inner Unit Pack Qty.	Case Qty.
MB-1	11230	—	1/box	10 each
MB-3	14754	0.80-1.25" (20-32 mm)*	1/box	10 each
MB-4	14755	1.10-1.50" (28-38 mm)	1/box	10 each
MB-5**	08200	1.45-1.95" (37-50 mm)	1/box	10 each
MB-6**	08286	1.80-2.40" (46-61 mm)	1/box	10 each
MBS-4**	49685	1.10-1.70" (28-43 mm)	1/box	10 each
MBS-5**	49686	1.45-1.95" (37-50 mm)	1/box	10 each
MBS-6**	49687	1.80-2.40" (46-61 mm)	1/box	10 each

*Caution: Use cable O.D., not insulation O.D. for determining the proper size.

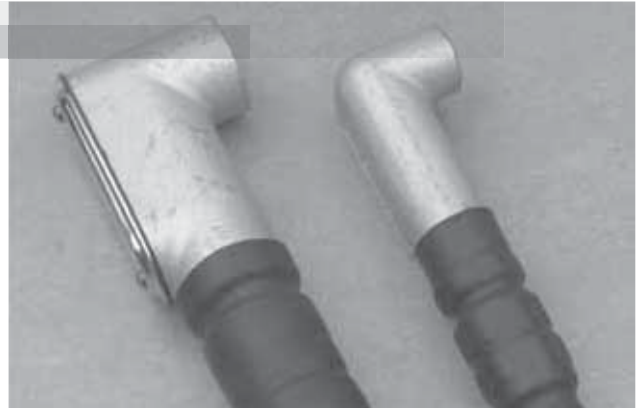
**Has double clamps.

3M™ Cold Shrink Corrosion Protection Kit CPT Series

3M Cold Shrink Corrosion Protection Kit CPT Series are designed to provide a quick and easy method for protecting bulkhead termination connectors from the corrosive influences of wet and salt-fog installation environments.

A CPT series assembly is an open-ended tubular rubber sleeve which is factory expanded and assembled onto a removable core. The core is removed after the assembly has been positioned for installation over a bulkhead terminator connector. Mastic strips are provided for sealing between NPT fitting threads and the enclosure in use (junction box, cabinet, panel board, etc.). CPT insulating sleeves are made of an EPDM rubber that contains no chlorides or sulfers. Ten kits accommodate 1/2" through 4" bulkhead connectors.

To extend the useful life of this product in applications where continuous exposure to high levels of ultra-violet radiation are expected, overwrap with Scotch® Super 33+™ Vinyl Electrical Tape or Scotch Silicone Tape 70.



Features:

- Simple installation, requires no tools
- Accommodates a wide range of bulkhead connectors
- No torches or heat required
- Good thermal stability
- Are designed to seal tight, retain its resiliency and pressure after prolonged years of aging and exposure
- Excellent wet electrical properties
- Salt spray resistant. Meets requirements of ASTM B287, in a 5% salt solution with a 3.0-3.1 pH
- Water-resistant. Meets the water seal requirements of ANSI C119.1
- Resists fungus
- Resists acids, alkalies and ozone

3M Cold Shrink Corrosion Protection Kit CPT Series Sizing Guide

Product Number (NPT Size)	UPC (054007-)	Cable O.D. Minimum in. (mm)	Connector		Inner Unit Pack	Min. Order Case Qty.
			Maximum O.D. in. (mm)	Maximum Installed Length in. (mm)		
CPT-1/2	43021	0.50" (13 mm)	1.60" (41 mm)	4.50" (114 mm)	—	10
CPT-3/4	43022	0.66" (17 mm)	1.90" (48 mm)	4.80" (122 mm)	—	10
CPT-1	43023	0.66" (17 mm)	2.20" (56 mm)	4.80" (122 mm)	—	10
CPT-1-1/4	43024	1.22" (31 mm)	2.65" (67 mm)	4.80" (122 mm)	—	10
CPT-1-1/2	43025	1.40" (36 mm)	3.00" (76 mm)	5.50" (140 mm)	—	10
CPT-2	43026	1.68" (43 mm)	3.60" (91 mm)	6.50" (165 mm)	—	10
CPT-2-1/2	43027	1.97" (50 mm)	4.30" (109 mm)	8.50" (215 mm)	—	5
CPT-3	43028	2.60" (66 mm)	5.40" (137 mm)	8.50" (215 mm)	—	5
CPT-3-1/2	43029	2.90" (74 mm)	6.00" (152 mm)	10.0" (254 mm)	—	5
CPT-4	43030	2.90" (74 mm)	6.00" (152 mm)	10.5" (267 mm)	—	5

3M™ Metal Clad Jacketed Cable Connectors — Connector Cross Reference

Trade Size (inches) (NPT Size)	Cable Jacket Range (inches)		Crouse-Hinds (TMC or TMCX)	Appleton	T & B	O-Z/Gedney
	Min.	Max.				
1/2"	0.46"	0.71"	TMCX165	TMCX6550	ST050-462 ST050-464	JMC-50-71
3/4"	0.65"	0.93"	TMCX285	TMCX8875	ST075-467 ST075-468	JMC-75-115
1"	1.10"	1.45"	TMCX3112	TMCX118100	ST100-469	JMC-100-145
1-1/4"	1.37"	1.79"	TMCX4140	TMCX140125	ST125-470 ST125-550 ST125-471	JMC-125-179
1-1/2"	1.74"	2.15"	TMCX5161	TMCX166150	ST150-472 ST150-473	JMC-150-215
2"	2.03"	2.59"	TMCX6206	TMCX206200	ST200-551 ST200-474 ST200-475 ST200-476	JMC-200-259
2-1/2"	2.47"	3.03"	TMCX7247	TMCX251250	ST250-477 ST250-478	JMC-250-303
3"	2.93"	3.61"	TMCX8302	TMCX304300	ST300-479 ST300-480 ST300-481	JMC-300-361
3-1/2"	3.55"	4.23"	TMCX9352	TMCX359350	ST350-482 ST350-483	JMC-350-423
4"	4.05"	4.73"	TMCX10402	TMCX402400	ST400-484 ST400-485	JMC-400-473

Preparation and Cleaning



3M™ Scotch-Brite™ Hand Pads 7440 Series

3M Scotch-Brite Pads make the toughest cleaning jobs easier. These pads are so versatile. They are designed to outperform steel wool, wire brushes, sandpaper and other nonwoven surface conditioning products and can be used with water or solvents. They resist tearing, splintering, shredding and loading and will never rust. All Scotch-Brite Pads measure 6" x 9" (152 x 228 mm). Blending Pads are made of a coarse mineral abrasive. General Purpose Pads are reusable—they rinse clean and are constructed of a nylon web. Ultra Fine Pads are highly conformable.

Select the Scotch-Brite Pads for your specific abrasion needs and carry them with you everywhere you work. You can use them on virtually any surface material, including all kinds of metals, plastics, composites, ceramics, porcelain, glass and rubber.



3M™ Cable Cleaning System CC Series

3M Cable Cleaning System CC Series cleans cable insulation, metal, electrical and mechanical parts. It can be used for PCB cleanup and in parts cleaners for degreasing. CC series solvent is also suitable for use on transformers, generators, motors and metal parts of all sorts. It removes surface oils, tars and heavy greases. Use of solvent on carbon-containing semiconductive surfaces such as cable insulation shields is not recommended.

CC series solvent can effectively replace 1.1.1- trichlorethane and other hazardous solvents. Neither CC series solvent nor its ingredients are presently subject to regulations that would inhibit shipping, packaging or applications.

CC-Dry contains three each 4" x 8" (102 x 203 mm) lintless non-woven pads packed in a bag. These are used for drying the common citrus cable cleaner (CC series) off of cable installation when preparing cable. The CC-2-Dry Kit contains a CC-2 Kit and three each dry lintless pads.

Specifications and Ordering Information for 3M™ Scotch-Brite Hand Pads 7440 Series

Specifications	Blending Pads 7446	General Purpose Pads 7447	Ultra Fine Pads 7448
Features	<ul style="list-style-type: none"> · Hand blending and finishing stainless steel and aluminum · Light oxide removal · Paint removal · Wood highlighting 	<ul style="list-style-type: none"> · Scuff sanding, cleaning, finishing and deburring · Use for car reconditioning — cleaning upholstery, headliners, white-wall tires, door pads and chrome · Deburring metals and ceramics · Cleaning machinery 	<ul style="list-style-type: none"> · Light duty — ideal for cosmetic cleaning and creating consistent finishes
Electrical Applications		<ul style="list-style-type: none"> · Cleaning cable jackets, insulation and conductors · Cleaning and polishing bus bar · Cleaning insulators and cable accessories · Rust removal from metal cabinets · Relay contact cleaning · Battery connections 	
Color	Gray	Maroon	Gray
Size	6 x 9" (152 x 228 mm)	6 x 9" (152 x 228 mm)	6 x 9" (152 x 228 mm)
Ordering Information			
UPC (048011-)	04051	04029	04028
Pads/Box	1	1	1
Case Qty.	1 case	1 case	1 case

Specifications and Ordering Information for 3M™ Cable Cleaning System CC Series

Specifications	CC-2	CC-Dry	CC-2-Dry	CC-3	CC-4
Description	Cable Cleaning Preparation Kit	Cable Cleaning Pads	Cable Cleaning Pads and Kit	Cable Cleaning Pad Kit	Cable Cleaning Solvent (quart bottle)
Ordering Information	CC-2	CC-Dry	CC-2-Dry	CC-3	CC-4
UPC (054007-)	49563	43415	43414	49564	49565
Case Qty.	10 each	10 kit	10 kit	10 each	4 each

Scotch® Electrician's Abrasive Roll A-3

Scotch Electrician's Abrasive Roll A-3 is a 120-grit, closed-coat aluminum oxide strip, which is nonconductive and flexible. It is packaged in a dispenser-type box.

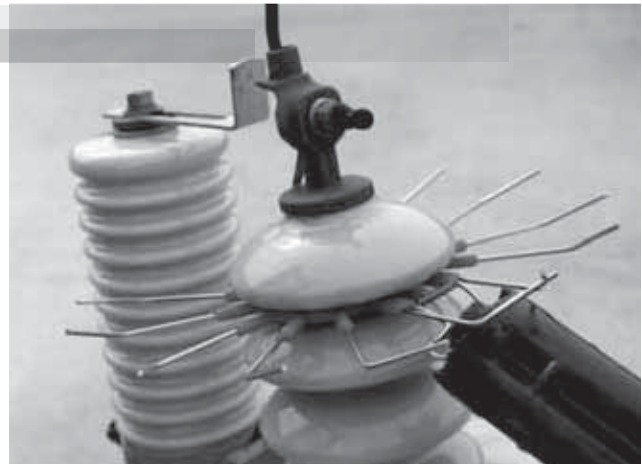


Ordering Information for Scotch® Electrician's Abrasive Roll A-3

Product Number	UPC (054007-)	Size/Type of Package	Inner Unit Pack	Case Qty.
A-3	11560	1" x yd./Grit 120J (25,4 mm x 22,7 m)	5 rls	10 rls

3M™ Electrostatic Animal Guard

3M Electrostatic Animal Guard (formerly Guthrie Guard) is a patented electrostatic barrier which attaches to energized electrical insulators/bushings rated up to 35 kV. The guard consists of rugged plastic with metal spokes radiating outward. When an animal touches the spokes, it receives an electric shock similar to those generated by electrified livestock fences. The animal is not injured and power service is not interrupted.



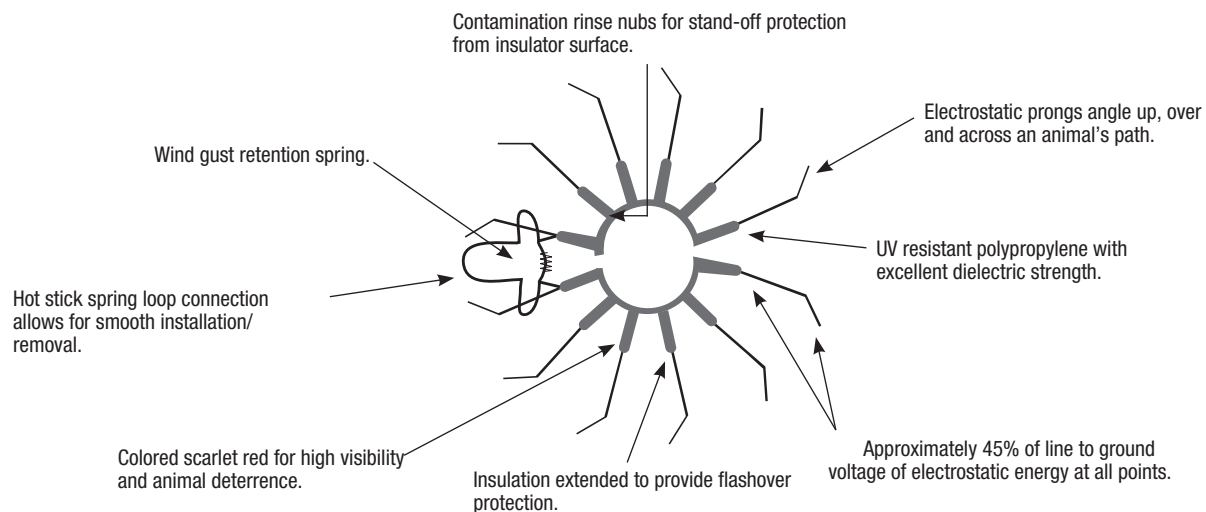
With 3M Electrostatic Animal Guard, electric utilities can minimize customer outages due to animal contact. 3M Electrostatic Animal Guard offers several advantages over other conventional cover-up devices:

- Can be installed while circuit is energized
- Maximum longevity
- Humane

3M Electrostatic Animal Guard Specifications and Ordering Information

Product Number	UPC (054007-)	Insulator Neck Diameter Range* in. (mm)
GG-7525	43128	0.75-2.5" (19,1-63,7 mm)
GG-1525	43125	1.5-2.5" (38,2-63,7 mm)
GG-2545	43126	2.5-4.5" (63,7-114,7 mm)
GG-4565	43127	4.5-6.5" (114,7-165,7 mm)

*Insulator neck diameter range is defined as the diameter of the insulator in between the skirts.



Overhead Conductor Animal Guard Cover

3M™ Conductor Covers CCI Series are extruded silicone rubber tubes designed for field installation over bare conductors to insulate them from adjacent phases, grounded equipment, and animal contact. These covers are made with a full-length longitudinal bias cut to allow for easy slip-on installation, and provide an increased creepage distance between the conductor and the outer surface of the cover.

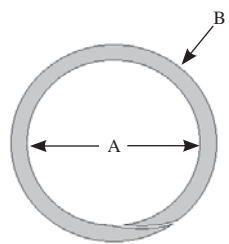
The covers are offered in two thickness sizes for covering both 15 kV and 25 kV rated conductors, and are available in ACSR conductor sizes from 2 AWG to 266 kcmil.

Features:

- Excellent UV, arc and ozone resistance
- Good dielectric strength, conformability and cold weather installation
- Munsel grey color
- Bias cut enables easy field installation without any special tools



Typical Dimensions



3M™ Conductor Covers CCI Series

Specifications and Ordering Information for 3M Conductor Covers CCI Series

Product Number	UPC (054114-)	ACSR Conductor Size	Conductor Voltage Rating	Dimension A	Dimension B	Order Quantity
CCI-2-125	04238	2 AWG	15 kV	0.34" (9 mm)	0.125" (3 mm)	100 ft. rolls
CCI-2/0-125	04239	2/0 AWG	15 kV	0.46" (12 mm)	0.125" (3 mm)	100 ft. rolls
CCI-266-125	04241	266 kcmil	15 kV	0.63" (16 mm)	0.125" (3 mm)	100 ft. rolls
CCI-2/0-200	04240	2/0 AWG	25 kV	0.46" (12 mm)	0.200" (5 mm)	100 ft. rolls
CCI-266-200	04242	266 kcmil	25 kV	0.63" (16 mm)	0.200" (5 mm)	100 ft. rolls

Index

3M Product Numbers (numeric and alpha-numeric)

06147 Electrical Moisture Sealant.....	14, 16	31 Scotch Heavy Duty Mining Tape.....	18-20
06149 Electrical Moisture Sealant.....	14, 16	31000 Lugs.....	147, 152-154
06290 Cable Tie Bases.....	170	312 Electrical Spring and Grounding Connectors.....	32, 34
10000 Connectors.....	147, 149	35 Vinyl Electrical Tape.....	4, 6-7
1000NS Fire Barrier Water Tight Silicone Sealant.....	199	3565 Commercial Label Protection Tape.....	30
1003 SL Fire Barrier Water Tight Silicone Sealant.....	199	371 Box Sealing Tape.....	28-29
1100 Foam Ear Plug.....	229	3710 Commercial Box Sealing Tape.....	28
1100 Tape.....	18	3732 Printed Box Sealing Tape.....	28
1110 Corded Foam Ear Plug.....	229	3734 Printed Box Sealing Tape.....	28
11000 Connectors.....	147, 150	3750 Premium Heavy Duty Box Sealing Tape.....	28
1200 Tape.....	18	3770 Printed Box Sealing Tape.....	28-29
13 Electrical Semi-Conducting Tape.....	9, 11-12	3900 Duct Tape.....	23, 26
130C Linerless Rubber Splicing Tape.....	9, 11-12, 19-20, 455	3939 Duct Tape.....	22, 25
133DC Professional HVAC Duct Tape.....	23, 25	4 Electrical Insulating Resin.....	325-327, 405-406
150 FireDam™ Acrylic Latex Sealant.....	198	40000 Lugs.....	147, 155-156
16-101 General Purpose Contact Cleaner.....	186	412 Electrical Spring and Grounding Connectors.....	32, 34
16-102 Quick Drying Contact Cleaner.....	186	4560 Armocast™ Structural Material.....	334, 458
1601 Insulating Sprays.....	186	4604 Silicone Rubber Termination Kit.....	287
1602 Insulating Sprays.....	186	4605 Silicone Rubber Termination Kit.....	287
1700 Vinyl Electrical Tape.....	6, 8	48 Thread Sealant and Lubricant.....	21-22, 24
1755 Cotton Friction Tape.....	22, 24	5-Way Penetrant.....	193, 195
200 FireDam™.....	211	50 All-weather Corrosion Protection Tape.....	17
200 Paper Tape.....	22, 24	51 All-weather Corrosion Protection Tape.....	17
2000 Electricians Duct Tape.....	23	5110-OS Cable Accessory Oil Stops.....	298, 374
20000 Connectors.....	147, 151	5110-OS Series Accessory Oil Stops.....	298, 374
2000T Connectors.....	147-148, 162-163, 311, 371-375	512 Electrical Spring and Grounding Connectors.....	32, 34
2000T CU Oil Stop Connectors.....	375	512G Electrical Spring and Grounding Connectors.....	32, 34
2000T-CU Connectors.....	148, 162-163	5400 Series Inline QS Splice Kits.....	342
2000T CU/AL Reducer Series Oil Stop Connectors.....	375	5411 QS-II Splice Kits.....	342
2000T-CU/AL Reducer Series Connectors.....	375	5411A QS-II Splice Kit.....	342
2001B QS Branch Splice.....	352	5411R QS-II Cable Repair Splice Kit.....	342
2104 Electrical Insulating and Sealing Compound.....	325-326, 405-406	5412 QS-II Splice Kits.....	342
2120-A Transparent Duct Tape.....	21, 23, 26	5412R QS-II Cable Repair Splice Kit.....	342
2123 Reenterable Electrical Insulating and Sealing Compound.....	325-326	5415A QS-III Cold Shrink Inline Cable Splices.....	347-348
2130 Flame Retardant Compound.....	325-326, 405-406	5416A QS-III Cold Shrink Inline Cable Splices.....	347-348
2135 Wet-Niche Potting Compound.....	311, 325-326, 405	5417A QS-III Cold Shrink Inline Cable Splices.....	347-348
2155 Rubber Splicing Tape.....	11, 13	5418A QS-III Cold Shrink Inline Cable Splices.....	347-348
22 Vinyl Electrical Tape.....	4-6, 8	5420 QS Cable Splices Kits.....	356
2200 Vinyl Mastic Pads.....	14	5432 Cable Splices.....	365
2210 Vinyl Mastic Pads.....	14	5433 Cable Splices.....	365
2228 Rubber Mastic Tape.....	14, 16, 19-20, 384, 386, 401	5450 QS Cable Splices Kits.....	356
2229 Mastic Tape Compound.....	14, 16	5451A Series.....	311, 357, 360
2230 Mastic Strip.....	16	5451R QS-II Cable Repair Splices Kit.....	357-358
2234 Scotch Cable Jacket Repair Tape.....	14-16	5456A QS-III Cold Shrink Cable Splices.....	361
2242 Linerless Splicing Compound.....	10-12	5457A QS-III Cold Shrink Cable Splices.....	361
2245 Heavy Duty All-Weather Duct Tape.....	22, 25	5458A QS-III Cold Shrink Cable Splices.....	361
2252 Cable Grounding Kit.....	400	5461 Cable Splices.....	365
2253 Cable Grounding Kit.....	400	5467A QS-III Cold Shrink Cable Splices.....	366
2254 Cable Grounding Kit.....	401	5467A-XB QS-II Cold Shrink Cable Splices.....	369
23 Rubber Splicing Tape.....	9, 11-12	5468A QS-III Cold Shrink Cable Splices.....	366
232 Performance Masking Tape.....	21-22, 24	5468A-XB QS-III Cold Shrink Cable Splices.....	369
234 Performance Masking Tape.....	21	5500 Series Molded Rubber Cable Splices.....	349
24 Electrical Shielding Tape.....	9, 11-12, 19-20	5513A Series QS-III Cold Shrink Cable Splices.....	350-351
25 Electrical Grounding Braid.....	9, 11-12	5514A Series QS-III Cold Shrink Cable Splices.....	350-351
2510 Electrical Insulation Cambric Tape.....	10	5515A Series QS-III Cold Shrink Cable Splices.....	350-351
2520 Electrical Insulation Cambric Tape.....	10	5516A Series QS-III Cold Shrink Cable Splices.....	350-351
27 Glass Cloth Electrical Tape.....	21, 24	5524A QS-III Cold Shrink Cable Splices.....	362
2929 Utility Duct Tape.....	23, 25	5525A QS-III Cold Shrink Cable Splices.....	362
300 Barricade Tapes.....	257-259	5526A QS-III Cold Shrink Cable Splices.....	362
3000 WT Fire Barrier Water Tight Silicone Sealant.....	199	5535A QS-III Cold Shrink Cable Splices.....	368
30000 Lugs.....	147, 152, 381	5536A QS-III Cold Shrink Cable Splices.....	368

5545A QS-III Cold Shrink Splice	370	82-F2 Inline Splice Kit for Flexible Power Cable	331
5550 Series Splice Kits	333	8210, N95 Respirator	223, 225
5600 Series Outdoor Termination Kits	285	8210 Film Tape	30
5610-A Series Silicone Rubber Termination Kits	288	8210 Plus, N95 Respirator	223, 225
5620K Series Indoor Termination Kits	283	8212, N95 Respirator	223, 225
5630K Series Outdoor Termination Kits	284	8214, N95 Respirator	224-225
5640 Series Outdoor Termination Kits	286	8240 Pouch Tape	30
5650 Series Outdoor Termination Kits	286	8247, R95 Respirator	223, 225
5670 Series Silicone Rubber Termination Kits	288	8420 Series Splice Kits	318
5680 Series Outdoor Termination Kits	285	8430 Series Splice Kits	318
5690K Series Outdoor Termination Kits	287	8440 Series Cold Shrink Silicone Insulators	318
5700 Series Tape Splice Kits	353	8450 Series Cold Shrink Cable Accessory Sealing Kits	299, 390
5700 Series Tape Termination Kits	290-291	8459 Series Cold Shrink Shield Adapter Kits	309, 391
5700A-MT QS-III Splice Kit	353-355, 364, 370	8460 Series Cold Shrink Shield Adapter Kits	309, 391
5700A-MT Series Splice Kit	341, 354	8 Hi-Amp Accessory Grounding Kit	399
5730-5731 Low Voltage Inline Splice Kits	334	85 Series Multi-Mold Resin Splice Kit	323
5732-5735 Low Voltage Inline Splice Kits	334	85-14CP Multi-Mold Resin Splice Kit	323
5740 Series Inline Splice Kit	332	8511 N95 Respirator	222, 225
5750 Series Three-Conductor Inline Splicing Kit	339	8560 Series Cold Shrink Silicone Rubber Cable Breakout Boots	392-393
5760 Cold Shrink Cable Splices	311, 354	8654ES Sanding and Fiberglass Respirator	225
5760 Series Three-Conductor Inline Splicing Kit	340	88 Vinyl Electrical Tape	4, 6-7
5777A-MT Cold Shrink Cable Splices	341, 355	8884 Stretchable Tape	30
5800-Pb Series PILC Silicone Rubber Termination Kits	289-290	8886 Stretchable Tape	30
5810-B1-15 Industrial Loadbreak Brushing Insert	297	893 Industrial Grade Filament Tape	29
5810-PC-15 Industrial Insulated Protective Cap	297	897 Commercial Grade Filament Tape	29
5811-B1-25 Industrial Loadbreak Brushing Insert	297	8979, 8979N Performance Plus Duct Tape	21, 23, 25-26
5811-PC-25 Industrial Insulated Protective Cap	297	90 Hi-Strength Adhesive	185
5815-B Series Quick Adapter Modular Kits	305	90-B1 Wye Resin Splice Kit	324
5815-D Dead-End	303	9CK-300 Series	311, 333
5815-E Equipment Connection	302-303	A-3 Electrician's Abrasive Roll	411
5815-S Basic Splice	302	B Electrical Spring Connector	32
5815-T Tap (Add On)	302	BBI-A Series Bus Bar Tubing	439-440
5815-TW T-Wrench	304	B/G+ Performance Plus Wire Connectors	32
5831 Sheath Seal Kit	395	Bump Cap	233, 235
5832 Sheath Seal Kit	395	C-FL550DD Chemical Sorbent-Folded	245, 247, 249
5841 Cold Shrink Sheath Seal Kit	395	C-PD914DD Chemical Sorbent Pads	245, 250
5842 Cold Shrink Sheath Seal Kit	395	C-RL15150DD and C-RL38150DD Chemical Sorbent Rolls	245, 250
6020K Series Indoor Termination Kits	283-284	C-SKFL5 Chemroll 5-Gallon Chemical Sorbent Spill Kit	247, 249
66R Vinyl Electrical Tape	5-6, 8	C-SKFL31 Chemical Sorbent Folded 31 Gallon Spill Kit	247
69 Glass Cloth Electrical Tape	21, 24	CC Series Cable Cleaning System	410-411
6910 Cloth Gaffers Tape	23, 26	CI Series Connectors	147-148, 159, 342, 345, 349, 356, 358-360, 366
6969 Duct Tape	22, 25	CI-A and CI-840 Series Connectors	366
70 Self-Fusing Silicone Rubber Electrical Tape	9, 11-12	CI-A Series Connectors	159-160, 356-360, 366
70HDT Self-Fusing Silicone Heavy Duty Triangular Electrical Tape	9-12	CI-T Series Transition Connectors	160, 346
72 Spray Adhesive, Blue	184	CIR Connectors	147-148, 161, 345, 360
72-N Series Inline Splice Kits	320	CIR Series Repair Connectors	345, 360
74 Fast Foam Spray Adhesive, Clear	184	CL Cable Loosener	194
7440 Scotch-Brite™ Hand Pads	410-411	CP 25WB+ Fire Barrier Sealant	198
75 Repositionable Spray Adhesive	184	CPT Series Corrosion Protection Kit	383, 408
76 High Tack Spray Adhesive	184	CS-195+ Fire Barrier Composite Sheet	209
7600 Three Conductor Cable Termination Kits	271	CS500Pb Series Cable Splices	371
7600-S-3-RJS Series	272, 275	DBR and DBY Low Voltage Splices	317
7600-S-3G Series	272-273	E-5A-4 Interam™ Mat	201-210
7600-S-3W Series	272, 278	E-9BM Crimping Tool	38, 449
7600-T-3-RJS Series	272, 276	E-9C Crimping Tool	38, 449
7600-T-3G Series	272, 274	E-9E Crimping Tool	38, 449
7600-T-3W Series	272, 279	E-9R Crimping Tool	38, 449
7690-S-3-INV-3G Series	274	E-9Y Crimping Tool	38, 449
7690-S-INV-3-RJS Series	272, 277	E-FIS Intumescent Strip	208
7690-S-INV-3W Series	272, 280	EC-Series Cold Shrink End Caps	397-398
77 Fire and Electric Arc Proofing Tape	10-12	Electrical Tapes Training Kit	5
77 Spray Adhesive	185	EPS-300 Tubing	416-417, 435-437
78-R Series Reenterable Inline and Tap Splice Kits	321	Fire Barrier Cast-In Devices	203, 205-206
80 Contact Neoprene® Adhesive	185	FB Fire Barrier Packaging Material PM 4	200
82-A Series Inline Resin Splice Kit	330	FB Fire Barrier Pass-Through Products	204
82-B1 Wye Resin Splice Kit	330	FB Fire Barrier Pillow Technology	201-202
82-BF1 Flexible Power Cable Tap Splice Kit	324	Fire Barrier Sealants	198, 200
82-F1 Inline Splice Kit for Flexible Power Cable	331	FP-301 Thin-Wall Tubing	416, 423-425, 428, 432

FS-195+ Fire Barrier Wrap/Strip	207-208	P-130, P-190, P380 Chemical Sorbent Rolls	246, 250
G Electrical Spring Connector	32	P-200, P-208, P212 Chemical Sorbent Mini-Booms	246, 250
GS Series Ground Strap Assembly	402	P-300 Chemical Sorbent Pillow	246
GSHA-8 QT-II Hi-Amp Grounding Accessory Kit	400	P-500 Chemical Sorbent Particulate	246
GSK Shield Grounding Accessory Kits	403	P-DC22DD Petroleum Sorbent Drum Cover	242
H-10 Filament Tape Dispensers	29	P-FL550DD Petroleum Sorbent-Folded	241, 248-249
H-122 Box Sealing Hand Dispensers	28	P-SKFL5 Petroll 5-Gallon Petroleum Sorbent Spill Kit	248-249
H-180 Box Sealing Roll-on Dispensers	28-29	P-SKFL31 Petroleum Sorbent Spill Kit	248
H-29 Wire Connectors	34	PanelSafe™ Lockout System Accessories	252-253
H-30 Wire Connectors	34	QS-2000-3T Series Cold Shrink Splices	373
H-31 Wire Connectors	34	QS-2000-3T-WS Series Cold Shrink Splices	373
H-33 Wire Connectors	34	QS-2000T Series Cold Shrink Splices	372
H-35 Wire Connectors	34	QS-2013-3T-3C Series Cold Shrink Splices	374
HDBB Heat Shrinkable Cable Breakout Boots	396	QS-III Cable Repair Splices	337
HDCW Wraparound Heat Shrink Cable Repair Sleeves	387	QSLV-M Cold Shrink Low Voltage Connector Insulator	319
HDT Heavy-Wall Flame-Retardant Cable Sleeves	420	R Electrical Spring Connector	32
HP-100 Petroleum Roll	242	RC-1 Fire Barrier Restricting Collar	207
HP-156 and HP-157 Petroleum Sorbent Pads	241	Rejacketing Kits	271, 281, 383-384, 388, 394
HP-255 and HP-256 Petroleum Sorbent Pads	241	R/Y+ Performance Plus Wire Connectors	32
HP-500 Petroleum Sorbent Roll	244	S-11 Insulated Electrical Crimp Sleeve Connectors	37
HP-556 and HP-557 Petroleum Sorbent Pads	244, 250	S-31 Insulated Electrical Crimp Sleeve Connectors	37
HSJ Heat Shrink Splice Jacket Kits	384	SC Aerial Stem Connectors	148, 158
IAL-3 Airport Lighting Connector Sealing Kit	329	Scotch-Brite Hand Pads 7440 Series	410-411
IC 15WB Fire Barrier Sealant	198	Scotch® Transparent Duct Tape 2120-A	21, 23, 26
IDC Connectors for Communication Applications	38	SDR Dispenser Refill Rolls	176
IDC Connectors for Electrical Applications	38	Sealing and Grounding Products	383, 401
IMCSN 25-Foot Reels	421	SG-2 Hi-Amp Splice Grounding Accessory Kit	399
IMCSN Medium-Wall Cable Sleeves	421	SG-3 Hi-Amp Splice Grounding Accessory Kit	399
Insulation Displacement Connectors	31, 38-39, 41, 193, 442	SI-1 Cable Stacker	171
IR Probe	214, 219	SIFS-1 Firing Strip Cable Stacker	171
IR-1100 Infrared Thermometer	214, 217, 219	SJ-1A Cold Shrink Splice Jacket Kits	384
IR-1400 Infrared Thermometer	214, 219	SJ-2A Cold Shrink Splice Jacket Kits	384
IR-1400IS Infrared Thermometer	214, 219	SJ-3A Cold Shrink Splice Jacket Kits	384
IR-500 Infrared Thermometer	214, 217-219	SJ-FB Cold Shrink Foldback Splice Jacket Kits	384
IR-60CFO Infrared Thermometer	214-215, 219	SJ-SS Cold Shrink Stacked Sleeve Splice Jacket Kits	384
IR-60EXCFO Infrared Thermometer	214-215, 219	SKE Heavy-Duty End Caps	398
IR-60EXPL2 Infrared Thermometer	214-215, 217	SLP Fire Barrier Self-Locking Pillows	202
IR-60L2 Infrared Thermometer	214-215, 217, 219	SMP Marker Pens	179, 181
IR-999 Infrared Thermometer	214, 217, 219	SPB Pre-Printed Wire Marker Books	179
ITCSN 25-Foot Reels	419	SRP-Chem Chemical Sorbent Spill Response Pack	247
ITCSN Counter Merchandiser Assortment	420	SRP-Petro Petroleum Sorbent Spill Response Pack	248
ITCSN Heavy-Wall Cable Sleeves	418	SS Series Grounding Kits	388
ITCSN Tamper Evident Bags	419	STD Tape Dispenser	176
Latex Paint and Odor Respirator	225	STD Wire Marker Tape Dispenser	176
LBP-15 Probe Replacement Kit	297	STD-TAG Dispenser	174
M Series Jacket Repair Kits	388-389	Super 33+ Vinyl Electrical Tape	1, 4, 6-7, 291, 395, 401, 408
M-DC22DD Maintenance Sorbent Drum Cover	240	SWB Write-on Books	179, 181
M-FL550DD Maintenance Sorbent-Folded	238	SWB Write-On Wire Marker Books	181
M-MB304, M-MB308, M-MB312, Maintenance Sorbent Mini-Boom ...	239, 250	T-4, T-8 and T-12 Petroleum Sorbent Mini-Booms	242
M-PD1520DD, M-PD720GG Maintenance Sorbent Pads	239	T-30 Petroleum Sorbent Mini-Pillow	242
M-PL715 Maintenance Sorbent Pillow	239	T-49 Interam™ Tape	209
M-RG36300E, M-RGC36100E Maintenance Sorbent Rugs	240	T-100, T-190 Petroleum Sorbent Rolls	243
M-RL15150DD, M-RL33150DD, M-RL38150DD Maintenance Sorbent Rolls ...	239, 250	T-126 Petroleum Sorbent Sweep	243
MB Series Mounting Brackets	407	T-151, T-156, T-157 Petroleum Sorbent Pads	243
MB-1 Cross-Arm Mounting Bracket	407	T-240 Petroleum Sorbent Pillow	244
MBS Series Mounting Brackets	407	T-270 Petroleum Sorbent Boom	243
MDT Medium-Wall, Flame-Retardant Cable Sleeves	422	T-280 Petroleum Sorbent Double Boom	243
MGC	46	Three Conductor Cable 7600 Series	271-280
Mining Tape	18-20	T/R+ Performance Plus Wire Connectors	32
Moldable Putty Pads+, Stix	202	TS Series Cable Splices	335
MPP Fire Barrier Moldable Putty+	202	TS Series Low Voltage Tape Splicing Kits	338
MW Tubing	416-417, 438	TS Series Three-Conductor Inline Splicing Kits	335
Novec Aerosol Cleaners	183, 188-189	TS-15 kV Series	336
Nylon Insulated Closed End Connectors	37, 131-132	T/Y+ Performance Plus Wire Connectors	32
O/B+ Performance Plus Wire Connectors	32	UF Splice Kit	311, 328
OS Lugs	148	Ultra PPD Fire Barrier Ultra Plastic Pipe Device	208
P95 Dual Cartridge Respirator	224-225	WCD Wire Connector Drivers	33
P-110 Chemical Sorbent Pads	246, 250	Welding Respirator	221, 223-225

Wire Pulling Lubricant Wintergrade 192, 194-195
WL Wire Pulling Lubricant Gel 194
WLC Wire Pulling Lubricant Communications 194
WLX Wire Pulling Lubricant Wax/Gel 192
Y Electrical Spring Connector 32

Index

Generic Alphabetical Description

A

A-3 Abrasive Roll	411
Adhesives	17, 21, 183-185, 187
Aerosols	183
Airport Lighting Connector Sealing Kits	329
Animal Guard	383, 412-413
Armorcast™ Structural Material	334, 340-341, 355, 364, 369, 458

B

Barricade Tapes	221, 257-260
Basic Splice	302
Books, Wire Marker	178-179, 181
Box Sealing Tapes	27-29
Bundling Tape	6, 22-23, 26, 29

C

Cable	
Accessory Oil Stops	298, 374
Accessory Products	327, 383
Adapter Kits	294, 301-302, 305-306, 309-310, 352, 391
Breakout Boots	383, 392-393, 396
Cleaning System	410-411
Grounding Kits	299, 309, 383, 388, 390-391, 395, 400, 403
Looseners	191-192, 194
Repair Splices	337, 358, 384, 387
Sleeves	384, 387, 392-394, 399, 408, 418, 420-422, 454, 465
Splice	320-321, 330, 334-335, 341, 347-351, 354-355
Stackers	165, 171
Tie Bases	165, 170
Ties and Assortment Pack	165-166, 169
Caution Tapes	258-259
Chemical Sorbents	
Folded, High Capacity	245
Kits and Response Packs	246-247
Mini-Booms	245
Pads	245
Pads, High-Capacity	244
Particulate	245
Pillow	245
Rolls	246
Rolls, High-Capacity	245
Chemical Spill Kits	246, 249
Chemroll 5-Gallon Chemical Spill Kit	247
Cloth Gaffers Tape	21, 23, 26
Coatings and Protectants	191, 196
Cold Shrink	
Cable Accessory Sealing Kits	299, 390
End Caps	319, 390, 397-398
Indoor Tubular Terminations	266-267
Outdoor Skirted Terminations	271-272
Silicon Rubber Terminations	267-290
Sheath Seal Kits	395
Shield Adapter Kits	309-310, 391
Silicone Insulators	283, 318, 393
Silicone Rubber Cable Breakout Boots	392-393
Stacked Sleeve Kits	384-386
Splice Kits	371-374
Splices	312, 318, 332-337, 339-341, 347, 350, 354-355, 361-362, 364, 366, 368-370

Communication	
MS2™ Splicing System	450-451
MS2™ Modular Splicing Rigs and Equipment	450-451
710 Splicing Systems, Rig Tools and Accessories	459
Connectors	
CI and CI-A Series	160
CIR Series	147-148, 161
CI-T Series	
Copper	149-151
Crimp Sleeve	31, 37, 131
Insulation Displacement	31, 38-39, 41, 193, 442
Metal Clad Jacketed Cable	410
Nylon Insulated Closed End	37, 131-132
Performance Plus Wire	31-34
Reducer Series	148, 162, 375
Spring	31-32, 34-35, 38, 144, 166, 179, 193, 391
Stem	147-148, 157-158
Transition	160, 346
Wire	10, 31-39, 42-43, 47-48, 50-51, 107-112, 129, 131-133, 135, 143-145, 149-151, 166, 179, 193, 297, 309, 311, 317, 321, 328, 333, 336-337, 340, 349-350, 353-354, 362, 368, 370, 372-374, 391, 442-444, 446, 449
Constant Force Springs	381, 399, 403
Contact Cleaners	183, 186, 188-189
Contact Neoprene® Adhesive	185
Copper/Aluminum	151, 155
Corrosion Protection Kits	408
Corrosion Protection Tapes	1, 17-18
Counter Merchandiser Assortments	420
CP-1 Parallel Clamp	158
Crimping Tools	37-38, 45, 147, 448-449
Cross-Arm Mounting Brackets	407

D

Dead-End Modular Kit	302-303
Diagnostic and Detection Products	213
Direct Bury Products	317
Dispensers	
Tape	28-29, 173, 175-176
Wire Marker	173-176
Write-On	173-175
Duct Tape	21-23, 25-26

E

Earmuff	227, 229
Ear Plug, Corded	229
Electrical Coating	183, 196, 396
Electrical Insulation Putty	10-12, 14, 16, 395
Electrical Spring Connectors	32, 34
Electrician's Bundling Tape	23, 26
Electronic Degreaser	188-189
Electrostatic Animal Guard	383, 412
End Caps, Heavy-Duty	398
Environmental Safety	188, 221, 236, 248
Equipment Connections	214, 312
Eye and Hearing Protection	221

F

Face and Head Protection	221, 233, 235
--------------------------------	---------------

Fastening Products 165
 Filament Tapes 29
 Fire Barrier
 Cast-In Devices 203, 205-206
 Composite Sheets 209
 Moldable Putty 201-202
 Mortar 211
 Packing Material 198, 200
 Pass-Through Products 204
 Pillow Technology 201
 Restricting Collar 207
 Sealants 198, 200
 Ultra Plastic Pipe Device 207
 Fire Protection Products 197
 FireDam™ Acrylic Latex Sealant 198
 FireDam™ Spray 211
 Flat Cable 9, 171, 311, 328
 Flux Remover 188-189
 Foam Fast Spray Adhesive 184
 Folded Sorbents and Kits 245, 247-249
 Furring Strip Cable Stackers 171

G

Ground Assembly 294, 305, 402
 GSK Shield Grounding Accessory Kits 403

H

HDCW Wraparound Heat Shrink Cable Repair 387
 Head Protection Products 235
 Heat Shrink
 Cable Breakout Boots 383, 392-393, 396
 Cable Repair 15, 311, 328, 387
 Products 50-51, 328, 423
 Splice Jacket Kits 384, 386
 Splices 416, 418, 420, 423
 Hi-Amp Accessory Grounding Kits 399-401
 High Tack Spray Adhesive 184-185
 Highland™ Commercial Box Sealing Tape 28
 Highland™ Vinyl Electrical Tape 8
 Highland™ Wire Connectors 31-34
 Hi-Strength Adhesive 185

I

Indoor Termination Kits 283-284
 Industrial Loadbreak Bushing Inserts 297
 Industrial Loadbreak Elbow and Accessories 293
 Infrared Thermometers 213-217, 219
 Inline Splice Kits 312, 320-321, 328, 333-334, 341-342, 353, 355-356, 364, 369-370, 384
 Inline Splice Kits for Flexible Power Cable 331
 Insulating and Sealing Compounds 2, 383, 405
 Insulating and Splicing Tapes 1, 9, 11-12, 327
 Insulating Sprays 183, 186
 Insulation Displacement Connectors and Tools 31, 38
 Interam Tape and Mat 209

J

Jacket Repair 1, 6, 14-16, 19, 325, 386-387, 389

K

Kits
 Airport Lighting Connector Sealing 329
 Cable Adapter 294, 301-302, 305, 347, 352
 Cable Grounding 383, 388, 390, 395, 399-400
 Chemical Spill 246-247, 249
 Corrosion Protection 1, 269, 325, 383, 408

Dead-End Modular 302-303
 Flexible Power Cable Tap Splice 324
 Folded Sorbents and Kits 245, 247-249
 Hi-Amp Accessory Grounding 399-400
 Inline Splice 312, 320-321, 328, 331, 333-334, 337, 341-342, 353, 355-356, 364, 369-370, 380, 399, 456
 Jacket Repair 1, 19, 325, 386, 389
 Loadbreak Bushing Insert 293
 Modular Splicing 301-302, 305
 Multi-Mold Resin Splice 325
 Outdoor Termination 270, 282-287
 Phase Rejacketing 281, 383, 394
 Probe Replacement 297
 Quick Adapter Modular 305-307
 Safety Sock Grounding 383, 388
 Sheath Seal 390, 395, 452
 Shield Grounding Accessory 403
 Silicone Rubber Termination 269, 271, 282-283, 287-290
 Splice 19-20, 148, 160, 162-163, 298, 301-302, 312, 317-318, 320-321, 325, 328, 331, 333-335, 337-338, 340-342, 344, 347, 349-350, 352-353, 355-357, 361-362, 364-366, 368-375, 379-381, 383-386, 388-389, 395, 399, 441, 452, 455-456, 461
 Splice Jacket 301, 342, 344, 383-386, 389
 Tape Splice 19-20, 312, 340, 353, 368, 370, 380, 384, 395
 Tape Termination 270, 282-284, 287-288, 291
 Termination 142, 157, 266-271, 281-291, 381, 400, 403, 408, 441, 472-473
 Three-Conductor Inline Splicing 335, 340-341, 355, 364, 369
 Tool 142, 294, 461, 473
 UF Splice 328
 Wye Resin Splice 324, 330

L

Label Protection Tapes 27, 30
 Latex Paint and Odor Respirator 225
 Linerless Electrical Rubber Tapes 9
 Linerless Splicing Compound 10-12
 Loadbreak Bushing Inserts 297
 Loadbreak Elbows 293
 Loadbreak Elbow Accessories 297
 Low Voltage Splices 311, 317-319, 334, 371
 Lubricants and Cable Looseners 191-192, 194
 Lubricants and Coatings 191
 Lugs and Connectors 8, 10, 147, 151

M

Maintenance Sorbents
 Drum Cover 240
 Folded 241
 Mini-Booms 239
 Pads 239
 Pillow 239
 Rolls 239
 Rugs 240
 Mastic 1-2, 14-16, 19-20, 261, 294, 298-299, 305, 310, 318-319, 374, 378-382, 384, 386, 388, 390-391, 399, 401, 408, 465
 Metal Clad Jacketed Cable Connectors 409
 Mining Tape 18-20
 Modular Splicing 301-302, 305, 450
 Moisture Guard Connector 46
 Moldable Putty Pads and Stix 202
 Molded Rubber Splices 159-160, 311-312, 342, 349, 356, 365, 384, 399
 Mortar 211
 Motor Lead Connections 377-380, 382
 Mounting Brackets 203-204, 383, 407

N

Non-Shielded Cable Motor Lead Connections.....	377, 379
Non-Shielded Cold Shrink Splices.....	332, 334-335, 339
Non-Shielded Resin Splices.....	330-331, 339
Novec Aerosol Cleaners.....	183, 188-189
Nylon Insulated Closed End Connectors.....	37, 131-132

O

Oil Seal Lugs.....	147, 157, 290
Overhead Conductor Animal Guard Cover.....	413

P

Packaging Adhesives.....	183-184, 187
Packaging and Palletizing Tapes.....	1, 27
PanelSafe™ Lockout System.....	251-256
Paper Tape.....	21-22, 24, 373
Parallel Clamp.....	147, 158
Personal Safety Products.....	221
Petroleum Sorbents	
Boom.....	241
Double Boom.....	243
Drum Cover, High Capacity.....	242
Folded, High Capacity.....	241
Mini-Booms.....	246
Mini-Pillow.....	242
Pads.....	241
Pads, High Capacity.....	241
Particulate.....	242
Pillow.....	241
Rolls.....	242-244
Rolls, High Capacity.....	242, 244
Static Resistant Pads.....	244
Static Resistant Roll.....	244
Sweep.....	243
Phase Rejacketing Kits.....	281, 394
Phase Rejacketing System.....	383, 392-393
PILC Splices.....	311-312, 371-374
Pillows.....	197, 201-202, 236, 242, 246, 249-250
Plastic Pipe Devices.....	205, 208
Preparation and Cleaning.....	291, 327, 383, 410-411
Probes.....	297
Putty.....	1, 10-12, 14, 16, 18, 198, 201-202, 395, 405

Q

QT-III 69kV/72.5kV.....	271
Quick Adapter Modular Kit.....	306-307

R

Repositionable Spray Adhesive.....	184
Resin Pressure System.....	327
Resin Splices.....	311-312, 320-321, 323-324, 327, 330-331, 339-340, 354
Resin.....	29, 151, 311-312, 317, 320-321, 323-328, 330-331, 334-335, 339-340, 354, 389-390, 395, 405-406, 458
Respirators.....	221-222, 225-226
RJS.....	271, 392-393
Rubber Electrical Tapes.....	2, 5, 9
Rubber Splices.....	311-313, 342-343, 345-346, 349, 356, 360, 365-366

S

Safety and Protection Products.....	221
Safety Goggles.....	230
Safety Sock Grounding Kits.....	383, 388
Sanding and Fiberglass Respirators.....	222
Scotch®	
Box Sealing Hand Dispensers.....	28

Box Sealing Roll-On Dispensers.....	28-29
Box Sealing Tape.....	27-29
Commercial Label Tape.....	30
Electrical Grounding Braid.....	9, 11-12
Electrical Insulating Varnished Cambric Tape.....	10
Electrical Moisture Sealant.....	14, 16
Electrical Semi-Conducting Tape.....	9, 11-12, 20
Electrical Shielding Tape.....	9, 11-12, 19-20
Electrician's Abrasive Roll.....	411
Filament Tape.....	29
Film Tape.....	1, 30
Fire and Electric Arc Proofing Tape.....	10-12
General Purpose Masking Tape.....	21-22, 24
Glass Cloth Electrical Tape.....	21, 24
Heavy Duty All-Weather Duct Tape.....	22, 25
Insulating Spray.....	186
Linerless Rubber Splicing Tape.....	9-12, 19-20, 455
Mastic Strip.....	16, 401
Pouch Tape.....	30
Premium Heavy Duty Box Sealing Tape.....	28
Printed Box Sealing Tape.....	28-29
Professional HVAC Duct Tape.....	23, 25
Rubber Mastic Tape.....	1, 14, 16, 19-20, 384, 386, 399, 401
Rubber Splicing Tape.....	9-13, 19-20, 455
Self-fusing Silicone Heavy Duty Triangular Electrical Tape.....	10-12
Self-fusing Silicone Rubber Electrical Tape.....	9-12
Stretchable Tape.....	30
Tape Splice Kits.....	353, 384
Tape Termination Kits.....	288, 291
Thread Sealant and Lubricant.....	21-22, 24
Transparent Duct Tape.....	21, 23, 26
Vinyl Electrical Tape.....	1, 4-8, 19-20, 291, 395, 401, 408
Vinyl Insulation Tape.....	5
Vinyl Mastic Pads.....	14
Vinyl Mastic Roll.....	14, 401
Scotch-Brite Hand Pads.....	410-411
Scotchcast™	
Cable Repair Compound.....	326, 389, 406
Electrical Insulating and Sealing Compound.....	325-326, 405-406
Electrical Insulating Resin.....	325-327, 405-406
Flame Retardant Compound.....	325-326, 405-406
Flexible Power Cable Tap Splice Kit.....	324
Inline Resin Splice Kit.....	330-331
Inline Splice Kits.....	320-321, 328
Multi-Mold Resin Splice Kits.....	325
Reenterable Electrical Insulating and Sealing Compound.....	325-326
Reenterable Inline and Tap Splice Kits.....	321
Resins.....	326, 406
Wet-Niche Potting Compound.....	325-326, 405
Wye Resin Splice Kit.....	324, 330
ScotchCode™	
Dispenser.....	142, 173-176
Dispenser Refill Rolls.....	176
Marker Pens.....	179, 181
Pre-Printed Wire Marker Books.....	179
Tape Dispensers.....	173, 176
Wire Marker Tape Dispensers.....	176
Write-On Dispensers.....	173, 175
Write-On Books.....	173, 179, 181
Scotchfil™ Electrical Insulation Putty.....	10-12, 14, 16, 395
Scotchkote™ Electrical Coating.....	196
Scotchlok™	
Connectors and Lugs.....	147
Connectors for Communication Applications.....	38
Electrical Spring Connectors.....	32, 34
Reducer Connectors.....	162, 375
Scotchrap™	
Corrosion Protection Tapes.....	17-18

Pipe Primer..... 17-18
 Scotch-Seal Mastic Tape 14, 16
 Sealants 197-198, 200
 Sealing and Grounding Products 383, 401
 Sealing and Insulating Tapes 1, 14, 16
 Sheath Seal Kits 395
 Sheets and Mats..... 209
 Shield Grounding Accessory Kits 403
 Shielded Cable Motor Lead Connections 380
 Shielded-Tape, Wire, and UniShield® Cold Shrink Splices 333
 Shipping-Mate™
 Case Sealing Adhesive 187
 Labeling Adhesive..... 187
 Silicone Rubber Termination Kits 287-290
 Silicone Sealants 199
 Sorbent-Folded Spill Kits, Petroleum and Chemical 241, 245
 Special Use Tapes 1, 21-22, 24
 Splice Jacket Kits 384-386
 Splice Kits..... 148, 160, 162-163, 301-302, 312, 318, 320-321, 325, 328, 333-335, 337, 341-342, 344, 347, 353, 355-357, 361-362, 364, 366, 368-373, 375, 383-386, 455-456, 461
 Splice Rejacketing 301, 383-384, 399
 Splice Repair 148, 328, 337, 342, 344, 358, 383-384, 387, 389
 Splices..... 2, 6, 10-11, 22, 31, 39, 50, 139, 151, 158-160, 301, 309, 311-313, 317-321, 323-324, 327-328, 330-351, 353-356, 358, 360-362, 364-374, 377-385, 387, 389, 391, 394, 399, 405, 416, 418, 420-423, 435, 444, 452, 454, 456, 459-461, 465, 468
 Spray Adhesives 183-185
 Spring Connectors and Tools 31-32
 Stem Connectors 147-148, 157-158
 Super Spray Adhesive..... 185

T

Tamper Evident Bags 419, 424
 Tapes
 Barricade..... 221, 257-260
 Box Sealing 27-29
 Bundling 1, 6, 22, 29
 Caution Tapes..... 258
 Cloth Gaffers..... 21
 Corrosion Protection 1, 17-18, 196
 Duct Tape..... 21-22
 Electrical Semi-Conducting..... 9, 11-12
 Electrical Insulating Varnished Cambric..... 10
 Electrical Shielding 9, 11-12, 19
 Electrical Tape Training Kit 6-7
 Filament 29
 Film 1, 30, 176
 Fire and Electric Arc Proofing..... 10-12
 Glass Cloth Electrical 21, 24
 Highland™ Vinyl Electrical 8
 Insulating and Splicing..... 1, 9-12, 327
 Interam..... 209
 Jacket Repair 1, 6, 14, 16, 19
 Label Protection..... 27, 30
 Linerless Electrical Rubber..... 9-10
 Linerless Rubber Splicing 9-12, 19
 Mining 1, 19
 Outdoor Masking and Stucco Tape..... 23, 25
 Packaging and Palletizing 1, 27
 Paper..... 21-22, 24
 Value Duct Tape 21-23, 25-26
 Performance Masking..... 21-22, 24
 Pouch 27, 30, 176
 Rubber Mastic 1-2, 14, 16, 19
 Rubber Splicing 9-12, 19
 Sealing and Insulating..... 1-2, 14, 16-17
 Self-fusing Silicone Rubber Electrical..... 9-12

Shielded 262, 264, 266-268, 283-284, 287, 291-292, 297, 301-303, 309-311, 313-316, 320-321, 327, 333, 335-337, 340-341, 347, 349-351, 353-355, 362, 364, 368-370, 372-374, 380-385, 388, 391-393, 399-301, 403
 Special Use..... 1, 21-22, 24, 196
 Splice 5-6, 9, 11, 16, 19, 327
 Stretchable..... 30
 Vinyl Duct Tape..... 21-23, 25-26
 Temflex™
 Temflex™ Cotton Friction Tape..... 22, 24
 Temflex™ Rubber Splicing..... 11, 13
 Temflex™ Vinyl Electrical..... 6, 8, 19-20
 Termination Vinyl Electrical 291, 401, 408
 Terminals 47-58, 63-107, 109-110, 113-130, 133-145, 166, 179, 193, 321, 433, 441, 452, 454
 Terminals, Kits and Tools..... 47
 Termination Kits 157, 266-271, 282-291, 381, 403, 441, 472
 Stud Size Chart..... 47, 146
 Terminations 11, 148, 157-158, 261-263, 265-268, 270, 274, 276, 279, 283-284, 287-291, 309, 381, 383, 391-393, 400, 407, 418, 420-423, 438
 Three-Conductor Cable..... 315-316, 334-335, 339-341, 354-355, 369, 374
 Three-Conductor Inline Splicing Kits 335, 341, 355, 364, 369
 Tool Kits 461
 Tubing
 Adhesive-Lined..... 50, 415-416, 435
 Bus Bar 415-416, 421, 439-440
 Heavy-Wall 415-416, 418, 421

U

UF Splice Kit 311, 328

V

Vinyl Electrical Tapes..... 1-2, 4-7, 196

W

Wire Connectors . 31-34, 36-38, 42-43, 50, 106-110, 112, 129, 132-133, 143, 145, 179, 193, 309, 317, 321, 370, 391, 442, 444, 446, 449
 Wire Connector Drivers 33
 Wire Marker Tape (refills)..... 178
 Welding Respirator 221, 223-225
 Wire Marker Dispensers..... 175-176
 Wire Marking and Identifying 173
 Wire Pulling Lubricant Communications 192, 194-195
 Wire Pulling Lubricant Gel 192, 194-195
 Wraps and Collars..... 208
 Wrapstrip..... 207

Z

Zinc Spray 196

Terminals

(Alphabetical Description)

Adapters

Non-Insulated Male Rectangular Tongue.....	127
Vinyl Insulated Double Female Disconnect.....	127

Block Forks

Non-Insulated Butted Seam 22-18 AWG.....	86
Nylon Insulated with Insulation Grip 12-10 AWG.....	92
Nylon Insulated with Insulation Grip 16-14 AWG.....	92
Nylon Insulated with Insulation Grip 22-18 AWG.....	91
Vinyl Insulated Brazed Seam 12-10 AWG.....	89
Vinyl Insulated Brazed Seam 16-14 AWG.....	89
Vinyl Insulated Brazed Seam 22-18 AWG.....	88
Vinyl Insulated Butted Seam 12-10 AWG.....	91
Vinyl Insulated Butted Seam 16-14 AWG.....	90
Vinyl Insulated Butted Seam 22-18 AWG.....	90

Butt Connectors

Heat Shrink Seamless.....	110
Large Gauge Non-Insulated Copper Seamless.....	108
Non-Insulated Brazed Seam.....	107
Non-Insulated Seamless.....	107
Nylon Insulated Seamless.....	109
Nylon Insulated with Insulation Grip.....	110
Nylon Insulated with Insulation Grip Moisture Resistant.....	110
Vinyl Insulated Brazed Seam.....	109
Vinyl Insulated Butted Seam.....	109
Vinyl Insulated Seamless.....	108

Female Disconnects

Fuseholder Polypropylene Insulated Self-Stripping.....	120
Heat Shrink Nylon Fully Insulated.....	120
Non-Insulated Butted Seam.....	113-114
Non-Insulated Butted Seam Flag.....	114
Non-Insulated Interlock Barrel.....	113
Nylon Fully Insulated Butted Seam.....	117
Nylon Fully Insulated Interlock Barrel.....	118-119
Nylon Fully Insulated with Insulation Grip.....	118-119
Nylon Fully Insulated with Insulation Grip Interlock Barrel.....	119
Nylon Insulated with Insulation Grip.....	115-119
Nylon Insulated with Insulation Grip Bullet Style.....	117
Nylon Insulated with Insulation Grip Interlock Barrel.....	116, 119
T-Tap Nylon Insulated Self-Stripping.....	119
Vinyl Insulated Butted Seam.....	114, 125-126
Vinyl Insulated Interlock Barrel.....	115
Vinyl Insulated with Insulation Grip.....	116

Flags Non-Insulated Ring Type.....

Flanged Block Forks

Non-Insulated Brazed Seam.....	93
Non-Insulated Butted Seam.....	94
Nylon Insulated with Insulation Grip.....	97
Vinyl Insulated Brazed Seam.....	95
Vinyl Insulated Butted Seam.....	96

High Temperature

Block Forks - Butted Seam.....	129
Butt Connectors - Butted Seam.....	129
Female Disconnects - Butted Seam.....	130
Female Disconnects - Butted Seam Flag.....	130
Male Disconnects - Butted Seam.....	130
Ring Tongues - Butted Seam.....	128
Standard Forks - Butted Seam.....	129

Highland™

Block Forks - Non-Insulated.....	137
Block Forks - Vinyl Insulated.....	138
Butt Splices.....	139
Butt Splices - Vinyl Insulated.....	139
Female Disconnects.....	139-140, 142
Female Disconnects - Non-Insulated.....	139
Female Disconnects - Nylon Fully Insulated.....	140
Female Disconnects - Vinyl Insulated.....	140
Locking Forks - Non-Insulated.....	138
Locking Forks - Vinyl Insulated.....	138
Male Tabs - Non-Insulated.....	140
Male Tabs - Nylon Fully Insulated.....	141
Male Tabs - Vinyl Insulated.....	141
Rings - Non-Insulated.....	135
Rings - Vinyl Insulated.....	136
Snap Plugs - Vinyl Insulated.....	141
Snap Receptacles - Nylon Fully Insulated.....	141
Standard Forks - Non-Insulated.....	136
Standard Forks - Vinyl Insulated.....	137

Kits

Locking Forks

Heat Shrink Brazed Seam 12-10 AWG.....	106
Heat Shrink Brazed Seam 16-14 AWG.....	106
Heat Shrink Brazed Seam 22-18 AWG.....	105
Non-Insulated Brazed Seam 12-10 AWG.....	99
Non-Insulated Brazed Seam 16-14 AWG.....	101
Non-Insulated Brazed Seam 22-18 AWG.....	98, 101
Non-Insulated Butted Seam 12-10 AWG.....	100
Non-Insulated Butted Seam 16-14 AWG.....	100
Non-Insulated Butted Seam 22-18 AWG.....	99
Nylon Insulated with Insulation Grip 12-10 AWG.....	105
Nylon Insulated with Insulation Grip 16-14 AWG.....	104
Nylon Insulated with Insulation Grip 22-18 AWG.....	104
Vinyl Insulated Brazed Seam 12-10 AWG.....	102
Vinyl Insulated Butted Seam 12-10 AWG.....	103
Vinyl Insulated Butted Seam 16-14 AWG.....	103
Vinyl Insulated Butted Seam 22-18 AWG.....	102

Male Disconnects

Heat Shrink Nylon Fully Insulated Butted Seam.....	124
Non-Insulated Butted Seam.....	114, 121
Nylon Fully Insulated Butted Seam.....	123-124
Nylon Fully Insulated with Insulation Grip.....	124
Nylon Insulated with Insulation Grip.....	122-124
Nylon Insulated with Insulation Grip Bullet Style.....	123
Vinyl Insulated Butted Seam.....	121-122
Vinyl Insulated Butted Seam Bullet Style.....	122

Multi-Stack Disconnects Vinyl Insulated Butted Seam.....

Multi-Stud Ring Tongues

Nylon Insulated with Insulation Grip.....	78
Vinyl Insulated Brazed Seam.....	78

Parallel Connectors

Non-Insulated Seamless.....	133
Vinyl Insulated Butted Seam.....	133

Pin Terminals

Nylon Insulated with Insulation Grip.....	134
Vinyl Insulated Butted Seam.....	134
Non-Insulated.....	134

Ring Tongues

- Heat Shrink Brazed Seam 12-10..... 77
- Heat Shrink Brazed Seam 16-14 AWG 76
- Heat Shrink Brazed Seam 22-18 AWG 76
- Large Gauge Non-Insulated Copper Seamless 1 AWG 60
- Large Gauge Non-Insulated Copper Seamless 2 AWG 59

Large Gauge Non-Insulated Copper Seamless

- 1/0 AWG 61
- 2/0 AWG 62
- 3/0 AWG 62
- 4/0 AWG-250 kcmil 63

Non-Insulated Brazed Seam

- 12-10 AWG..... 55
- 16-14 AWG..... 54
- 22-18 AWG..... 53
- 4 AWG 58
- 6 AWG 57
- 8 AWG 56

Non-Insulated Butted Seam

- 12-10 AWG 65
- 16-14 AWG 64
- 22-18 AWG 64
- 26-24 AWG 63

Nylon Insulated

- 26-24 AWG 72
- Brazed Seam 4 AWG 72
- Brazed Seam 6 AWG 71
- Brazed Seam 8 AWG 71
- with Insulation Grip 12-10 AWG..... 75
- with Insulation Grip 16-14 AWG..... 74
- with Insulation Grip 22-18 AWG..... 73

Vinyl Insulated Brazed Seam

- 12-10 AWG 67
- 16-14 AWG 66
- 22-18 AWG 65

Vinyl Insulated Butted Seam

- 12-10 AWG..... 70
- 16-14 AWG..... 69
- 22-18 AWG..... 68

Standard Forks

- Non-Insulated Brazed Seam..... 79
- Non-Insulated Butted Seam 80
- Nylon Insulated..... 83-84
- Nylon Insulated with Insulation Grip 83
- Vinyl Insulated Brazed Seam 81
- Vinyl Insulated Butted Seam 82

Tools 143-145

Terminals

(Product Numbers - numeric and alpha-numeric)

951	40-41, 72, 84, 116, 119, 275-280	MC250 Series.....	63, 108
952	40-41, 119, 275, 278	MC250BCX	108
953	40-41, 119	MC2BCX	108
972	40-41, 120, 337	MC3/0 Series	62, 108
BF10 Series.....	137	MC3/0BCX	108
BF14 Series.....	137	MC4/0 Series.....	63, 108
BF18 Series.....	137	MC4/0BCX	108
BFV10 Series.....	138	MH10 Series.....	77, 106, 110
BFV14 Series.....	138, 142	MH10BC.....	110
BFV18 Series.....	138, 142	MH14 Series.....	76, 106, 110
BS10 Series.....	139	MH14BC.....	110
BS14 Series.....	139	MH18 Series.....	76, 105, 110
BS18 Series.....	139	MH18BC.....	110
BS10	139	MI14 Series	113
BS14	139	MI18 Series	113
BS18	139	MI10 Series	113
BSV10	139, 142	MN10BC.....	109
BSV14	139, 142	MN14 Series.....	37, 109
BSV18	139, 142	MN14BC.....	109
F14 Series.....	136	MN18BC.....	109
FD14 Series.....	139	MN4 Series.....	72
FD18 Series.....	139	MN6 Series.....	71
FDI10 Series.....	140	MN8 Series.....	71
FDI14 Series.....	140	MN24 Series.....	72, 84, 109
FDI18 Series.....	140	MNG10 Series.....	40, 75, 78, 83, 92, 97, 105, 110, 115-116, 119, 122, 124, 134
FDV10 Series.....	140	MNG10BC.....	110
FDV14 Series.....	140, 142	MNG14 Series.....	40, 74, 78, 83, 92, 97, 104, 110, 115-119, 122-124, 126, 134
FDV18 Series.....	140	MNG14BC.....	110
FV10 Series.....	137	MNG18 Series.....	40, 52, 73, 78, 83, 91, 97, 104, 110, 115-119, 122-124, 126, 134
FV14 Series.....	137	MNG18BC.....	110
LF10 Series.....	138	MNGI10 Series.....	116, 119, 122, 124
LF14 Series.....	138	MNGI14 Series.....	116, 119
LF18 Series.....	138	MNGI18 Series.....	116, 119
LFV10 Series.....	138	MNHI10 Series.....	120, 124
LFV14 Series.....	138	MNHU10 Series.....	120, 124
LFV18 Series.....	138	MNHU14 Series.....	120, 124
M10 Series.....	55, 79, 86, 93, 99, 107, 133, 146	MNHU18 Series.....	120, 124
M10BC.....	107	MNI10 Series.....	117-118, 123
M10PC.....	133	MNI14 Series.....	118
M14 Series.....	54, 79, 85, 93, 98, 107, 133	MNI18 Series.....	118
M14BC.....	107	MNU10 Series.....	118, 123
M14PC.....	133	MNU14 Series.....	117-118, 122-123
M18 Series.....	53, 79, 85, 93, 98, 107, 146	MNU18 Series.....	117, 122-123
M18BC.....	107	MT10 Series.....	140
M4 Series.....	58, 107, 146	MT14 Series.....	140
M4BC.....	107	MT18 Series.....	140
M6 Series.....	57, 107, 146	MTI10 Series.....	141
M6BC.....	107	MTI14 Series.....	141
M8 Series.....	56, 107, 146	MTI18 Series.....	141
M8BC.....	107	MTV10 Series.....	141
MA250DM Series.....	126-127	MTV14 Series.....	141
MC1 Series.....	60-61, 108	MTV18 Series.....	485
MC1/0 Series.....	61, 108	MU10 Series.....	65, 80, 88, 94, 100, 113, 121, 128-129, 134
MC1/0BCX.....	108	MU10BCHT.....	129
MC1BCX.....	108	MU14 Series.....	64, 80, 87, 94, 100, 113-114, 121, 128-130, 134
MC2 Series.....	59, 62-63, 108	MU14BCHT.....	129
MC2/0 Series.....	62, 108	MU18 Series.....	64, 80, 86, 94, 99, 113-114, 121, 125, 128-129, 134
MC2/0BCX.....	108	MU18BCHT.....	129

MU20 Series.....	113
MU24 Series.....	63
MU4 Series.....	128
MU6 Series.....	128
MU8 Series.....	128
MV10 Series.....	67, 78, 81, 89, 95, 102, 108, 320-321
MV10BC.....	108, 320-321
MV14 Series.....	66, 78, 81, 89, 95, 101, 108, 320-321
MV14BC.....	108, 320-321
MV18 Series.....	65, 78, 81, 88, 95, 101, 108, 320-321
MV18BC.....	108, 320-321
MV4BC.....	109
MV6BC.....	109
MV8BC.....	109
MVA Series.....	127
MVG24 Series.....	116
MVI10 Series.....	114-115, 121
MVI14 Series.....	115
MVI18 Series.....	115
MVU10 Series.....	70, 82, 91, 96, 103, 109, 114-115, 121, 133-134
MVU10BC.....	109
MVU14 Series.....	69, 82, 90, 96, 103, 109, 114-115, 121-122, 125, 133-134
MVU14BC.....	109
MVU18 Series.....	68, 82, 90, 96, 102, 109, 114-115, 121-122, 125, 133-134
MVU18BC.....	109
R10 Series.....	135
R14 Series.....	135
R18 Series.....	135
RV10 Series.....	136, 142
RV14 Series.....	136, 142
RV18 Series.....	136, 142
SPV14 Series.....	141
SPV18 Series.....	141
SRI14 Series.....	141
TH-450 Scissors Style.....	143
TH-440 Scissors Style.....	143
TR-482 Ratchet.....	144
TR-490 Ratchet.....	145

Important Notice

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

Warranty; Limited Remedy; Limited Liability.

3M's product warranty is stated in its Product Literature available upon request. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**