

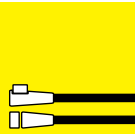
Connectivity Solutions

Contents

Balluff's new line of passive connectivity products offers a full compliment of options to establish standard sensor and actuator solutions in the automation environment. These components provide a high level of reliability and confidence, enabling accurate and repeatable connection IP ratings during maintenance. Many combinations of solutions are available and are presented below to facilitate future connectivity designs.



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Connectivity Solutions

Passive connectivity overview

Balluff's new line of sensor cordsets offers many benefits to the automation world. Balluff can globally offer cordsets that fit almost any standard sensor or actuator application. This offering includes features such as consistent and accurate IP ratings, a wide range of cable jackets, a full range of overmold configurations, and high quality rugged materials.

Hex Nut and Wrench
Maintain IP rating by applying the correct tightening torque every time

Alignment Mark
Arrow symbol aligns cordset with sensor keyways

Cable Materials
High grade, industry standard jacket materials

PVC
Standard automation and washdown

PUR
Abrasion and fluid resistant, halogen free

TPE
High-flex and weld slag resistant

TPU Overmold Strain Relief
Durable material that offers strain relief when required

Bright LEDs
LEDs shine bright even in difficult applications. Available with 2 or 3 LEDs

M8 and M12 Cordsets
Standard industrial connector sizes

Black PUR



Gray PVC



Yellow PVC, PUR, and TPE



PVC, PUR, and TPE with LEDs



Multiple Interface Blocks (MIB)

Balluff multiple interface blocks allow multiple sensors and actuator signals to be easily routed back to a control system. These fully potted blocks with metal threaded ports carry high shock and vibration ratings and are well-suited for many types of environments. The combination of Balluff's multiple interface blocks, cordsets and torque wrenches, provides a robust IP67 solution for a wet environment.

Quick Disconnect and Cable-out

Rated for integrated drag chain and available with a homerun cordset or metric quick disconnect threads for fast changeouts.



PNP LEDs
For use in verifying signal status

Hex Nut and Wrench
Maintain IP rating by applying the correct tightening torque



Variety of sizes
M8 - 3-wire and 4-wire
M12 - 4-wire and 5-wire

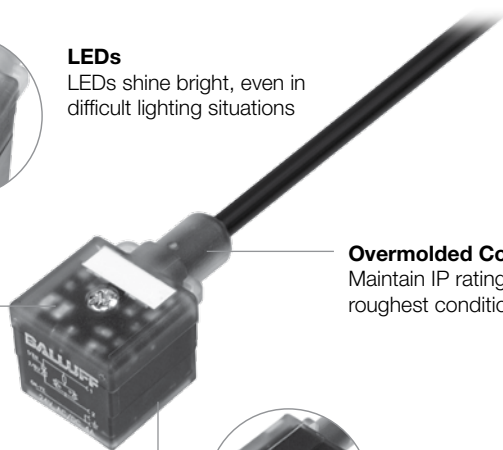
Fully Potted Housing
High shock and vibration ratings

Valve Connectors

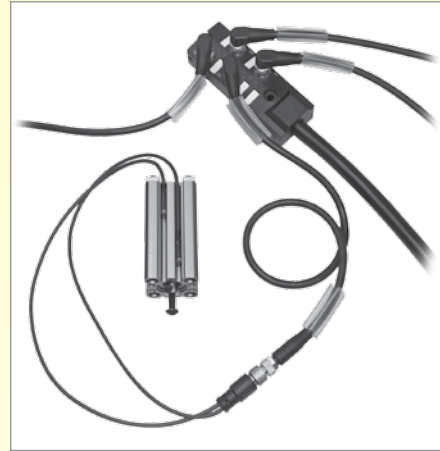
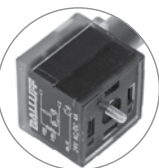
From sensors to cordsets, Balluff offers an extensive line, which includes valve connectors. These valve connectors cover all standard DIN connections, while also offering drag chain rated cables, rugged housings, and an option of protective circuits. Balluff can essentially complete any valve connector solution.



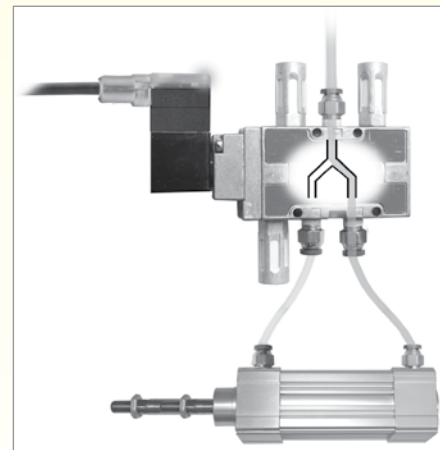
LEDs
LEDs shine bright, even in difficult lighting situations



Overmolded Connectors
Maintain IP rating even in the roughest conditions



By incorporating passive technology, these blocks concentrate signals into one homerun cordset. The dual density connectors allow for two signals per port. A typical application would include a Balluff V-Twin™ magnetic field sensor used with pneumatic cylinders. The V-Twin provides two sensors with a single connector, which sends both signals through the single cordset back to the high density MIB. This solution reduces sensor and cabling costs without sacrificing reliability or quality.



While DIN & Industry style connectors are used in many industrial automation applications, the most popular uses are with simple motors and solenoid valves. As with most solenoid valve applications a DIN or Industry style connector is required to switch the valve's position. Whether the application is clamping a part or moving an object, the Balluff valve connector can be used to pass the control signal to the valve. Integrated LEDs allow for easy recognition of solenoid position.

Connectivity Solutions

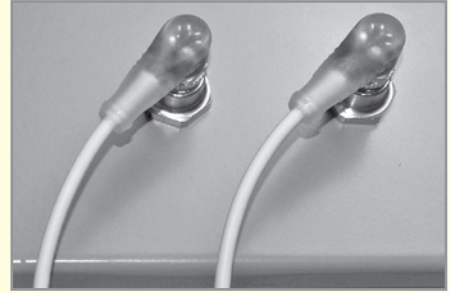
Passive connectivity applications

Welding and Rugged Environments



When working in rugged environments, it's important to choose a cordset that will stand up to the harshest situations - TPE is the cable jacket of choice. The use of LED cordsets is also beneficial for troubleshooting.

I/O Verification for Troubleshooting

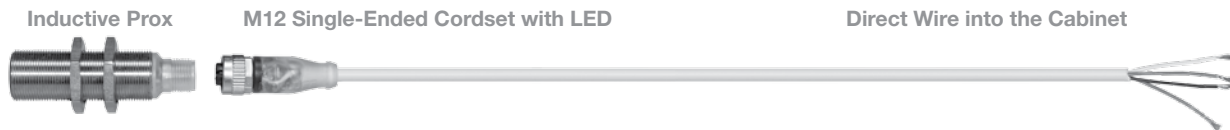


Selecting LEDs on the male ends of your cordsets allows for the sensor and output signals to be easily viewable and allows for simpler input or output indication for the operator.

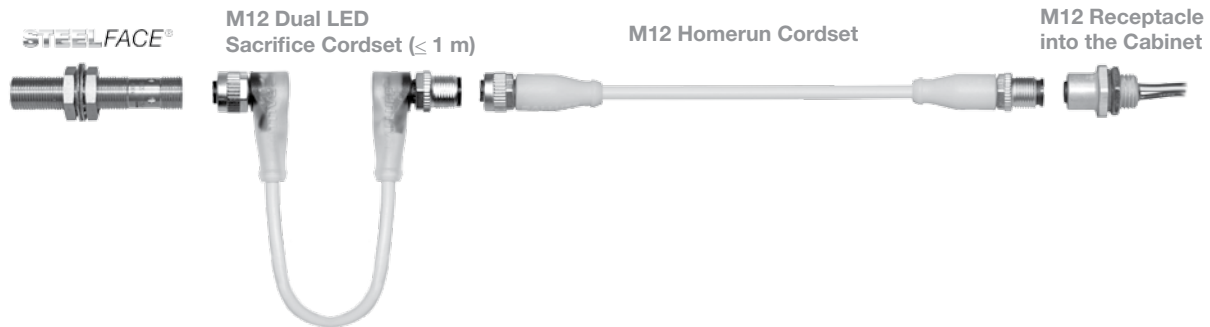
Cordset Options and Solutions

Balluff's new line of passive connectivity products offers a full compliment of options to establish standard sensor and actuator solutions in the automation environment. These components provide a high level of reliability and confidence, enabling accurate and repeatable connection IP ratings during maintenance. Many combinations of solutions are available and are presented below to facilitate future connectivity designs.

Basic Connectivity Solution: Used in simple, low sensor count applications



Sacrifice Cordset Solution: Used in extremely rugged applications to reduce cordset replacement downtime



Distributed I/O Solution: Used when many sensors and actuators are installed in various clumps around the machine

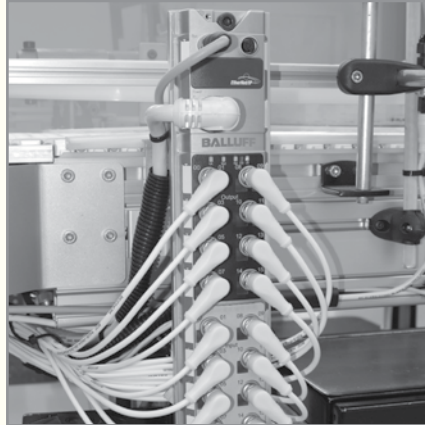


Washdown and Wet Applications



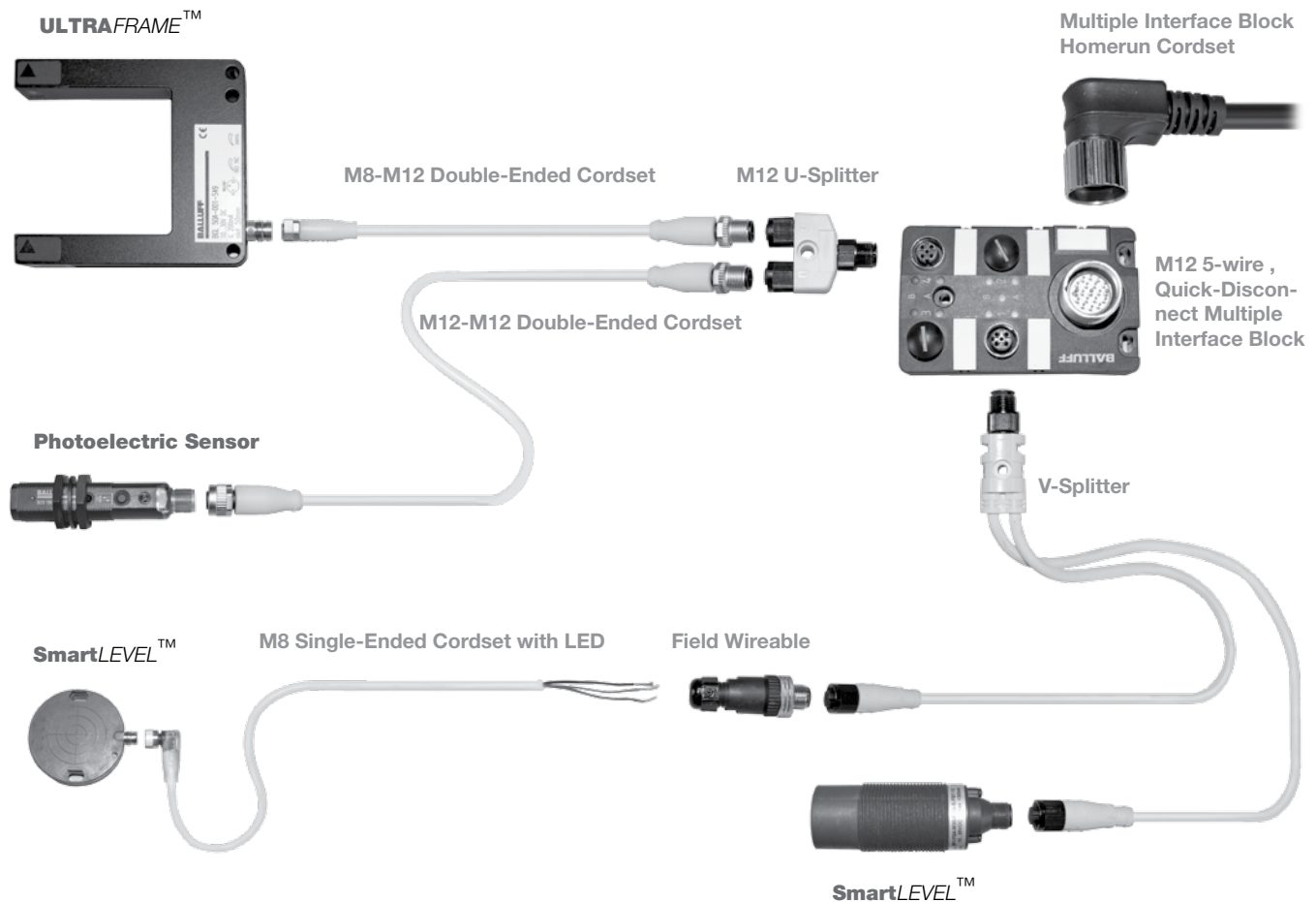
Fluids and sensor signals do not mix. By using a calibrated IP67 torque wrench on the hex nut of every cordset, you can ensure the IP67 rating of the multiple interface block with the cordset - and keep your signals dry.

Packaging and Assembly Automation



When quality is as important as speed in your application, select a PUR cordset, which provides flexibility as well as abrasion and fluid resistance. In a standard automation application, select a PVC cordset that is reliable and cost effective.

High Density Distributed I/O: Used when many sensor and actuator signals are needed for a production line or a highly automated machine



Connectivity Solutions

Overview quick selector



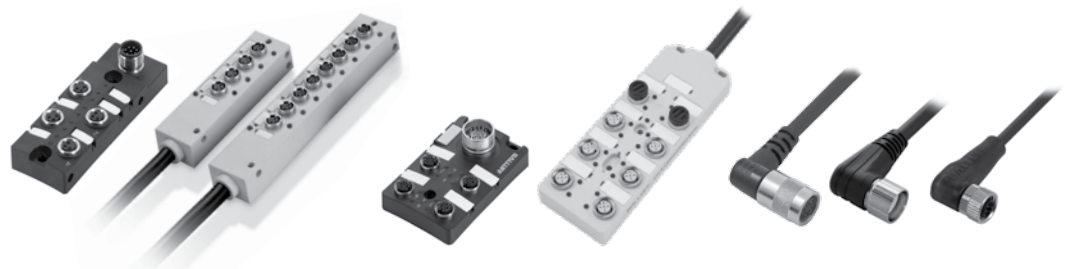
Sensor & Actuator Cables

Size	M5	M8	M12
Configurations	Single-Ended & Double-Ended	Single-Ended, Double-Ended	Single-Ended, Double-Ended
Conductors	3-wire, 4-wire	3-wire, 4-wire	3, 4, 4+PE, 5, 8, 12-wire
LED Versions	No	Yes	Yes
Shielded Versions	No	Yes	Yes
Page #	3.20	3.21	3.24



Mini Size Cables

Size	7/8"	1"	1 1/8"
Configurations	Single-Ended, Double-Ended, Tees, Bulkheads, Converters	Single-Ended, Double-Ended	Single-Ended, Double-Ended
Conductors	US Color Code: 3 & 4-wire DC Color Code: 4 & 5-wire	6, 7, 8-wire	9, 10, 12, 19-wire
Color Codes Available	US AC, DC	---	---
Shielded Versions	No	No	No
Page #	3.42	3.48	3.49



Junction Blocks (MIBs)

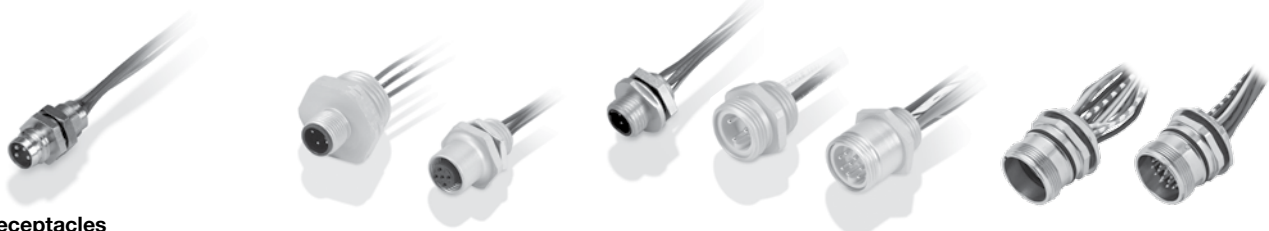
Size	M8	M12	M12, M16, M23
Configurations	Quick Disconnect, Cable Out	Quick Disconnect, Cable Out, Terminal Blocks	Homerun Cables
Conductors	4-port & 8-port, 3-wire & 4-wire	4-port & 8-port, 3+PE & 4+PE	8-wire, 12-wire, 19-wire
LED Versions	Yes	Yes	No
Shielded Versions	No	No	No
Page #	3.50	3.52	3.55

Connectivity Solutions

Overview quick selector



M8 and M12 Specialty	Splitters	1/2" AC	DIN A, DIN B, IND B, DIN C, IND C
High Temp, Coil Cable, Stainless, IP69K, ECOLAB, Global cable	M8 & M12, V & U Styles	Single-Ended, Double-Ended	Single-Ended, Pigtail, V-Splitter
3-wire, 4-wire, 4+PE	3-wire, 3+PE	3, 4, 5, 6-wire	2+PE
Yes	Yes	No	Yes
No	No	Yes	Yes
3.34	3.38	3.40	3.72



Receptacles

M8	M12	1/2" AC, 7/8", 1", 1 1/8"	M23
M8x0.5	1/4"-18NPT, 1/2"-14NPT, M16x1.5	1/4"-18NPT, 1/2"-14NPT, M16x1.5, M20x1.5	M20x1.5
3-wire, 4-wire	3, 4, 4+PE, 5, 8-wire	3, 4, 5, 6-wire, 7, 8, 9, 10-wire, 12, 19-wire	12-wire, 19-wire
DC	DC	US AC, DC	---
Metal	Metal	Metal	Metal
3.56	3.57	3.58-3.61	3.56



Field Attachables

M8	M12	1/2" AC, 7/8"	M23
Piercon, Screw Terminal, Soldercup	Insulation Displacement, Screw Terminal, Spring Clamp	Screw Terminal	Solder Cup
3-wire, 4-wire	3, 4, 5, 8, 12-wire	3, 4, 5-wire	12, 19-wire
No	No	No	No
No	Yes	No	No
3.62	3.64	3.68-3.69	3.70

Connectivity Solutions

M8 Nano, M12 Micro - Single & Double-Ended Cables

BCC M415 - M424 - 3A - 304 - VX44T2 - 020 - C008

Head 1

Head 2

Code

Wiring

Raw Cable

Length

Custom

Head 1 & Head 2 Configuration

Connector Size & Type:

M3	M8 Nano DC - Ni Plated Brass
M4	M12 Micro DC - Ni Plated Brass
S3	M8 Nano DC - Stainless 1.4404
S4	M12 Micro DC - Stainless 1.4404
0000	(Head 2) Single-Ended Cable

Connector Direction:

1	Straight Plastic Overmolded
2	Right Angle Plastic Overmolded

Number of Visible Connections:

5	M12 Female
no. poles	Any other configuration

Code Configuration

Gender Type:

1	Female Internal Threads
2	Male External Threads
3	Female Int - Male Ext
5	Female Int - Female Int
6	Male Ext - Male Ext

Connector Coding

A	M12 Sensor Cables (typical) (A-coded)
0	M8 Sensor Cables (typical) (No coding)
B	M12 Profibus Cables (B-coded)
D	M12 Ethernet Cables (D-coded) (Profinet, EtherNet/IP)
E	M8-M12 Double-Ended Cables
F	M12-M8 Double-Ended Cables

Wiring Configurations

See next page for configurations

Custom Configurations

Custom Values:

C002	Grey Overmold
C008	WeldRepel™ Applied
C013	GlobalLine, Black Overmold

Raw Cable Configuration

Jacket Material:

V	PVC
P	PUR
E	TPE

Special Designator:

X	Nothing
C	Coiled Cable
H	High Temperature
S	Shielded
W	Weld Resistant / High Shore
I	Economy (non-UL/CSA)
M	Solid Conductor, Unshielded

Jacket Color:

0	Black	2	Red (CC-Link)
3	Orange	4	Yellow (standard)
5	Green (Profinet)	6	Blue (EtherNet/IP)
7	Violet (Profibus)	8	Grey (standard/DeviceNet)

Number of Poles

#	3-pole thru 9-poles
A	10-pole
C	12-pole

Conductor Profile

T2	22 AWG	W8	18 AWG
25	0.25mm ²	34	0.34mm ²
50	0.50mm ²	N1	Profibus
N2	Profinet	N7	CC-Link
N8	ethernet	N9	EtherNet/IP

Length Configuration

Cable Length:

003	0.3 meters
020	2.0 meters
100	10.0 meters

Special Lengths:

05/14	0.5m coiled, 1.4m stretch
2D5	2.5 decimeters (25cm)
10X	100 meters

Note: Part Number Matrix is designed for information purposes only. Not all configurations are possible. Consult factory for part number availability.

Connectivity Solutions

M8 Nano, M12 Micro

Single & Double-Ended Cables

Standard Cordsets

Wiring	Poles	Shield	Head 1	Head 2
001	3-wire	---	N/O	---
002	3-wire	---	N/C	---
003	4-wire	---	Comp.	---
004	3-wire	---	N/O PNP LED	---
005	3-wire	---	N/C PNP LED	---
006	3-wire	---	N/O NPN LED	---
007	3-wire	---	N/C NPN LED	---
008	4-wire	---	N/O PNP LED	---
009	4-wire	---	N/O NPN LED (M12 Female Only)	---
010	4-wire	---	Comp. PNP LED	---
300	3-wire	---	N/O	N/O
302	3-wire	---	N/O PNP LED	N/O PNP LED
304	4-wire	---	Comp.	Comp.
306	4-wire	---	N/O PNP LED	N/O PNP LED
313	5-wire	---	Comp. and Gnd	---
602	3-wire	---	N/O PNP LED	N/O
603	3-wire	---	N/O NPN LED	N/O
606	4-wire	---	N/O PNP LED	Comp.
607	4-wire	---	N/O NPN LED	Comp.
650	4-wire	---	Comp. PNP LED	Comp.
651	4-wire	---	Comp. PNP LED	N/O PNP LED

Shielded Cordsets and High Conductor Counts

014	4-wire	Nut	BN,WH,BU,BK	---
016	5-wire	Nut	BN,WH,BU,BK,GY	---
017	5-wire	---	BN,WH,BU,BK,GY	---
034	4-wire+PE	---	BN,WH,BU,BK,GNYE	---
036	3-wire	Nut	BN,BU,BK (N/O)	---
037	3-wire	Nut	BN,BU,BK (N/C)	---
039	5-wire	---	Comp. PNP LED	---
040	4-wire+PE	---	Comp. PNP LED	---
043	4-wire+PE	Nut	BN,WH,BU,BK,GNYE	---
044	8-wire	---	WH,GN,YE,GY,BN,PK,BU,RD	---
046	8-wire	Nut	WH,BN,GN,YE,GY,PK,BU,RD	---
049	12-wire	---	BN,BU,WH,GN,PK,YE,BK,GY,RD,VI,GYPK,RDBU	---
325	12-wire	---	BN,BU,WH,GN,PK,YE,BK,GY,RD,VI,GYPK,RDBU	---

Network Cordsets

031	2-pole	Nut	Profibus	---
068	4-pole	Pin	CC-Link	---
329	2-pole	Nut	Profibus	Profibus
331	4-pole	Nut	Profinet	Profinet
337	4-pole	Pin	CC-Link	CC-Link
338	2x2pair	Nut	ethernet	ethernet

Connectivity Solutions

M8 Nano, M12 Micro - Splitter Cables

BCC M414 - M425 - M425 - U2010 - 003

Head 1 (Splitter) Head 2 (Head A) Head 3 (Head B) Splitter Code Length

Head 1 Configuration

Connector Size & Type:

M4 M12 Micro DC - Ni Plated Brass

Connector Direction:

1 Straight Plastic Overmolded

Number of Visible Connections:

3-pole thru 8-poles

Head 2 & Head 3 Configuration

Connector Size & Type:

M3 M8 Nano DC - Ni Plated Brass
M4 M12 Micro DC - Ni Plated Brass
0000 (Head 2, Head 3) Open Splitter

Connector Direction:

1 Straight Plastic Overmolded
2 Right Angle Plastic Overmolded

Number of Visible Connections:

5 M12 Female
no. poles Any other configuration

Splitter Code

Code	Type	Wiring	Head 1	Head 2	Head 3	Cable	Body
U0003	U Splitter	A00	M12 Male	M12 Female	M12 Female	---	BK PVC
U0014	U Splitter	A00	M12 Male	M8 3-pole Female	M8 3-pole Female	---	BK PVC
U2002	V Splitter	A00	M12 Male	M12 Female	M12 Female	YE TPE	YE TPU
U2009	V Splitter	A13	M12 Male	Leads	Leads	YE PVC	YE TPU
U2010	V Splitter	A00	M12 Male	M12 Female	M12 Female	YE PVC	YE TPU
U2011	V Splitter	A07	M12 Male	M12 Female	M12 Female	YE TPE	YE TPU
U2012	V Splitter	A00	M12 Male	M8 Female	M8 Female	YE PVC	YE TPU

Wiring Configuration

Wiring	Head 1	Head 2	Head 3	Logic	LED
A00	4-wire	3-wire N/O (H1=pin 4)	3-wire N/O (H1=pin 2)	Splitter	---
A07	4-wire	3-wire N/O (H1=pin 4)	3-wire N/O (H1=pin 2)	Splitter	(H2&H3) PNP
A13	4-wire	BN,BU,BK (H1=pin 4)	BN,BU,BK (H1=pin 2)	Splitter	---

Length Configuration

Cable Length:

003 0.3 meters
020 2.0 meters
100 10.0 meters

*Head 2 & Head 3 lengths are equal

Note: Part Number Matrix is designed for information purposes only. Not all configurations are possible. Consult factory for part number availability.

Connectivity Solutions

MINI Sizes: 7/8", 1", 1 1/8"

Single & Double-Ended Cables

BCC A315 - A325 - 30 - 335 - VX45W6 - 020

Head 1

Head 2

Code

Wiring

Raw Cable

Length

Head 1 & Head 2 Configuration

Connector Size & Type:

A3	7/8" MINI Size I
A4	1" MINI Size II
A5	1 1/8" MINI Size III
0000	(Head 2) Single-Ended Cable

Connector Direction:

1	Straight Plastic Overmolded
2	Right Angle Plastic Overmolded

Number of Visible Connections:

#	3-pole thru 9-poles
A	10-pole
C	12-pole
L	19-pole

Code Configuration

Gender Type:

1	Female Internal Threads
2	Male External Threads
3	Female Int - Male Ext
7	Female Int - Male Int
C	Male Internal Threads
D	Female External Threads

Connector Coding:

0	All configurations (typical)
----------	------------------------------

Wiring Configurations

Single-Ended	Double-Ended	Poles
003	304	4-wire DC
063	335	5-wire DC
071	345	3-wire AC
072	346	4-wire AC
085	357	6-wire
086	358	7-wire
087	359	8-wire
088	360	9-wire
089	355	10-wire
090	362	12-wire
091	363	19-wire
030	330	DeviceNet

Raw Cable Configuration

Jacket Material:

V	PVC
P	PUR
E	TPE

Special Designator:

X	nothing
S	Shielded

Jacket Color:

0	Black
4	Yellow (standard)
8	Grey

Number of Poles:

#	1-pole thru 9-poles
A	10-pole
C	12-pole
L	19-pole

Conductor Profile:

W6	16 AWG
W8	18 AWG
A5	1.50mm ²
N4	DeviceNet Thick*
N5	DeviceNet Mid*
N6	DeviceNet Thin*

*For DeviceNet a jacket material of PUR is flex rated

Length Configuration

Cable Length:

003	0.3 meters
020	2.0 meters
100	10.0 meters

Note: Part Number Matrix is designed for information purposes only. Not all configurations are possible. Consult factory for part number availability.

BCC M434 - 0000 - 2A - 000 - 55X450 - 000

Connector (Place Holder) Code (Place Holder) Configuration (Place Holder)

Field Attachable Connector

Connector Size & Type:

M3	M8 Nano DC
M4	M12 Micro DC
S3	M8 Nano DC - Stainless
S4	M12 Micro DC - Stainless
A2	1/2" Micro AC
A3	7/8" MINI Size I

Connector Direction:

3	Straight Plastic Field Attachable
4	Right Angle Plastic Field Attachable
7	Straight Metal Field Attachable
8	Right Angle Metal Field Attachable

Number of Visible Connections:

5	M12 Female
no. poles	Any other configuration

Code Configuration

Gender Type:

1	Female Internal Threads
2	Male External Threads

Connector Coding

A	M12 Sensor Connectors (typical)
0	M8 & 7/8" (typical)
B	M12 Profibus Connectors
D	M12 Ethernet Connectors (Profinet, EtherNet/IP)

Configuration Breakdown

Cable Gland Minimum Diameter

1	min Ø 2.5mm	2	min Ø 3.0mm
3	min Ø 3.5mm	4	min Ø 4.0mm
5	min Ø 6.0mm	6	min Ø 8.0mm
7	min Ø 10mm	8	min Ø 12mm
9	min Ø 14mm	0	min Ø 5.0mm
A	min Ø 2.1mm or 4.0mm		

Connection Technology

1	Screw Terminals
2	Piercon Terminals
3	Insulation Displacement Terminals
4	Solder Cup Terminals
5	Spring Type Terminals

Cable Type

X	no cable
----------	----------

Number of Poles

#	1-pole thru 9-poles
A	10-pole
C	12-pole

Maximum Conductor Profile

25	0.25mm ²	34	0.34mm ²
50	0.50mm ²	75	0.75mm ²
A5	1.50mm ²		

Note: Part Number Matrix is designed for information purposes only. Not all configurations are possible. Consult factory for part number availability.

BCC 0000 - 0000 - 00 - 001 - EX43T2 - 10X

(Place Holder) (Place Holder) (Place Holder) Wiring Raw Cable Length

Wiring Configuration

Wiring	Poles	Shield	Color Code
001	3-wire DC	---	BN,BU,BK
003	4-wire DC	---	BN,WH,BU,BK
030	5-wire	Yes	DeviceNet
063	5-wire DC	---	BN,WH,BU,BK,GNYE
071	3-wire AC	---	WH,BK,GN
072	4-wire AC	---	BK,WH,RD,GN
102	2x2 Twisted Pair	---	OR, WH/OR, GN, WH/GN
168	2x2 Twisted Pair	Yes	OR, WH/OR, GN, WH/GN
000	---	---	Contact Technical Support

Length Configuration

Cable Length:

500	50 meters
10X	100 meters (standard)
25X	250 meters

Raw Cable Configuration

Jacket Material:

V	PVC
P	PUR
E	TPE

Special Designator:

X	nothing
S	Shielded
M	Solid Conductor, Unshielded

Jacket Color:

0	Black	2	Red (CC-Link)
4	Yellow (standard)	5	Green (Profinet)
7	Violet (Profibus)	6	Teal (Ethernet)
8	Grey (standard/DeviceNet)		

Number of Poles

2-pole thru 5-poles

Conductor Profile

T2	22 AWG	W6	16 AWG
34	0.34mm ²	A5	1.50mm ²
N1	Profibus	N2	Profinet
N4	DeviceNet Thick	N5	DeviceNet Mid
N6	DeviceNet Thin	N7	CC-Link
		N9	EtherNet/IP

Note: Part Number Matrix is designed for information purposes only. Not all configurations are possible. Consult factory for part number availability.

Connectivity Solutions

Valve Connectors - DIN & IND Styles

BCC VA04 - M413 - 3E - 665 - VX8350 - 006

Head 1

Head 2

Code

Wiring

Raw Cable

Length

Head 1 Configuration

Connector Size & Type:

VA0	Type A - DIN (18mm) - 0°
VB0	Type B - DIN (10mm) - 0°
VB2	Type B - DIN (10mm) - 180°
VB4	Type B - IND (11mm) - 0°
VB6	Type B - IND (11mm) - 180°
VC0	Type C - DIN (8mm) - 0°
VC4	Type C - IND (9.4mm) - 0°

Number of Visible Connections:

4	A & C Types
3	B Type

Head 2 Configuration

Connector Size & Type:

M4	M12 Micro DC - Ni Plated Brass
0000	(Head 2) Single-Ended Cable

Connector Direction:

1	Straight Plastic Overmolded
2	Right Angle Plastic Overmolded

Number of Visible Connections:

#	3-pole thru 5-poles
----------	---------------------

Code Configuration

Gender Type:

1	Female
3	Female - Male

Connector Coding

0	Single-Ended Cables (typical)
E	Double-Ended Cables (with M12)

Wiring Configuration

Wiring	Poles	Bridged	H1/H2 LED
053	3	Yes	Diode & PNP LED/---
054	3	Yes	No/---
055	3	---	Diode & PNP LED/---
056	3	---	No/---
664	3	Yes	Diode & PNP LED/No
665	3	Yes	No/No
666	3	---	Diode & PNP LED/No
667	3	---	No/No

Raw Cable Configuration

Jacket Material:

V	PVC
P	PUR

Special Designator:

X	nothing
----------	---------

Jacket Color:

0	Black
8	Grey

Number of Poles

#	3-pole thru 5-poles
----------	---------------------

Conductor Profile

50	0.50mm ²
-----------	---------------------

Length Configuration

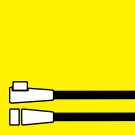
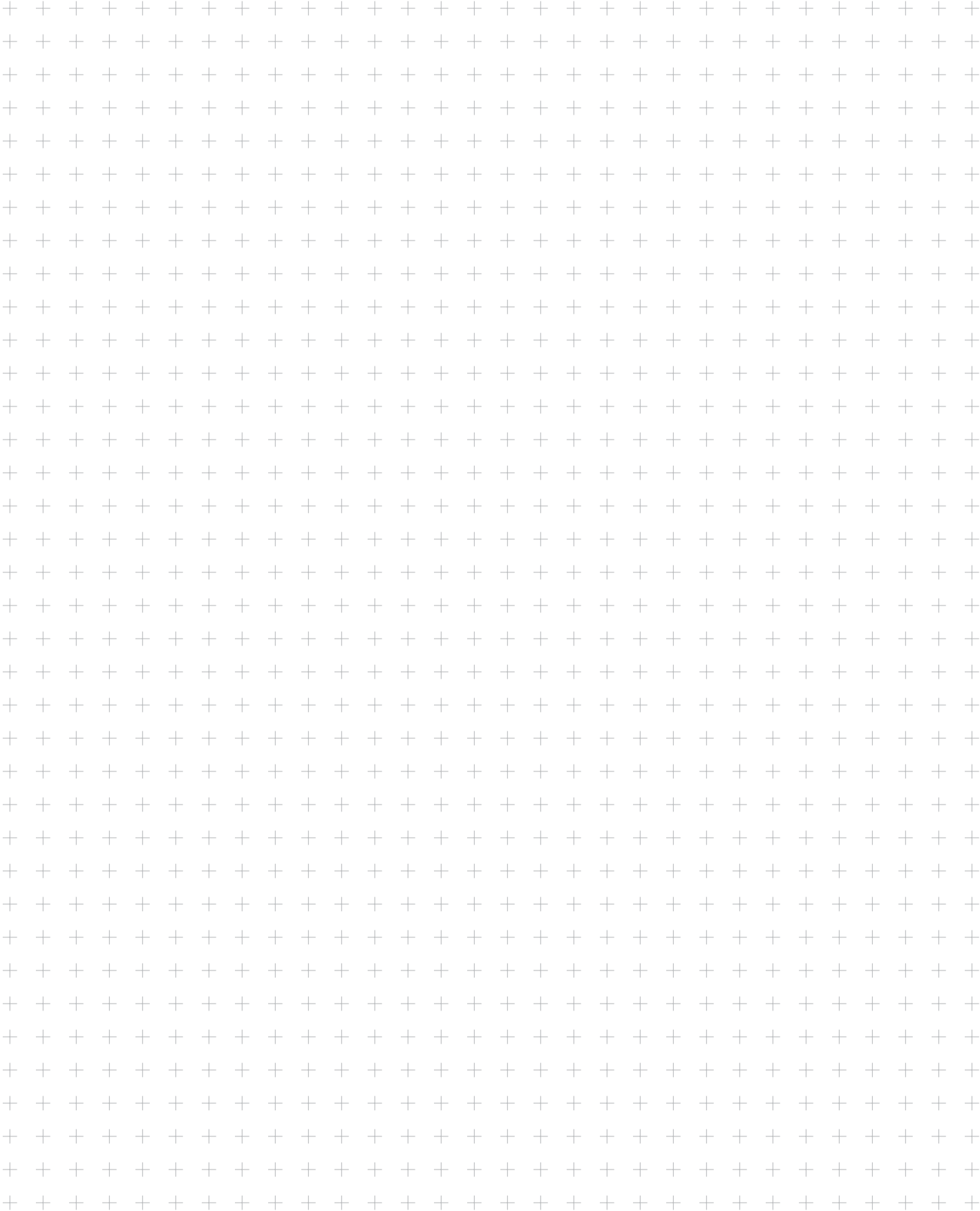
Cable Length:

003	0.3 meters
020	2.0 meters
100	10.0 meters

Note: Part Number Matrix is designed for information purposes only. Not all configurations are possible. Consult factory for part number availability.



Connectivity Solutions



Connectivity Solutions

Sensor cable part builder

Balluff's new line of sensor cordsets offers many benefits to the automation world. Balluff can globally offer cordsets that fit almost any standard sensor or actuator application. This offering includes features such as consistent and accurate IP ratings, a wide range of cable jackets, a full range of overmold configurations, and high quality rugged materials.

Select your cordset in 4 easy steps:

1. Pick your connector types (single/double, right angle/straight)
2. Pick your electrical information and LEDs
3. Pick your jacket material and color
4. Pick your cordset length

Complete Part Number Example:

BCC M415-0000-1A-008-VX44T2-050

- M12 single ended, straight female (M415-0000-1A)
- 4-wire, 2x PNP LED (008)
- Yellow PVC, 4-wire (VX44T2)
- 5 m cable (050)



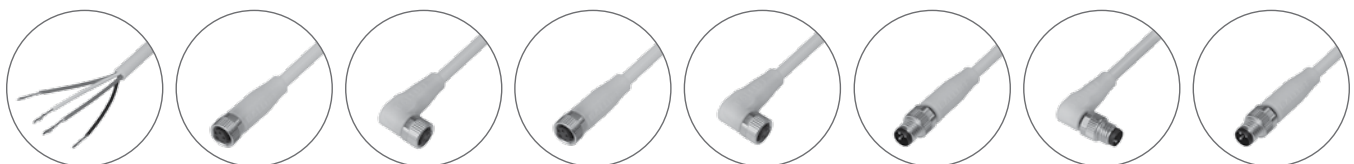
Step 1

BCC - - - - -

Cordset Connector Selection

Single-ended and double-ended cordsets can be made using the chart below. Available in industry standard M8 and M12 sizes, these cordsets come in a variety of head combinations; single-ended, straight to straight, right angle to straight, and right angle to right angle. To select your cordset, start by selecting the female connector that will match your sensor. Next, follow the row across until you find the required end that will go back to your controller, homerun cordset, MIB, etc.

		Male (controller, homerun cable, MIB end) →			
Female (sensor end)	Connector Types	Single Ended Female	3-wire M8 Straight Male	3-wire M8 Right Angle Male	4-wire M8 Straight Male
	Single-Ended Male		M313-0000-20	M323-0000-20	M314-0000-20
	M8 Straight Female 3-wire	M313-0000-10	M313-M313-30	M313-M323-30	
	M8 Right Angle Female 3-wire	M323-0000-10	M323-M313-30	M323-M323-30	
	M8 Straight Female 4-wire	M314-0000-10			M314-M314-30
	M8 Right Angle Female 4-wire	M324-0000-10			M324-M314-30
	M12 Straight Female	M415-0000-1A	M415-M313-3F	M415--M323-3F	M415-M314-3F
	M12 Right Angle Female	M425-0000-1A	M425-M313-3F	M425-M323-3F	M425-M314-3F



Single Ended M8 Female 3-wire M8 Female 3-wire M8 Female 4-wire M8 Female 4-wire M8 Male 3-wire M8 Male 3-wire M8 Male 4-wire

Step 2

BCC - - - - -

Cordset Wiring and LEDs

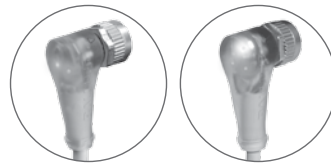
Both 3- and 4-wire cordsets are available in single- and double-ended cordsets, as well as two and three LEDs. To select your cordset, start with Step 1 on previous page. Then decide if you need 3- or 4-wire and whether or not you want an LED in the overmolded head.

Single Ended Cordsets			
Head 1 and 2	3-wire N/O	3-wire N/C	4-wire
No LED	001	002	003
2x PNP LED	004	005	008
3x PNP LED**			010
2x NPN LED	006	007	009



No LED

Double Ended Cordsets			
Head 1	Head 2	3-wire N/O	4-wire
No LED	No LED	300	304
2x PNP LED	No LED	602	606
3x PNP LED**	No LED		650
2x NPN LED	No LED	603	607
2x PNP LED	2x PNP LED*	302	306
2x NPN LED	2x NPN LED*	303	307
3x PNP LED**	2x PNP LED*		651



2x LED

3x LED

2x = 1 power LED and 1 signal LED
3x = 1 power LED and 2 signal LEDs

*M12 right angle male only
**M12 right angle female only

Male (controller, homerun cable, MIB end)				
4-wire M8 Right Angle Male	3-wire M12 Straight Male	3-wire M12 Right Angle Male	4-wire M12 Straight Male	4-wire M12 Right Angle Male
M324-0000-20	M413-0000-2A	M423-0000-2A	M414-0000-2A	M424-0000-2A
	M313-M413-3E	M313-M423-3E		
	M323-M413-3E	M323-M423-3E		
M314-M324-30			M314-M414-3E	M314-M424-3E
M324-M324-30			M324-M414-3E	M324-M424-3E
M415-M324-3F	M415-M413-3A	M415-M423-3A	M415-M414-3A	M415-M424-3A
M425-M324-3F	M425-M413-3A	M425-M423-3A	M425-M414-3A	M425-M424-3A



M8 Male 4-wire

M12 Female

M12 Female

M12 Male 3-wire

M12 Male 3-wire

M12 Male 4-wire

M12 Male 4-wire

Connectivity Solutions

Sensor cable part builder

Step 3

BCC - - - - -

Raw Cable Type

To select your raw cable, first decide on the correct jacket for the application and then on a jacket color.

- PVC: For standard automation applications
- PUR: For abrasion and extreme fluid resistance
- TPE: For High-flex and for use in heavy duty environments

Jacket Color and Material				
Material	Color	Conductor	3-wire	4-wire
PVC	Yellow	22 AWG	VX43T2	VX44T2
PVC	Gray	0.34 mm ²	VX8334	VX8434
PUR	Yellow	22 AWG	PX43T2	PX44T2
PUR	Black	0.34 mm ²	PX0334	PX0434
TPE	Yellow	22 AWG	EX43T2	EX44T2



PVC, PUR, TPE

PVC

PUR

Step 4

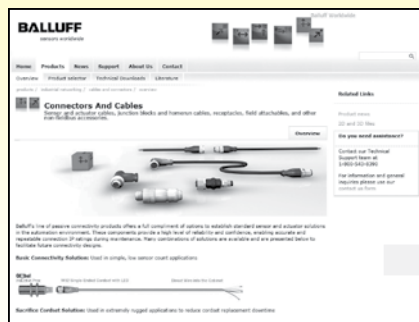
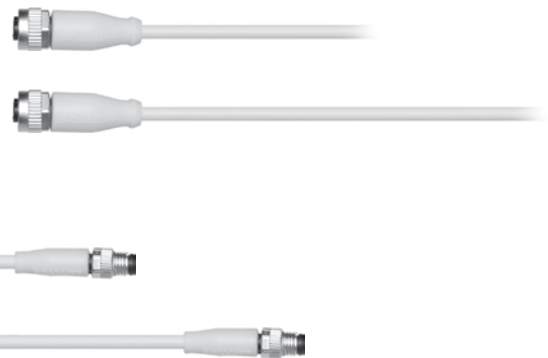
BCC - - - - -

Cordset Length

Select from our standard cordset lengths below. Contact the factory for custom cordset length selections.

Double Length Options	
Length	Ordering Information
0.3 m	003
0.6 m	006
1 m	010
1.5 m	015
2 m	020
3 m	030
5 m	050

Single Length Options	
Length	Ordering Information
2 m	020
5 m	050
10 m	100



Need help finding a cross?
Need help selecting a part?

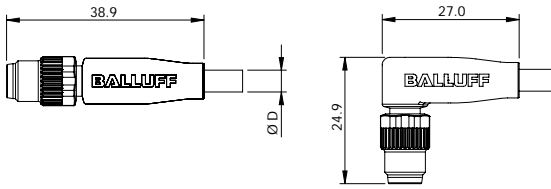
Visit us online: www.balluff.us
Call or email our technical support group at:
1-800-543-8390
technical.support@balluff.com

Connectivity Solutions

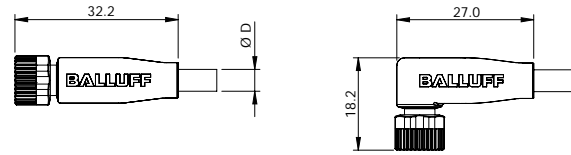
Technical specifications

Bulk sensor cable

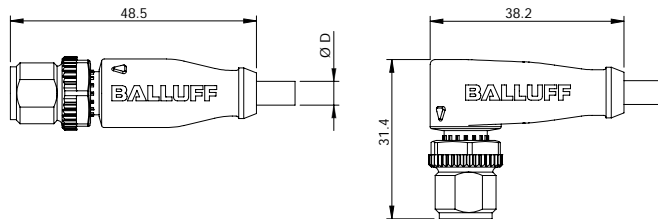
M8 connectors, male straight and right-angle



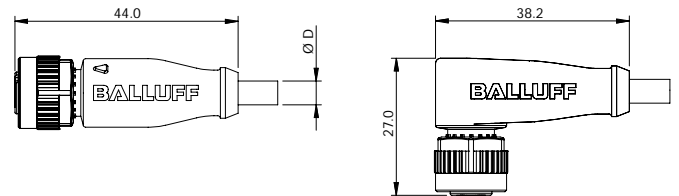
M8 connectors, female straight and right-angle



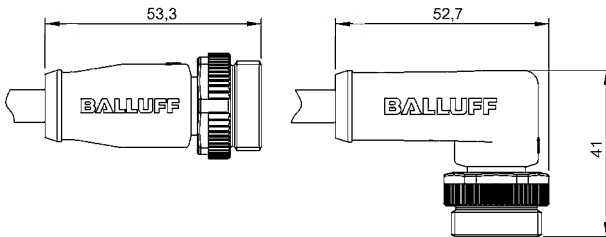
M12 connectors, male straight and right-angle



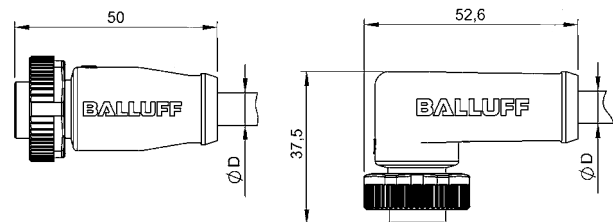
M12 connectors, female straight and right-angle



7/8" connectors, male straight and right-angle



7/8" connectors, female straight and right-angle



Note: For face views and wiring diagrams see the technical reference section (t).



Bulk Cable Specifications

Jacket Material	PVC		PUR		TPE	
Application	General Automation		Cut & Fluid Resistant, Halogen Free		High Flex, Weld Slag Resistant	
Jacket Color	Yellow		Yellow		Yellow	
Conductor Gauge	22AWG		22AWG		22AWG	
Ambient temp. (moving)	-5...105°C		-25...80°C		-40...105°C	
Ambient temp. (fixed)	-40...105°C		-50...80°C		-50...105°C	
Bending Cycles	> 2 Million		> 2 Million		> 10 Million	
Bulk Cable (100 m)	BCC0AE7	BCC0AE8	BCC0AE9	BCC0AEA	BCC0AEC	BCC0AEE
Number of Conductors	3	4	3	4	3	4
Cable Diameter (mm)	4.7 ± 0.15	5.0 ± 0.15	4.3 ± 0.20	4.7 ± 0.20	5.3 ± 0.13	5.3 ± 0.13

Connectivity Solutions

M5 single-ended cordsets

M5-M8 double-ended cordsets



M5 Single-Ended

Type	M5 Female	M5 Female
Configuration	Straight	Right Angle
Voltage Rating	30 VAC/VDC	30 VAC/VDC
Amperage	1 A	1 A
3-wire, non-LED	BKS-B 25-1-PU-03	BKS-B 26-1-PU-03
4-wire, non-LED	BKS-B 25-3-PU-03	BKS-B 26-3-PU-03



M5-M8 Double-Ended

Type	M5 Female - M8 Male	M5 Female - M8 Male
Configuration	Straight - Straight	Right Angle - Straight
Voltage Rating	30 VAC/VDC	30 VAC/VDC
Amperage	1 A	1 A
3-wire, non-LED	BKS-B 25-1/GS49-PU-01	BKS-B 26-1/GS49-PU-01

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8 single-ended cordsets



M8 Single-Ended Female

Type	M8 Female	M8 Female
Configuration	Straight	Right Angle
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)
Amperage	4 A	4 A
3-wire, non-LED	BCC M313-0000-10-001- _X43T2- _ _ _	BCC M323-0000-10-001- _X43T2- _ _ _
3-wire, non-LED, shielded	BCC M313-0000-10-036- _S_334- _ _ _	BCC M323-0000-10-036- _S_334- _ _ _
3-wire, PNP-LED, N/O signal		BCC M323-0000-10-004- _X43T2- _ _ _
3-wire, NPN-LED, N/O signal		BCC M323-0000-10-006- _X43T2- _ _ _
4-wire, non-LED	BCC M314-0000-10-003- _X44T2- _ _ _	BCC M324-0000-10-003- _X44T2- _ _ _
4-wire, non-LED, shielded	BCC M314-0000-10-014- _S_434- _ _ _	BCC M324-0000-10-014- _S_434- _ _ _

Standard Cable Jackets:

V = PVC (VS0 = shielded)

P = PUR (PS0 = shielded)

E = TPE (no shielded version)

Standard Lengths Available:

020 = 2 m

050 = 5 m

100 = 10 m



M8 Single-Ended Male

Type	M8 Male	M8 Male
Configuration	Straight	Right Angle
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)
Amperage	4 A	4 A
3-wire, non-LED	BCC M313-0000-20-001- _X43T2- _ _ _	BCC M323-0000-20-001- _X43T2- _ _ _
4-wire, non-LED	BCC M314-0000-20-003- _X44T2- _ _ _	BCC M324-0000-20-003- _X44T2- _ _ _

Standard Cable Jackets:

V = PVC

P = PUR

E = TPE

Standard Lengths Available:

020 = 2 m

050 = 5 m

100 = 10 m

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8-M8 double-ended cordsets
M8-M12 double-ended cordsets



M8-M8 Double-Ended

Type	M8 Female - M8 Male	M8 Female - M8 Male	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)	
Amperage	4 A	4 A	
3-wire, non-LED	BCC M313-M313-30-300- _X43T2- _ _ _	BCC M323-M313-30-300- _X43T2- _ _ _	
3-wire, PNP-LED, N/O, Head 1		BCC M323-M313-30-602- _X43T2- _ _ _	
3-wire, NPN-LED, N/O, Head 1		BCC M323-M313-30-603- _X43T2- _ _ _	
4-wire, non-LED	BCC M314-M314-30-304- _X44T2- _ _ _	BCC M324-M314-30-304- _X44T2- _ _ _	



M8-M12 Double-Ended

Type	M8 Female - M12 Male	M8 Female - M12 Male	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)	
Amperage	4 A	4 A	
3-wire, non-LED	BCC M313-M413-3E-300- _X43T2- _ _ _	BCC M323-M413-3E-300- _X43T2- _ _ _	
3-wire, PNP-LED, N/O, Head 1		BCC M323-M413-3E-602- _X43T2- _ _ _	
3-wire, NPN-LED, N/O, Head 1		BCC M323-M413-3E-603- _X43T2- _ _ _	
4-wire, non-LED	BCC M314-M414-3E-304- _X44T2- _ _ _	BCC M324-M414-3E-304- _X44T2- _ _ _	

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8-M8 double-ended cordsets
M8-M12 double-ended cordsets



M8 Female - M8 Male	M8 Female - M8 Male
Straight - Right Angle	Right Angle - Right Angle
60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)
4 A	4 A
BCC M313-M323-30-300- _X43T2- _ _ _	BCC M323-M323-30-300- _X43T2- _ _ _
	BCC M323-M323-30-602- _X43T2- _ _ _
	BCC M323-M323-30-603- _X43T2- _ _ _
BCC M314-M324-30-304- _X44T2- _ _ _	BCC M324-M324-30-304- _X44T2- _ _ _

Standard Cable Jackets:

V = PVC

P = PUR

E = TPE

Standard Lengths Available:

003 = 0.3 m

006 = 0.6 m

010 = 1.0 m

015 = 1.5 m

020 = 2 m

030 = 3 m

050 = 5 m



M8 Female - M12 Male	M8 Female - M12 Male
Straight - Right Angle	Right Angle - Right Angle
60 VAC/VDC (3wire), 30 VAC/VDC (4wire)	60 VAC/VDC (3wire), 30 VAC/VDC (4wire), 10-30 VDC (LED)
4 A	4 A
BCC M313-M423-3E-300- _X43T2- _ _ _	BCC M323-M423-3E-300- _X43T2- _ _ _
	BCC M323-M423-3E-602- _X43T2- _ _ _
	BCC M323-M423-3E-603- _X43T2- _ _ _
BCC M314-M424-3E-304- _X44T2- _ _ _	BCC M324-M424-3E-304- _X44T2- _ _ _

Standard Cable Jackets:

V = PVC

P = PUR

E = TPE

Standard Lengths Available:

003 = 0.3 m

006 = 0.6 m

010 = 1.0 m

015 = 1.5 m

020 = 2 m

030 = 3 m

050 = 5 m

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12 single-ended cordsets



M12 Single-Ended

Type	M12 Female	M12 Female	
Configuration	Straight	Right Angle	
Voltage Rating	250 VAC/VDC (3&4wire), 36 VDC (LED)	250 VAC/VDC (3&4wire), 36 VDC (LED)	
Amperage	4 A	4 A	
3-wire, non-LED, N/O signal	BCC M415-0000-1A-001- _X43T2- _ _ _	BCC M425-0000-1A-001- _X43T2- _ _ _	
3-wire, non-LED, N/C signal	BCC M415-0000-1A-002- _X43T2- _ _ _	BCC M425-0000-1A-002- _X43T2- _ _ _	
3-wire, PNP-LED, N/O signal	BCC M415-0000-1A-004- _X43T2- _ _ _	BCC M425-0000-1A-004- _X43T2- _ _ _	
3-wire, PNP-LED, N/C signal	BCC M415-0000-1A-005- _X43T2- _ _ _	BCC M425-0000-1A-005- _X43T2- _ _ _	
3-wire, NPN-LED, N/O signal	BCC M415-0000-1A-006- _X43T2- _ _ _	BCC M425-0000-1A-006- _X43T2- _ _ _	
3-wire, NPN-LED, N/C signal	BCC M415-0000-1A-007- _X43T2- _ _ _	BCC M425-0000-1A-007- _X43T2- _ _ _	
4-wire, non-LED, N/O and N/C signal	BCC M415-0000-1A-003- _X44T2- _ _ _	BCC M425-0000-1A-003- _X44T2- _ _ _	
4-wire, PNP-LED, N/O signal	BCC M415-0000-1A-008- _X44T2- _ _ _	BCC M425-0000-1A-008- _X44T2- _ _ _	
4-wire, PNP-LED, N/O and N/C signal		BCC M425-0000-1A-010- _X44T2- _ _ _	
4-wire, NPN-LED, N/O signal	BCC M415-0000-1A-009- _X44T2- _ _ _	BCC M425-0000-1A-009- _X44T2- _ _ _	

Standard Cable Jackets:

V = PVC

P = PUR

E = TPE

Standard Lengths Available:

020 = 2 m

050 = 5 m

100 = 10 m

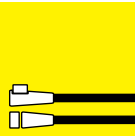
For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12 single-ended cordsets



M12 Male	M12 Male
Straight	Right Angle
250 VAC/VDC (3&4wire), 36 VDC (LED)	250 VAC/VDC (3&4wire), 36 VDC (LED)
4 A	4 A
BCC M413-0000-2A-001- _X43T2- _ _ _	BCC M423-0000-2A-001- _X43T2- _ _ _
BCC M413-0000-2A-002- _X43T2- _ _ _	BCC M423-0000-2A-002- _X43T2- _ _ _
	BCC M423-0000-2A-004- _X43T2- _ _ _
	BCC M423-0000-2A-005- _X43T2- _ _ _
BCC M414-0000-2A-003- _X44T2- _ _ _	BCC M424-0000-2A-003- _X44T2- _ _ _
	BCC M424-0000-2A-008- _X44T2- _ _ _



For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12-M12 double-ended cordsets



M12-M12 Double-Ended

Type			M12 Female - M12 Male	
Configuration			Straight - Straight	
Voltage Rating			250 VAC / VDC (non-LED), 10-30 VDC (LED)	
Amperage			4 A	
	Female LED	Male LED		
3-wire, non-LED	---	---	BCC M415-M413-3A-300- _X43T2- _ _ _	
3-wire, PNP-LED, Head 1	N/O	---	BCC M415-M413-3A-602- _X43T2- _ _ _	
3-wire, PNP-LED, Head 1&2	N/O	N/O		
3-wire, NPN-LED, Head 1	N/O	---	BCC M415-M413-3A-603- _X43T2- _ _ _	
4-wire, non-LED	---	---	BCC M415-M414-3A-304- _X44T2- _ _ _	
4-wire, PNP-LED, Head 1	N/O	---	BCC M415-M414-3A-606- _X44T2- _ _ _	
4-wire, PNP-LED, Head 1	N/O and N/C	---		
4-wire, PNP-LED, Head 1 & 2	N/O	N/O		
4-wire, PNP-LED, Head 1 & 2	N/O and N/C	N/O		
4-wire, NPN-LED, Head 1	N/O	---	BCC M415-M414-3A-607- _X44T2- _ _ _	

Standard Cable Jackets:

V = PVC

P = PUR

E = TPE

Standard Lengths Available:

003 = 0.3 m

006 = 0.6 m

010 = 1.0 m

015 = 1.5 m

020 = 2 m

030 = 3 m

050 = 5 m

For list of order codes and available lengths, see the index in section t.

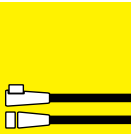
Connectivity Solutions

M12-M12 double-ended cordsets



M12 Female - M12 Male	M12 Female - M12 Male	M12 Female - M12 Male
Right Angle - Straight	Straight - Right Angle	Right Angle - Right Angle
250 VAC / VDC (non-LED), 10-30 VDC (LED)	250 VAC / VDC (non-LED), 10-30 VDC (LED)	250 VAC / VDC (non-LED), 10-30 VDC (LED)
4 A	4 A	4 A

BCC M425-M413-3A-300- _X43T2- _ _ _	BCC M415-M423-3A-300- _X43T2- _ _ _	BCC M425-M423-3A-300- _X43T2- _ _ _
BCC M425-M413-3A-602- _X43T2- _ _ _	BCC M415-M423-3A-602- _X43T2- _ _ _	BCC M425-M423-3A-602- _X43T2- _ _ _
	BCC M415-M423-3A-302- _X43T2- _ _ _	BCC M425-M423-3A-302- _X43T2- _ _ _
BCC M425-M413-3A-603- _X43T2- _ _ _	BCC M415-M423-3A-603- _X43T2- _ _ _	BCC M425-M423-3A-603- _X43T2- _ _ _
BCC M425-M414-3A-304- _X44T2- _ _ _	BCC M415-M424-3A-304- _X44T2- _ _ _	BCC M425-M424-3A-304- _X44T2- _ _ _
BCC M425-M414-3A-606- _X44T2- _ _ _	BCC M415-M424-3A-606- _X44T2- _ _ _	BCC M425-M424-3A-606- _X44T2- _ _ _
BCC M425-M414-3A-650- _X44T2- _ _ _		BCC M425-M424-3A-650- _X44T2- _ _ _
	BCC M415-M424-3A-306- _X44T2- _ _ _	BCC M425-M424-3A-306- _X44T2- _ _ _
BCC M425-M414-3A-651- _X44T2- _ _ _		BCC M425-M424-3A-651- _X44T2- _ _ _
BCC M425-M414-3A-607- _X44T2- _ _ _	BCC M415-M424-3A-607- _X44T2- _ _ _	BCC M425-M424-3A-607- _X44T2- _ _ _



For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12-M8 double-ended cordsets



M12-M8 Double-Ended

Type			M12 Female - M8 Male
Configuration			Straight - Straight
Voltage Rating			60 VAC/VDC (3wire) 30 VAC/VDC (4wire) 10-30 VDC (LED)
Amperage			4 A
	Female LED	Male LED	
3-wire, non-LED	---	---	BCC M415-M313-3F-300- _X43T2- _ _ _
3-wire, PNP-LED, Head 1	N/O	---	BCC M415-M313-3F-602- _X43T2- _ _ _
3-wire, NPN-LED, Head 1	N/O	---	BCC M415-M313-3F-603- _X43T2- _ _ _
4-wire, non-LED	---	---	BCC M415-M314-3F-304- _X44T2- _ _ _
4-wire, PNP-LED, Head 1	N/O	---	BCC M415-M314-3F-606- _X44T2- _ _ _
4-wire, PNP-LED, Head 1	N/O and N/C	---	
4-wire, NPN-LED, Head 1	N/O	---	BCC M415-M314-3F-607- _X44T2- _ _ _

Standard Cable Jackets:

V = PVC

P = PUR

E = TPE

Standard Lengths Available:

003 = 0.3 m

006 = 0.6 m

010 = 1.0 m

015 = 1.5 m

020 = 2 m

030 = 3 m

050 = 5 m

For list of order codes and available lengths, see the index in section t.

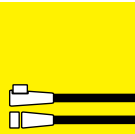
Connectivity Solutions

M12-M8 double-ended cordsets



M12 Female - M8 Male	M12 Female - M8 Male	M12 Female - M8 Male
Right Angle - Straight	Straight - Right Angle	Right Angle - Right Angle
60 VAC/VDC (3wire)	60 VAC/VDC (3wire)	60 VAC/VDC (3wire)
30 VAC/VDC (4wire)	30 VAC/VDC (4wire)	30 VAC/VDC (4wire)
10-30 VDC (LED)	10-30 VDC (LED)	10-30 VDC (LED)
4 A	4 A	4 A

BCC M425-M313-3F-300- X43T2- _ _ _	BCC M415-M323-3F-300- X43T2- _ _ _	BCC M425-M323-3F-300- X43T2- _ _ _
BCC M425-M313-3F-602- X43T2- _ _ _	BCC M415-M323-3F-602- X43T2- _ _ _	BCC M425-M323-3F-602- X43T2- _ _ _
BCC M425-M313-3F-603- X43T2- _ _ _	BCC M415-M323-3F-603- X43T2- _ _ _	BCC M425-M323-3F-603- X43T2- _ _ _
BCC M425-M314-3F-304- X44T2- _ _ _	BCC M415-M324-3F-304- X44T2- _ _ _	BCC M425-M324-3F-304- X44T2- _ _ _
BCC M425-M314-3F-606- X44T2- _ _ _	BCC M415-M324-3F-606- X44T2- _ _ _	BCC M425-M324-3F-606- X44T2- _ _ _
BCC M425-M314-3F-650- X44T2- _ _ _		BCC M425-M324-3F-650- X44T2- _ _ _
BCC M425-M314-3F-607- X44T2- _ _ _	BCC M415-M324-3F-607- X44T2- _ _ _	BCC M425-M324-3F-607- X44T2- _ _ _



For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12 4-wire+PE, 5-wire, 8-wire, 12-wire cordsets



Single-Ended

Type	M12 Female	M12 Female	
Configuration	Straight	Right Angle	
Voltage Rating	(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)	(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)	
Amperage	(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)	(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)	
Conductor Cross-Section	(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)	(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)	
4-wire+PE, non-LED	BCC M415-0000-1A-034-PX0534-__ _	BCC M425-0000-1A-034-PX0534-__ _	
4-wire+PE, PNP-LED, N/O & N/C signals		BCC M425-0000-1A-040-PX0534-__ _	
5-wire, non-LED	BCC M415-0000-1A-017-PX0534-__ _	BCC M425-0000-1A-017-PX0534-__ _	
5-wire, PNP-LED, N/O & N/C signals		BCC M425-0000-1A-039-PX0534-__ _	
8-wire, non-LED	BCC M418-0000-1A-044-PX0825-__ _	BCC M428-0000-1A-044-PX0825-__ _	
12-wire, non-LED	BCC M41C-0000-1A-049- _X_C25-__ _	BCC M42C-0000-1A-049- _X_C25-__ _	



Double-Ended

Type	M12 Female - M12 Male	M12 Female - M12 Male	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	4p+PE & 5p = 125V, 8p=60V, 12p = 30V	125V	
Amperage	4p+PE & 5p = 4A, 8p=2A, 12p = 1A	4A	
Conductor Cross-Section	4p+PE & 5p = 0.34 mm ² , 8p & 12p = 0.25 mm ² ; Yellow = 22 AWG	0.34 mm ²	
Cable Jacket Material	Black PUR, Yellow TPE, Yellow PVC	Black PUR	
4-wire+PE, non-LED	BCC M415-M415-3A-313-PX0534-__ _	BCC M425-M415-3A-313-PX0534-__ _	
4-wire+PE, PNP-N/O & N/C signals		BCC M425-M415-3A-661-PX0534-__ _	
5-wire, non-LED	BCC M415-M415-3A-312-__ _	BCC M425-M415-3A-312-PX0534-__ _	
5-wire, PNP-N/O & N/C signals		BCC M425-M415-3A-660-PX0534-__ _	
8-wire, non-LED	BCC M418-M418-3A-342-PX0825-__ _		
12-wire, non-LED	BCC M41C-M41C-3A-325-PX0C25-__ _		

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12 4-wire+PE, 5-wire, 8-wire, 12-wire



M12 Male	M12 Male
Straight	Right Angle
(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)	(4p+PE, 5p = 125 V), (8p = 60 V), (12p = 30 V)
(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)	(4p+PE, 5p = 4 A), (8p = 2 A), (12p = 1 A)
(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)	(5p = 0.34 mm ²), (8p, 12p = 0.25 mm ²)
BCC M415-0000-2A-034-PX0534-_-_-	
BCC M415-0000-2A-017-PX0534-_-_-	
BCC M418-0000-2A-044-_X_825-_-_-	BCC M428-0000-2A-044-_X_825-_-_-
BCC M41C-0000-2A-049-_X_C25-_-_-	BCC M42C-0000-2A-049-_X_C25-_-_-

Standard Cable Jackets:

VX8= PVC (grey, 8)

PX0 = PUR (black, 0)

Standard Lengths Available:

020 = 2 m

050 = 5 m

100 = 100 m



M12 Female - M12 Male	M12 Female - M12 Male
Straight - Straight	Right Angle - Straight
125V	125V
4A	4A
0.34 mm ²	0.34 mm ²
Orange High Shore PUR, Weld Resistant*	Orange High Shore PUR, Weld Resistant*
BCC M415-M415-3A-313-PW3534-006	BCC M425-M415-3A-313-PW3534-006
BCC M425-M415-3A-661-PW3534-006	

Jacket Materials:

Yellow PVC = VX45T2

Black PUR = PX0534

Yellow TPE = EX45T2

Available Lengths:

003 = 0.3 m

006 = 0.6 m

010 = 1.0 m

015 = 1.5 m

020 = 2.0 m

030 = 3.0 m

050 = 5.0 m

100 = 10.0 m

*Also available in single-ended versions. See page 3.37.

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12 shielded cordsets



Single-Ended

Type	M12 Female	M12 Female	
Configuration	Straight	Right Angle	
Voltage Rating	(3p, 4p = 250 V), (4p+PE, 5p = 125 V), (8p = 60 V)	(3p, 4p = 250 V), (4p+PE, 5p = 125 V), (8p = 60 V)	
Amperage	(3p, 4p = 4 A), (5p = 4 A), (8p = 2 A)	(3p, 4p = 4 A), (5p = 4 A), (8p = 2 A)	
Conductor Cross-Section	(3p, 4p, 5p = 0.34 mm ²), (8p = 0.25 mm ²)	(3p, 4p, 5p = 0.34 mm ²), (8p = 0.25 mm ²)	
3-wire, non-LED, N/O signal, shielded	BCC M415-0000-1A-036- S_334-__	BCC M425-0000-1A-036- S_334-__	
3-wire, non-LED, N/C signal, shielded	BCC M415-0000-1A-037- S_334-__	BCC M425-0000-1A-037- S_334-__	
4-wire, non-LED, shielded	BCC M415-0000-1A-014- S_434-__	BCC M425-0000-1A-014- S_434-__	
4-wire+PE, non-LED, shielded	BCC M415-0000-1A-043-PS0534-__	BCC M425-0000-1A-043-PS0534-__	
5-wire, non-LED, shielded	BCC M415-0000-1A-016-PS0525-__		
8-wire, non-LED, shielded	BCC M418-0000-1A-046-PS0825-__	BCC M428-0000-1A-046-PS0825-__	



Double-Ended

Type	M12 Female - M12 Male
Configuration	Straight - Straight
Voltage Rating	4p = 250V, 8p = 60V
Amperage	4p = 4A, 8p = 2A
Conductor Cross-Section	4p = 0.34 mm ² , 8p = 0.25 mm ²
4-wire, non-LED, shielded	BCC M415-M414-3A-305-PS0434-__
8-wire, non-LED, shielded	BCC M418-M418-3A-351-PS0825-003

Available Lengths:

010 = 1.0 m
 020 = 2.0 m
 025 = 2.5 m
 050 = 5.0 m
 100 = 10.0 m
 200 = 20.0 m

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M12 shielded cordsets



M12 Male	M12 Male
Straight	Right Angle
250 V	250 V
4 A	4 A
(3p, 4p, 5p = 0.34 mm ²)	(3p, 4p = 0.34 mm ²), (8p = 0.25 mm ²)
BCC M413-0000-2A-036- S_334- _ _ _	BCC M423-0000-2A-036- S_334- _ _ _
BCC M413-0000-2A-037- S_334- _ _ _	BCC M423-0000-2A-037- S_334- _ _ _
BCC M414-0000-2A-014- S_434- _ _ _	BCC M424-0000-2A-014- S_434- _ _ _
BCC M415-0000-2A-043-PS0534- _ _ _	BCC M425-0000-2A-043-PS0534- _ _ _

Standard Cable Jackets:

VS8 = PVC (grey, 8)

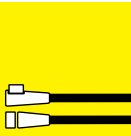
PS0 = PUR (black, 0)

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 100 meters



For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8 and M12 specialty cables
IP69K, ECOLAB, stainless



Single-Ended

Type	ECOLAB, H2O2 Reistant, Stainless IP68	IP69K Rated, 1.4404 Stainless
Configuration	Stainless Nut, Grey Overmold & PUR Cable	Stainless Nut, Black Overmold
Voltage Rating	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12)
Amperage	4 A	4 A

M8 Versions

M8 Female, 3-wire, Straight	BCC S313-0000-10-001-PX8334-100-C002	
M8 Female, 3-wire, Right Angle	BCC S323-0000-10-001-PX8334-100-C002	
M8 Female, 3-wire, Right Angle, N/O PNP-LED	BCC S323-0000-10-004-PX8334-030-C002	BCC S323-0000-10-004-PX0334-___
M8 Female, 4-wire, Straight	BCC S314-0000-10-003-PX8434-100-C002	
M8 Female, 4-wire, Right Angle	BCC S324-0000-10-003-PX8434-100-C002	

M12 Versions

M12 Female, 3-wire, Straight		
M12 Female, 3-wire, Right Angle		
M12 Female, 3-wire, Right Angle, PNP-LED, N/O	BCC S425-0000-1A-004-PX8334-030-C002	BCC S425-0000-1A-004-PX0334-___
M12 Female, 4-wire, Straight	BCC S415-0000-1A-003-PX8434-___-C002	BCC S415-0000-1A-003-VX8434-___
M12 Female, 4-wire, Straight, N/O PNP-LED		
M12 Female, 4-wire, Right Angle	BCC S425-0000-1A-003-PX8434-___-C002	BCC S425-0000-1A-003-VX8434-___
M12 Female, 4-wire, Right Angle, N/O PNP-LED	BCC S425-0000-1A-008-PX8434-100-C002	BCC S425-0000-1A-008-PX0434-___
M12 Female, 5-wire, Straight	BCC S415-0000-1A-017-PX8534-___-C002	
M12 Female, 5-wire, Straight, Braided Shield	BCC S415-0000-1A-017-PS8525-___-C002	
M12 Female, 5-wire, Right Angle	BCC S425-0000-1A-017-PX8534-___-C002	
M12 Female, 5-wire, Right Angle, Braided Shield	BCC S425-0000-1A-017-PS8525-100-C002	
M12 Female, 8-wire, Straight, Braided Shield	BCC S418-0000-1A-069-PS8825-___-C002	

Standard Lengths Available:

- 100 = 10 meters
- 200 = 20 meters
- 250 = 25 meters

Standard Lengths Available:

- | | |
|-----------------|-------------------|
| LED | Non-LED |
| 030 = 3 meters | 100 = 10.0 meters |
| 050 = 5 meters | 150 = 15.0 meters |
| 100 = 10 meters | 200 = 20.0 meters |



Double-Ended

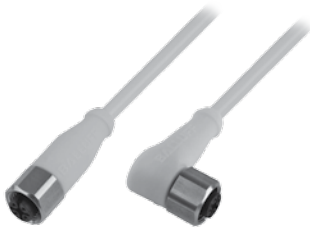
Type	1.4404 Stainless, IP69K Rated	1.4404 Stainless, IP69K Rated
Configuration	Stainless Nut, Yellow Overmold & PVC Cable	Stainless Nut, Yellow Overmold & PVC Cable
Voltage Rating	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)
Amperage	4 A	4 A

M12 Female - M12 Male, 4-wire	BCC S415-S414-3A-304-VX44T2-___	BCC S425-S414-3A-304-VX44T2-___
M12 Female - M12 Male, 4-wire, N/O PNP-LED	BCC S415-S414-3A-606-VX44T2-___	BCC S425-S414-3A-606-VX44T2-___

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8 and M12 specialty cables
Stainless, high temperature



1.4404 Stainless, IP69K Rated	High Temperature
Stainless Nut, Yellow Overmold & PVC Cable	-25°C...120°C
60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)	125 VAC / 150 VDC
4 A	4 A

BCC S313-0000-10-001-VX43T2-__ (IP67)	BCC M313-0000-10-001-PH0334-050
BCC S323-0000-10-001-VX43T2-__	
BCC S314-0000-10-003-VX44T2-__ (IP67)	
BCC S324-0000-10-003-VX44T2-__	

	BCC M415-0000-1A-001-PH0334-__
	BCC M425-0000-1A-001-PH0334-__
BCC S425-0000-1A-004-VX43T2-__	
BCC S415-0000-1A-003-VX44T2-__	BCC M415-0000-1A-003-PH434-__
BCC S415-0000-1A-008-VX44T2-__	
BCC S425-0000-1A-003-VX44T2-__	BCC M425-0000-1A-003-PH434-__
BCC S425-0000-1A-008-VX44T2-__	

Standard Lengths Available:
020 = 2 meters
050 = 5 meters
100 = 10 meters

Standard Lengths Available:
020 = 2 meters
050 = 5 meters
100 = 10 meters



1.4404 Stainless, IP69K Rated	1.4404 Stainless, IP69K Rated
Stainless Nut, Yellow Overmold & PVC Cable	Stainless Nut, Yellow Overmold & PVC Cable
60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12 non-LED), 36 V (M12 LED)
4 A	4 A

BCC S415-S424-3A-304-VX44T2-__	BCC S425-S424-3A-304-VX44T2-__
BCC S415-S424-3A-606-VX44T2-__	BCC S425-S424-3A-606-VX44T2-__

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8 and M12 specialty cables

Global cables, economy line



M8 and M12 Specialty

Type	Global Cables	Economy Line	
Unique Specification	Black Overmold, Yellow PVC Cable	non-UL / non-CSA, Black PVC	
Voltage Rating	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12)	60 V (M8 3-wire), 30 V (M8 4-wire), 250 V (M12)	
Amperage	4 A	4 A	

M8 Versions

M8 Female Straight, 3-wire	BCC M313-0000-10-001-VX43T2-__-C013	BCC M313-0000-10-001-VI0325-__-	
M8 Female Right Angle, 3-wire	BCC M323-0000-10-001-VX43T2-__-C013	BCC M323-0000-10-001-VI0325-__-	
M8 Female Right Angle, 3-wire, PNP-LED, N/O			
M8 Female Straight, 4-wire	BCC M314-0000-10-003-VX44T2-__-C013	BCC M314-0000-10-003-VI0425-__-	
M8 Female Right Angle, 4-wire	BCC M324-0000-10-003-VX44T2-__-C013	BCC M324-0000-10-003-VI0425-__-	

M12 Versions

M12 Female Straight, 3-wire			
M12 Female Right Angle, 3-wire	BCC M415-0000-1A-003-VX44T2-__-C013	BCC M415-0000-1A-003-VI0425-__-	
M12 Female Right Angle, 3-wire, PNP-LED, N/O			
M12 Female Straight, 4-wire	BCC M425-0000-1A-003-VX44T2-__-C013	BCC M425-0000-1A-003-VI0425-__-	
M12 Female Right Angle, 4-wire			
M12 Female Straight, 4-wire+PE			
M12 Female Right Angle, 4-wire+PE, PNP-LED, N/O&N/C			

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

Standard Lengths Available:

050 = 5 meters

100 = 10 meters

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8 and M12 specialty cables

High shore, coiled



	Weld Resistant, High Shore PUR*	Short Coil Cable	Long Coil Cable
	UL-AWM Style 20549, Orange cable	0.5m / 1.4m (coiled/stretched)	1.2m / 3.7m (coiled/stretched)
	250 VAC / VDC (3&4-wire), 60 VDC (5-wire), 30 VDC (LED)	250 VAC / VDC	250 VAC / VDC,
	4 A	4 A	4 A

	BCC M323-0000-10-004-PW3334-030		

	BCC M425-0000-1A-001-PW3334-__ _		
	BCC M425-0000-1A-004-PW3334-__ _		
	BCC M415-0000-1A-003-PW3434-__ _	BCC M415-0000-1A-003-PC44T2-05/14	BCC M415-0000-1A-003-PC44T2-12/37
		BCC M425-0000-1A-003-PC44T2-05/14	BCC M425-0000-1A-003-PC44T2-12/37
	BCC M415-0000-1A-034-PW3534-__ _		
	BCC M425-0000-1A-040-PW3534-__ _		

*Also available in double-ended versions, see page 3.31

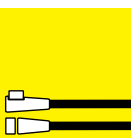
Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

For list of order codes and available lengths, see the index in section t.



Connectivity Solutions

M8 and M12 splitters



M8 Splitters

Type	M8 Female (x2) - M12 Male	M8 Female (x2) - M12 Male	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	60 VAC / 75 VDC	60 VAC / 75 VDC	
Amperage	4 A	4 A	
Wiring	Jacket Mat.		
3-wire, non-LED	PVC	BCC M414-M313-M313-U2012-___	BCC M414-M323-M323-U2012-___
3-wire, non-LED	PUR (black)		
3-wire, OR Logic	PUR (black)		



M12 Splitters

Type	Flying Leads (x2) - M12 Male	M12 Female (x2) - M12 Male	
Configuration	Open - Straight	Straight - Straight	
Voltage Rating	250 VAC/ VDC	250 VAC / VDC	
Amperage	4 A	4 A	
Wiring	Jacket Mat.		
3-wire, non-LED, N/O	PVC	BCC M414-0000-0000-U2009-___	BCC M414-M415-M415-U2010-___
3-wire, non-LED, N/O	TPE		BCC M414-M415-M415-U2002-___
3-wire, PNP-LED, N/O	TPE		BCC M414-M415-M415-U2011-___
3-wire+PE, non-LED, N/O	PVC (black)		
3-wire, AND Logic	TPE		C04 EEC-04-TY-002M-V-F039
4-wire+PE, OR Logic	PVC (black)		
4-wire, N/C or N/O, non-LED	PUR (black)		BCC M414-M415-M415-U2018-002

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8 and M12 splitters



M8 Female (x2) - M8 Male	M8 Female (x2) - M12 Male
Straight - Straight	U-style
30 VAC / 30 VDC	60 VAC / 60 VDC
4 A	4 A
BCC M415-M313-M313-U0014-000	
BCC M314-M313-M313-U2024-_-_-	
BCC M313-M313-M313-U2017-003	

Standard Lengths Available:

- 003 = 0.3 m
- 006 = 0.6 m
- 010 = 1.0 m
- 020 = 2 m
- 050 = 5 m



M12 Female (x2) - M12 Male	M12 Female (x2) - M12 Male
Right Angle - Straight	U-style
250 VAC / VDC	250 VAC / VDC
4 A	4 A
BCC M414-M425-M425-U2010-_-_-	
BCC M414-M425-M425-U2002-_-_-	
BCC M414-M425-M425-U2011-_-_-	
BCC M415-M415-M415-U0003-000	
BCC M415-M415-M415-U0016-000	

Standard Lengths Available:

- 003 = 0.3 m
- 006 = 0.6 m
- 010 = 1.0 m
- 020 = 2 m
- 050 = 5 m

Flying Lead Standard Lengths:

- 020 = 2 m
- 050 = 5 m

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

1/2" dual keyway single-ended

1/2" dual keyway double-ended



1/2" Dual Keyway Single-Ended

Type	1/2" Dual Keyway Female	1/2" Dual Keyway Female
Configuration	Straight	Right Angle
Voltage Rating	250 VAC / VDC	250 VAC / VDC
Amperage	4 A	4 A
3-wire, 22AWG	C21 AE3-00-__Y-__F	C21 BE3-00-__Y-__F
3-wire, 22 AWG, Stainless Steel Nut	C21 AS3-00-__Y-__F	C21 BS3-00-__Y-__F
3-wire, 18AWG	C21 AE3-00-VY-__F-8	C21 BE3-00-VY-__F-8
4-wire, 18AWG	C21 AE4-00-VY-__F-8	C21 BE4-00-VY-__F-8
4-wire, 22 AWG, Braided Shield	C21 AE4-00-VY-__FB	C21 BE4-00-VY-__FB
5-wire, 22 AWG, Braided Shield	C21 AE5-00-VY-__FB	
6-wire, 22 AWG, Braided Shield	C21 AE6-00-VY-__FB	C21 BE6-00-VY-__FB

Standard Cable Jackets:

V = PVC

T = TPE

Single-Ended Std Lengths:

060F = 6 feet

120F = 12 feet

150F = 15 feet

300F = 30 feet



1/2" Dual Keyway Double-Ended

1/2" AC Female - 7/8" Male	1/2" AC Female - 1/2" AC Male	1/2" AC Female - 1/2" AC Male
Straight - Straight	Straight - Straight	Right Angle - Straight
250 VAC / VDC	250 VAC / VDC	250 VAC / VDC
4 A	4 A	4 A
3-wire, 22AWG	C21 EE3-21-TY-__F	C21 GE3-21-TY-__F

Double-Ended Std Lengths:

010F = 1 foot

030F = 3 feet

060F = 6 feet

120F = 12 feet

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

1/2" dual keyway double-ended



1/2" AC - 7/8" Double-Ended

1/2" AC Female - 7/8" Male	1/2" AC Female - 7/8" Male	1/2" AC Female - 7/8" Male
Straight - Straight	Straight - Straight	Right Angle - Straight
250 VAC / VDC	250 VAC / VDC	250 VAC / VDC
4 A	4 A	4 A
3-wire, 18AWG	C21 EE3-05- _Y- _ _ M	C21 GE3-05- _Y- _ _ M

Standard Cable Jackets:

V = PVC

T = TPE

Single-Ended Std Lengths:

002 = 0.2 m

006 = 0.6 m



1/2" AC Female - 1/2" AC Male	1/2" AC Female - 1/2" AC Male
Straight - Right Angle	Right Angle - Right Angle
250 VAC / VDC	250 VAC / VDC / VDC
4 A	4 A
C21 FE3-21-TY- _ _ F	C21 HE3-21-TY- _ _ F

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

7/8" single-ended MINI cordset



7/8" Single-Ended

Type	7/8" Female (Int Threads)	7/8" Female (Int Threads)	
Configuration	Straight	Right Angle	
Voltage Rating	300 V AC/DC	300 V AC/DC	
Amperage	12 A (3-wire)/9 A (4- and 5-wire)	12 A (3-wire)/9 A (4- and 5-wire)	
Conductor Cross-Section	16 AWG	16 AWG	
3-wire US-Color Code	BCC A313-0000-10-071-VX43W6-__	BCC A323-0000-10-071-VX43W6-__	
4-wire US-Color Code	BCC A314-0000-10-072-VX44W6-__	BCC A324-0000-10-072-VX44W6-__	
4-wire DC-Color Code	BCC A314-0000-10-003-_X44W6-__	BCC A324-0000-10-003-_X44W6-__	
5-wire DC-Color Code	BCC A315-0000-10-063-VX45W6-__	BCC A325-0000-10-063-VX45W6-__	

Standard Cable Jackets:

V = PVC
E = TPE

Standard Lengths Available:

20 = 2 meters
050 = 5 meters
100 = 10 meters
150 = 15 meters
200 = 20 meters

Bulk Cables

Bulk Cable	BCC0AEF	BCC0AEH	BCC0AEJ	BCC0APC	
Jacket Material	PVC	PVC	PVC	TPE	
Length	100 m	100 m	100 m	100 m	
Number of Conductors	3	4	4	4	
Conductor Color Code	US AC	US AC	DC	DC	
Jacket Color	Yellow	Yellow	Yellow	Yellow	
Conductor Gauge	16 AWG	16 AWG	16 AWG	16 AWG	
Cordsets Used	7/8"	7/8"	7/8"	7/8"	
Temperature Rating	-40...105°C	-40...105°C	-40...105°C	-40...105°C	
Cable Diameter (mm)	10.24 ± 0.20 mm	10.67 ± 0.25 mm	10.67 ± 0.25 mm	10.67 ± 0.25 mm	

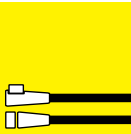
For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

7/8" single-ended mini cordset



7/8" Male (Ext Threads)	7/8" Male (Ext Threads)
Straight	Right Angle
300 V AC/DC	300 V AC/DC
12 A (3-wire)/9 A (4- and 5-wire)	12 A (3-wire)/9 A (4- and 5-wire)
16 AWG	16 AWG
BCC A313-0000-20-071-VX43W6-_-_-_-	BCC A323-0000-20-071-VX43W6-_-_-_-
BCC A314-0000-20-072-VX44W6-_-_-_-	BCC A324-0000-20-072-VX44W6-_-_-_-
BCC A314-0000-20-003-_X44W6-_-_-_-	BCC A324-0000-20-003-_X44W6-_-_-_-
BCC A315-0000-20-063-VX45W6-_-_-_-	BCC A325-0000-20-063-VX45W6-_-_-_-



BCC0AEK	---	---	---
PVC	PVC	PVC	PUR
100 m			
5	6, 7, 8	9, 10, 12	19
DC	US AC	US AC	---
Yellow	Yellow	Yellow	Black
16 AWG	18 AWG	18 AWG	3x 18 AWG, 16 x 22 AWG
7/8"	1"	1 1/8"	1 1/8"
-40...105°C	-40...105°C	-40...105°C	-40...80°C
12.57 ± 0.25 mm	---	---	---

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

7/8" double-ended mini cordset



7/8" Double-Ended - Internal Threads to External Threads

Type	7/8" Female (Int) to 7/8" Male (Ext)	7/8" Female (Int) to 7/8" Male (Ext)	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	300 V AC/DC	300 V AC/DC	
Amperage	12 A (3-wire)/9 A (4- and 5-wire)	12 A (3-wire)/9 A (4- and 5-wire)	
Conductor Cross-Section	16 AWG	16 AWG	
3-wire US-Color Code	BCC A313-A313-30-345-VX43W6-__ _	BCC A323-A313-30-345-VX43W6-__ _	
4-wire US-Color Code	BCC A314-A314-30-346-VX44W6-__ _	BCC A324-A314-30-346-VX44W6-__ _	
4-wire DC-Color Code	BCC A314-A314-30-304- X44W6-__ _	BCC A324-A314-30-304- X44W6-__ _	
5-wire DC-Color Code*	BCC A315-A315-30-335-VX45W6-__ _	BCC A325-A315-30-335-VX45W6-__ _	



7/8" Double-Ended - Internal Threads to Internal Threads

Type	7/8" Female (Int) to 7/8" Male (Int)	7/8" Female (Int) to 7/8" Male (Int)	
Configuration	Straight - Straight	Right Angle - Straight	
Voltage Rating	300 V AC/DC	300 V AC/DC	
Amperage	12 A	12 A	
Conductor Cross-Section	16 AWG	16 AWG	
3-wire US-Color Code	BCC A313-A313-70-345-VX43W6-__ _	BCC A323-A313-70-345-VX43W6-__ _	

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

7/8" double-ended mini cordset



7/8" Female (Int) to 7/8" Male (Ext)	7/8" Female (Int) to 7/8" Male (Ext)
Straight - Right Angle	Right Angle - Right Angle
300 V AC/DC	300 V AC/DC
12 A (3-wire)/9 A (4- and 5-wire)	12 A (3-wire)/9 A (4- and 5-wire)
16 AWG	16 AWG
BCC A313-A323-30-345-VX43W6-___	BCC A323-A323-30-345-VX43W6-___
BCC A314-A324-30-346-VX44W6-___	BCC A324-A324-30-346-VX44W6-___
BCC A314-A324-30-304-__X44W6-___	BCC A324-A324-30-304-__X44W6-___
BCC A315-A325-30-335-VX45W6-___	BCC A325-A325-30-335-VX45W6-___

Standard Cable Jackets:

V = PVC yellow

E = TPE yellow

PX0_A5 = PUR black

Standard Lengths Available:

006 = 0.6 meters

020 = 2 meters

050 = 5 meters

100 = 10 meters

150 = 15 meters

200 = 20 meters



7/8" Female (Int) to 7/8" Male (Int)	7/8" Female (Int) to 7/8" Male (Int)
Straight - Right Angle	Right Angle - Right Angle
300 V AC/DC	300 V AC/DC
12 A	12 A
16 AWG	16 AWG
BCC A313-A323-70-345-VX43W6-___	BCC A323-A323-70-345-VX43W6-___

Standard Lengths Available:

006 = 0.6 meters

020 = 2 meters

050 = 5 meters

100 = 10 meters

150 = 15 meters

200 = 20 meters

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

7/8" accessory connectors



7/8" Double-Ended - Internal Threads to External Threads

Type	7/8" Tee Black	7/8" Tee Yellow	7/8" 90° Elbow	
Configuration	Female - Male Thru, Female Drop	Female - Male Thru, Female Drop	Female - Male	
Voltage Rating	300 VAC/VDC	300 VAC/VDC	600 VAC/VDC	
Amperage	(4p = 8 A), (5p = 8 A/4 A drop)	8 A	8 A	
3-wire	BCC0AA5 BCC A313-A313-A313-T0021-000			
4-wire	BCC0AA6 BCC A314-A314-A314-T0022-000	BCC071Y BCC A314-A314-A314-T0001-000	BCC07Y1 BDN G-P-DEA-01	
5-wire	BCC0AA7 BCC A315-A315-A315-T0023-000			

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

7/8" accessory connectors



7/8" Bulkhead	7/8" to M12 Converter	M12 to 7/8" Converter
Female - Male	Female - Male	Female - Male
600 VAC/VDC	300 V	300 V
(3p = 13 A), (4p = 10 A), (5p = 8 A)	4 A	4 A
BCC0A7M	BCC0A7E	BCC0A7J
BCC A353-A353-30-RN036-000	BCC A313-M413-3E-RA031-000	BCC M415-A313-3F-RA023-000
BCC0723	BCC0A7F	BCC0A7K
BCC A354-A354-30-RN011-000	BCC A314-M414-3E-RA032-000	BCC M415-A314-3F-RA034-000
BCC0A7N	BCC0A7H	BCC0A7L
BCC A355-A355-30-RN037-000	BCC A315-M415-3E-RA033-000	BCC M415-A315-3F-RA035-000

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

1" single-ended mini cordset

1" double-ended mini cordset



1" Single-Ended Female

Type	1" Female (Int Threads)	1" Female (Int Threads)
Configuration	Straight	Right Angle
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(6p = 5.5 A), (7p = 5 A), (8p = 5A)	(6p = 5.5 A), (7p = 5 A), (8p = 5A)
Conductor Cross-Section	18 AWG	18 AWG
6-wire	BCC A416-0000-10-085-VX46W8-__ _	BCC A426-0000-10-085-VX46W8-__ _
7-wire	BCC A417-0000-10-086-VX47W8-__ _	BCC A427-0000-10-086-VX47W8-__ _
8-wire	BCC A418-0000-10-087-VX48W8-__ _	BCC A428-0000-10-087-VX48W8-__ _

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters



1" Single-Ended Male & Double-Ended

Type	1" Male (Int Threads)	1" Female (Int) - 1" Male (Int)
Configuration	Straight	Straight - Straight
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(6p = 5.5 A), (7p = 5 A), (8p = 5A)	(6p = 5.5 A), (7p = 5 A), (8p = 5A)
Conductor Cross-Section	18 AWG	18 AWG
6-wire	BCC A416-0000-C0-085-VX46W8-__ _	BCC A416-A416-70-352-VX46W8-__ _
7-wire	BCC A417-0000-C0-086-VX47W8-__ _	BCC A417-A417-70-358-VX47W8-__ _
8-wire	BCC A418-0000-C0-087-VX48W8-__ _	BCC A418-A418-70-359-VX48W8-__ _

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

1 1/8" single-ended mini cordset

1 1/8" double-ended mini cordset



1 1/8" Single-Ended Female

Type	1 1/8" Female (Int Threads)	1 1/8" Female (Int Threads)
Configuration	Straight	Right Angle
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(9p, 10p, 12p = 4 A), (19p = 3x8 A, 16 x 3 A)	4 A
Conductor Cross-Section	18 AWG	18 AWG
9-wire	BCC A519-0000-10-088-VX49W8-__ _	BCC A529-0000-10-088-VX49W8-__ _
10-wire	BCC A51A-0000-10-089-VX4AW8-__ _	BCC A52A-0000-10-089-VX4AW8-__ _
12-wire	BCC A51C-0000-10-090-VX4CW8-__ _	BCC A52C-0000-10-090-VX4CW8-__ _
19-wire	BCC A51L-0000-10-091-PX0LW8-__ _	

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters



1 1/8" Single-Ended Male & Double-Ended

Type	1 1/8" Male (Int Threads)	1 1/8" Female (Int) - 1 1/8" Male (Int)
Configuration	Straight	Straight - Straight
Voltage Rating	300 VAC/VDC	300 VAC/VDC
Amperage	(9p, 10p, 12p = 4 A), (19p = 3x8 A, 16 x 3 A)	(9p, 10p, 12p = 4 A), (19p = 3x8 A, 16 x 3 A)
Conductor Cross-Section	18 AWG	18 AWG
9-wire	BCC A519-0000-C0-088-VX49W8-__ _	BCC A519-A519-70-360-VX49W8-__ _
10-wire	BCC A51A-0000-C0-089-VX4AW8-__ _	BCC A51A-A51A-70-355-VX4AW8-__ _
12-wire	BCC A51C-0000-C0-090-VX4CW8-__ _	BCC A51C-A51C-70-362-VX4CW8-__ _
19-wire	BCC A51L-0000-C0-091-PX0LW8-__ _	BCC A51L-A51L-70-363-PX0LW8-__ _

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

For list of order codes and available lengths, see the index in section t.

Connectivity Solutions

M8 junction blocks



M8 Junction Blocks (MIBs) - Quick Disconnect

Type	M12 Quick Disconnect	M12 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable	BCC M4_8-0000-1A-044-PX0825-___	BCC M4_C-0000-1A-049-PX0C25-___
3-wire, PNP-LED	BPI 4M303P-2K-00-SM48T	BPI 8M303P-2K-00-SM4CT



M8 Junction Blocks (MIBs) - Cable Out

Type	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
3-wire, PNP-LED	BPI 4M303P-2K-00-KPX60-___	BPI 8M303P-2K-00-KPXA0-___
4-wire, PNP-LED	BPI 4M304P-2K-00-KPXA0-___	BPI 8M304P-2K-00-KP XK0-___

Standard Lengths Available:

030 = 3 meters

050 = 5 meters

100 = 10 meters

150 = 15 meters

Connectivity Solutions

M16 junction blocks



M16 Junction Blocks (MIBs) - Quick Disconnect

Type	M16 Quick Disconnect	M16 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable	CM 16-_N8-00-PB-__M	CM 16-_N8-00-PB-__M
3-wire, non-LED	C49 T4F-16	C49 T8F-16
3-wire, PNP-LED	C49 T4E-16	C49 T8E-16



M16 Junction Blocks (MIBs) - Cable Out

Type	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Current Rating / Block	6 A	6 A
Current Rating / Contact	2 A	2 A
3-wire, non-LED	C49 T4C-00-PB-050M	
3-wire, PNP-LED	C49 T4E-00-PB-__M	C49 T8E-00-PB-__M

Standard Lengths Available:

050 = 5 meters

100 = 10 meters

Connectivity Solutions

M12 junction blocks



M12 Junction Blocks (MIBs) - Quick Disconnect

Type	M23 Quick Disconnect	M23 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Current Rating / Block	6 A	12 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable (3-wire)	BCC M6_C-0000-10-065-PX0BP4-___	BCC M6_C-0000-10-065-PX0BP4-___
Suggested Homerun Cable (4-wire)	BCC M6_L-0000-10-022-PX0LP4-___	BCC M6_L-0000-10-022-PX0LP4-___
3-wire+PE, PNP-LED	BPI 4M4A4P-2K-00-SM6CT	BPI 8M4A4P-2K-00-SM6CT
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-00-SM6LT	BPI 8M4A5P-2K-00-SM6LT



M12 Junction Blocks (MIBs) - Cable Out

Type	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Current Rating / Block	6 A	12 A
Current Rating / Contact	2 A	2 A
3-wire+PE, PNP-LED	BPI 4M4A4P-2K-00-KPX70-___	BPI 8M4A4P-2K-00-KPXB0-___
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-00-KPXB0-___	BPI 8M4A5P-2K-00-KPXL0-___

Standard Lengths Available

030 = 3 meters

050 = 5 meters

100 = 10 meters

150 = 15 meters



M12 Junction Blocks (MIBs) - Quick Disconnect

Type	M23 Quick Disconnect	M23 Quick Disconnect
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Current Rating / Block	6 A	12 A
Current Rating / Contact	2 A	2 A
Suggested Homerun Cable (3-wire)	BCC M6_C-0000-10-065-PX0BP4-___	BCC M6_C-0000-10-065-PX0BP4-___
Suggested Homerun Cable (4-wire)	BCC M6_L-0000-10-022-PX0LP4-___	BCC M6_L-0000-10-022-PX0LP4-___
3-wire+PE, non-LED	C04 T4L-23	C04 T8L-23
3-wire+PE, PNP-LED	C04 T4M-23	C04 T8M-23
3-wire+PE, NPN-LED	C04 T4N-23	C04 T8N-23
4-wire+PE, non-LED	C04 T4Q-23	C04 T8Q-23
4-wire+PE, PNP-LED	C04 T4R-23	C04 T8R-23
4-wire+PE, NPN-LED	C04 T4S-23	C04 T8S-23



M12 Junction Blocks (MIBs) - Cable Out

Type	Cable Out	Cable Out
Configuration	4 port	8 port
Voltage Rating	10...30 VDC	10...30 VDC
Amperage	4A per Port, 12 A per Block	4A per Port, 12 A per Block
3-wire+PE, non-LED	C04 T4L-00-PB-___M	C04 T8L-00-PB-___M
3-wire+PE, PNP-LED	C04 T4M-00-PB-___M	C04 T8M-00-PB-___M
3-wire+PE, NPN-LED	C04 T4N-00-PB-___M	C04 T8N-00-PB-___M
4-wire+PE, non-LED	C04 T4Q-00-PB-___M	C04 T8Q-00-PB-___M
4-wire+PE, PNP-LED	C04 T4R-00-PB-___M	C04 T8R-00-PB-___M
4-wire+PE, NPN-LED	C04 T4S-00-PB-___M	C04 T8S-00-PB-___M

Standard Lengths Available:

050 = 5 meters

100 = 10 meters

Connectivity Solutions

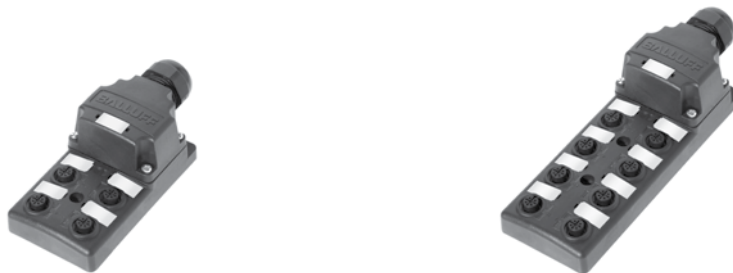
M12 terminal blocks

M12 blocks - M23 homerun cables



M12 Terminal Junction Blocks (MIBs)

Type	Spring Terminals	Spring Terminals
Configuration	4 port	8 port
Voltage Rating	48 VDC	48 VDC
Amperage	3A per Port, 8A per Block	3A per Port, 8A per Block
Cable Diameter	5...13 mm	5...13 mm
3-wire+PE, non-LED	BPI 4M4A40-2K-MC-HHF7	BPI 8M4A40-2K-MC-HHFB
4-wire+PE, non-LED	BPI 4M4A50-2K-MC-HHFB	BPI 8M4A50-2K-MC-HHFL
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-MC-HHFB	BPI 8M4A5P-2K-MC-HHFL
4-wire+PE, NPN-LED	BPI 4M4A5N-2K-MC-HHFB	BPI 8M4A5N-2K-MC-HHFL



M12 Terminal Junction Blocks (MIBs)

Type	Screw Terminals	Screw Terminals
Configuration	4 port	8 port
Voltage Rating	18...30 VDC	18...30 VDC
Amperage	2A per Port, 8A per Block	2A per Port, 8A per Block
4-wire+PE, PNP-LED	BPI 4M4A5P-2K-00-TPSG	BPI 8M4A5P-2K-00-TPSN

Connectivity Solutions

M8 blocks - M12 homerun cables

M8 blocks - M16 homerun cables

M12 blocks - M23 homerun cables



M8 Blocks - M12 Homerun Cables

Type	M12 Female	M12 Female
Configuration	Straight	Right Angle
Voltage Rating	(8p = 60 V), (12p = 30 V)	(8p = 60 V), (12p = 30 V)
Amperage	(8p = 2 A), (12p = 1A)	(8p = 2 A), (12p = 1A)
8-wire	BCC M418-0000-1A-044-PX0825-__ _	BCC M428-0000-1A-044-PX0825-__ _
12-wire	BCC M41C-0000-1A-049-PX0C25-__ _	BCC M42C-0000-1A-049-PX0C25-__ _

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters



M8 Blocks - M16 Homerun Cables

Type	M16 Female	M16 Female
Configuration	Straight	Right Angle
Voltage Rating	300 VAC / VDC	300 VAC / VDC
Amperage	6 A	6 A
12-pin	CM 16-AN8-00-PB-050M	CM 16-BN8-00-PB-__ _M

Standard Lengths Available:

050 = 5 meters

100 = 10 meters

200 = 20 meters



M12 Blocks - M23 Homerun Cables

Type	M23 Female	M23 Female
Configuration	Straight	Right Angle
Voltage Rating	(12p = 250 VAC/VDC), (19p = 125 VAC/VDC)	(12p = 250 VAC/VDC), (19p = 125 VAC/VDC)
Amperage	(12p = 8 A), (19p = 3x8 A)	(12p = 8 A), (19p = 3x8 A)
12-wire	BCC M61C-0000-10-065-PX0BP4-__ _	BCC M62C-0000-10-065-PX0BP4-__ _
19-wire	BCC M61L-0000-10-022-PX0LP4-__ _	BCC M62L-0000-10-022-PX0LP4-__ _

Standard Lengths Available:

020 = 2 meters

050 = 5 meters

100 = 10 meters

Connectivity Solutions

M8 and M23 receptacles



M8 Receptacles

Type	M8 Female	M8 Male	
Configuration	Straight	Straight	
Wire Gauge	24 AWG	24 AWG	
Connector Thread Type	Internal	External	
No. Conductors	Mounting	Order Code/Part Number*	
3-wire	M8 x 0.5	BCC0CTL	BCC0CTN
		BCC M353-0000-10-RM067-006	BCC M353-0000-20-RM067-006
4-wire	M8 x 0.5	BCC0CTF	BCC0CTJ
		BCC M354-0000-10-RM068-006	BCC M354-0000-20-RM068-006

* 2 meter available, replace 006 with 020



M23 Receptacles

Type	M23 Female	M23 Male	
Configuration	Straight	Straight	
Wire Gauge	22 AWG	22 AWG	
Connector Thread Type	External	External	
No. Conductors	Mounting	Order Code/Part Number*	
12-wire	M20	BCC0CTU	BCC0CTR
		BCC M65C-0000-D0-RM078-006	BCC M65C-0000-20-RM078-006
19-wire	M20	BCC0CU0	BCC0CTY
		BCC M65L-0000-D0-RM079-006	BCC M65L-0000-20-RM079-006

* 2 meter available, replace 006 with 020

Connectivity Solutions

M12 A-coded receptacles



M12 A-coded Receptacles

Type			M12 Female	M12 Male
Configuration			Straight	Straight
Wire Gauge			22 AWG (8-wire 24AWG)	22 AWG (8-wire 24AWG)
Connector Thread Type			Internal	External
No. Conductors	Mounting	Nut Coating	Order Code/Part Number*	
3-wire	1/4"-18 NPT	Nickel Brass	BCC0CW9 BCC M453-0000-1A-RN052-006	BCC0CWF BCC M453-0000-2A-RN052-006
	1/2"-14 NPT	Aluminum	BCC0CWC BCC M453-0000-1A-RN058-006	BCC0CWFJ BCC M453-0000-2A-RN058-006
	M16	Nickel Brass	BCC0CY7 BCC M453-0000-1A-RM069-006	BCC0CY9 BCC M453-0000-2A-RM069-006
4-wire	1/4"-18 NPT	Nickel Brass	BCC0CWL BCC M454-0000-1A-RN053-006	BCC0CZ2 BCC M454-0000-2A-RN053-006
		Stainless Steel	BCC0CUE BCC S454-0000-1A-RN053-006	BCC0CUK BCC S454-0000-2A-RN053-006
	1/2"-14 NPT	Aluminum	BCC0CZ0 BCC M454-0000-1A-RN060-006	BCC0CZ4 BCC M454-0000-2A-RN060-006
		Stainless Steel	BCC0CUH BCC S454-0000-1A-RN060-006	BCC0CUM BCC S454-0000-2A-RN060-006
	M16	Nickel Brass	BCC0CWN BCC M454-0000-1A-RM070-006	BCC0CWR BCC M454-0000-2A-RM070-006
4-wire+PE	1/2"-14 NPT	Aluminum	BCC0CYL BCC M455-0000-1A-RN064-006	BCC0CYU BCC M455-0000-2A-RN064-006
	M16	Nickel Brass	BCC0CWY BCC M455-0000-1A-RM072-006	BCC0CY1 BCC M455-0000-2A-RM072-006
5-wire	1/4"-18 NPT	Nickel Brass	BCC0CZ6 BCC M455-0000-1A-RN054-006	BCC0CYN BCC M455-0000-2A-RN054-006
	1/2"-14 NPT	Aluminum	BCC0CZ8 BCC M455-0000-1A-RN063-006	BCC0CYR BCC M455-0000-2A-RN063-006
	M16	Nickel Brass	BCC0CWU BCC M455-0000-1A-RM071-006	BCC0CY0 BCC M455-0000-2A-RM071-006
8-wire	1/4"-18 NPT	Nickel Brass	BCC0CYY BCC M458-0000-1A-RN056-006	BCC0CYC BCC M458-0000-2A-RN056-006
	1/2"-14 NPT	Aluminum	BCC0CYF BCC M458-0000-1A-RN066-006	BCC0CYJ BCC M458-0000-2A-RN066-006
	M16	Nickel Brass	BCC0CY3 BCC M458-0000-1A-RM073-006	BCC0CY5 BCC M458-0000-2A-RM073-006

* 2 meter available, replace 006 with 020

Connectivity Solutions

1/2" dual keyway receptacles



1/2" Dual Keyway Receptacles

Type	1/2" AC Female	1/2" AC Male
Configuration	Straight Dual Keyway	Straight Dual Keyway
Connector Thread Type	Internal	External
Metric Thread - Wire Gauge	22 AWG	22 AWG
NPT Thread - Wire Gauge	22 AWG	22 AWG

No. Conductors	Mounting	Order Code/Part Number	
3-wire	M16		BCC01A8 R21 CA-03-K-22B-010F
	1/4"-18 NPT	BCC02A0	BCC01AC R21 CN-03-A-22B-010F
		R21 AA-03-A-22B-010F	
1/2"-14 NPT		BCC02A4 R21 CA-03-B-22B-010F	
4-wire	1/4"-18 NPT	BCC02A1	BCC01AE R21 CN-04-A-22B-010F
	R21 AA-04-A-22B-010F		
1/2"-14 NPT		BCC02A5 R21 CA-04-B-22B-010F	
5-wire	1/4"-18 NPT	BCC02A2	BCC01AF R21 CN-05-A-22B-010F
	R21 AA-05-A-22B-010F		
1/2"-14 NPT		BCC02A6 R21 CA-05-B-22B-010F	
6-wire	1/4"-18 NPT	BCC02A3	BCC01AH R21 CN-06-A-22B-010F
	R21 AA-06-A-22B-010F		
1/2"-14 NPT		BCC02A7 R21 CA-06-B-22B-010F	

Connectivity Solutions

7/8" receptacles



7/8" Receptacles

Type		7/8" Female	7/8" Female	7/8" Male
Configuration		Straight	Straight	Straight
Wire Gauge		16 AWG	16 AWG	16 AWG
Connector Thread Type		Internal	External	External

No. Conductors	Mounting	Color Code	Order Code/Part Number*	
3-wire	1/2"-14 NPT	AC	BCC0CU2	BCC0CU4
			BCC A353-0000-10-RN057-006	BCC A353-0000-20-RN057-006
	M20	AC	BCC0CUP	BCC0CUT
			BCC A353-0000-10-RM074-006	BCC A353-0000-20-RM074-006
4-wire	1/2"-14 NPT	AC	BCC0CU6	BCC0CU9
			BCC A354-0000-10-RN059-006	BCC A354-0000-20-RN059-006
	DC	BCC071Z	BCC0721	
		BCC A354-0000-10-RN010-003	BCC A354-0000-20-RN010-003	
	M20	AC	BCC0CUZ	BCC0CW3
			BCC A354-0000-10-RM075-006	BCC A354-0000-20-RM075-006
DC	BCC0CW1	BCC0CW4		
	BCC A354-0000-10-RM076-006	BCC A354-0000-20-RM076-006		
5-wire	1/2"-14 NPT	DC	BCC098M	BCC098P
			BCC A355-0000-10-RN022-006	BCC A355-0000-20-RN022-006
	M20	DC	BCC0CW5	BCC0CW7
			BCC A355-0000-10-RM077-006	BCC A355-0000-20-RM077-006

* 2 meter available, replace 006 with 020

Connectivity Solutions

1" receptacles



1" Receptacles

Type	1" Female	1" Male
Configuration	Straight	Straight
Connector Thread Type	External	External
Cable Color Code	US	US
Wire Gauge	18 AWG	18 AWG
Mounting	1/2"-14 NPT	1/2"-14 NPT

No. Conductors	Lead Length	Order Code/Part Number	
6-wire	0.6 m	BCC0A66	BCC0A68
		BCC A456-0000-D0-RN024-006	BCC A456-0000-20-RN024-006
	2.0 m	BCC0A67	BCC0A69
		BCC A456-0000-D0-RN024-020	BCC A456-0000-20-RN024-020
7-wire	0.6 m	BCC0A6A	BCC0A6E
		BCC A457-0000-D0-RN025-006	BCC A457-0000-20-RN025-006
	2.0 m	BCC0A6C	BCC0A6F
		BCC A457-0000-D0-RN025-020	BCC A457-0000-20-RN025-020
8-wire	0.6 m	BCC0A6H	BCC0A6K
		BCC A458-0000-D0-RN026-006	BCC A458-0000-20-RN026-006
	2.0 m	BCC0A6J	BCC0A6L
		BCC A458-0000-D0-RN026-020	BCC A458-0000-20-RN026-020

Connectivity Solutions

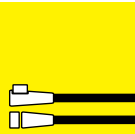
1 1/8" receptacles



1 1/8" Receptacles

Type	1 1/8" Female	1 1/8" Male
Configuration	Straight	Straight
Connector Thread Type	External	External
Cable Color Code	US	US
Wire Gauge (9-12 wire)	18 AWG	18 AWG
Wire Gauge (19-wire)	3x 18 AWG, 16x 22 AWG	3x 18 AWG, 16x 22 AWG
Mounting	1/2"-14 NPT	1/2"-14 NPT

No. Conductors	Lead Length	Order Code/Part Number	
9-wire	0.6 m	BCC0A6M	BCC0A6P
		BCC A559-0000-D0-RN027-006	BCC A559-0000-20-RN027-006
	2.0 m	BCC0A6N	BCC0A6R
		BCC A559-0000-D0-RN027-020	BCC A559-0000-20-RN027-020
10-wire	0.6 m	BCC0A6T	BCC0A6W
		BCC A55A-0000-D0-RN028-006	BCC A55A-0000-20-RN028-006
	2.0 m	BCC0A6U	BCC0A6Y
		BCC A55A-0000-D0-RN028-020	BCC A55A-0000-20-RN028-020
12-wire	0.6 m	BCC0A6Z	BCC0A71
		BCC A55C-0000-D0-RN029-006	BCC A55C-0000-20-RN029-006
	2.0 m	BCC0A70	BCC0A72
		BCC A55C-0000-D0-RN029-020	BCC A55C-0000-20-RN029-020
19-wire	0.6 m	BCC0A73	BCC0A75
		BCC A55L-0000-D0-RN030-006	BCC A55L-0000-20-RN030-006
	2.0 m	BCC0A74	BCC0A76
		BCC A55L-0000-D0-RN030-020	BCC A55L-0000-20-RN030-020



Connectivity Solutions

M8 field attachables



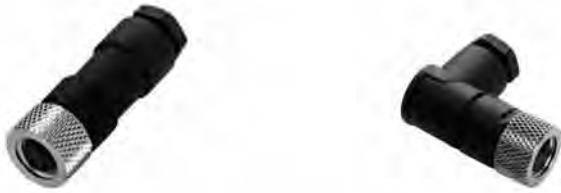
M8 Female Field Attachables

Type	M8 Female	M8 Female	
Configuration	Straight	Straight	
Housing	Plastic/Metal	Plastic	
Connection	Piercon Terminals	Screw Terminals	
Conductor Maximum	0.14...0.38 mm ² (26...22 AWG)	0.14...0.50 mm ² (26...20 AWG)	
No. of Conductors	Cable Ø Range	Order Code/Part Number	
3-wire	3...5 mm	BCC09EU BCC M333-0000-10-000-22X334-000	
	3.5...5 mm		BCC06Z1 BCC M333-0000-10-000-31X350-000
4-wire	3...5 mm	BCC09EY BCC M334-0000-10-000-22X434-000	
	3.5...5 mm		BCC06Z5 BCC M334-0000-10-000-31X450-000



M8 Male Field Attachables

Type	M8 Male	M8 Male	
Configuration	Straight	Straight	
Housing	Plastic/Metal	Plastic	
Connection	Piercon Terminals	Screw Terminals	
Conductor Maximum	0.14...0.38 mm ² (26...22 AWG)	0.14...0.50 mm ² (26...20 AWG)	
No. of Conductors	Cable Ø Range	Order Code/Part Number	
3-wire	3...5 mm	BCC09EW BCC M333-0000-20-000-22X334-000	
	3.5...5 mm		BCC06Z3 BCC M333-0000-20-000-31X350-000
4-wire	3...5 mm	BCC09EZ BCC M334-0000-20-000-22X434-000	
	3.5...5 mm		BCC06Z7 BCC M334-0000-20-000-31X450-000



M8 Female	M8 Female
Straight	Right Angle
Plastic/Metal	Plastic
Solder Cup	Solder Cup
0.14...0.38 mm ² (26...22 AWG)	0.14...0.38 mm ² (26...22 AWG)
BCC06YW	BCC06YY
BCC M333-0000-10-000-34X325-000	BCC M343-0000-10-000-34X325-000

Standard Cable Information

Jacket	Wires	Conductors	Diameter
Yellow PVC	3	22 AWG	4.7 ± 0.15 mm
Yellow PVC	4	22 AWG	5.0 ± 0.15 mm
Grey PVC	3	0.34 mm ²	4.5 ± 0.15 mm
Grey PVC	4	0.34 mm ²	4.8 ± 0.15 mm
Yellow PUR	3	22 AWG	4.3 ± 0.20 mm
Yellow PUR	4	22 AWG	4.7 ± 0.20 mm
Black PUR	3	0.34 mm ²	4.3 ± 0.20 mm
Black PUR	4	0.34 mm ²	4.7 ± 0.20 mm
Yellow TPE	3	22 AWG	5.3 ± 0.13 mm
Yellow TPE	4	22 AWG	5.3 ± 0.13 mm



M8 Male	M8 Male
Straight	Right Angle
Plastic/Metal	Plastic
Solder Cup	Solder Cup
0.14...0.38 mm ² (26...22 AWG)	0.14...0.38 mm ² (26...22 AWG)
BCC06YZ	BCC06Z0
BCC M333-0000-20-000-34X325-000	BCC M343-0000-20-000-34X325-000

Standard Cable Information

Jacket	Wires	Conductors	Diameter
Yellow PVC	3	22 AWG	4.7 ± 0.15 mm
Yellow PVC	4	22 AWG	5.0 ± 0.15 mm
Grey PVC	3	0.34 mm ²	4.5 ± 0.15 mm
Grey PVC	4	0.34 mm ²	4.8 ± 0.15 mm
Yellow PUR	3	22 AWG	4.3 ± 0.20 mm
Yellow PUR	4	22 AWG	4.7 ± 0.20 mm
Black PUR	3	0.34 mm ²	4.3 ± 0.20 mm
Black PUR	4	0.34 mm ²	4.7 ± 0.20 mm
Yellow TPE	3	22 AWG	5.3 ± 0.13 mm
Yellow TPE	4	22 AWG	5.3 ± 0.13 mm

Connectivity Solutions

M12 field attachables



M12 Female Field Attachables

Type	M12 Female	M12 Female	M12 Female
Configuration	Straight	Straight	Straight
Housing	Plastic	Plastic	Plastic
Connection	Screw Terminals	Insulation Displacement	Spring Clamp
Conductor Range	0.14...0.75 mm ² (26...18 AWG)	0.14...0.34 mm ² (26...22 AWG)	0.14...0.50 mm ² (26...20 AWG)

No. of Conductors	Allowable Cable Ø	Order Code/Part Number		
		Order Code	Part Number	Part Number
4-wire	4...6 mm	BCC06Z9 BCC M435-0000-1A-000-41X475-000	BCC06ZY BCC M435-0000-1A-000-43X434-000	
	5...8 mm			
	6...8 mm	BCC06F6 BCC M435-0000-1A-000-51X475-000		BCC06Y6 BCC M435-0000-1A-000-55X450-000
5-wire	2.1...3 mm or 4...5 mm	BCC09JP BCC M435-0000-1A-000-A1X575-000		
	4...6 mm	BCC06ZF BCC M435-0000-1A-000-41X575-000		
	5...8 mm			
	6...8 mm	BCC06W9 BCC M435-0000-1A-000-51X575-000		
8-wire	4...6 mm (shielded)		BCC04MC BCC M478-0000-1A-000-43X834-000	
	6...8 mm (0.14...0.50 mm ²)	BCC0A03 BCC M438-0000-1A-000-51X850-000		
12-wire	6...8 mm (0.14...0.25 mm ²)			BCC0A05* (solder cup) BCC M43C-0000-1A-000-54XC25-000

*Consult factory for availability.

Standard Cable Information

Jacket	Wires	Conductors	Diameter	Jacket	Wires	Conductors	Diameter
Yellow PVC	3	22 AWG	4.7 ± 0.15 mm	Black PUR	3	0.34 mm ²	4.3 ± 0.20 mm
Yellow PVC	4	22 AWG	5.0 ± 0.15 mm	Black PUR	4	0.34 mm ²	4.7 ± 0.20 mm
Grey PVC	3	0.34 mm ²	4.5 ± 0.15 mm	Yellow TPE	3	22 AWG	5.3 ± 0.13 mm
Grey PVC	4	0.34 mm ²	4.8 ± 0.15 mm	Yellow TPE	4	22 AWG	5.3 ± 0.13 mm
Yellow PUR	3	22 AWG	4.3 ± 0.20 mm				
Yellow PUR	4	22 AWG	4.7 ± 0.20 mm				

Connectivity Solutions

M12 field attachables



M12 Female	M12 Female	M12 Female	M12 Female
Right Angle	Straight	Straight	Right Angle
Plastic	Metal (shielded)	Stainless Steel	Stainless Steel
Screw Terminals	Screw Terminals	Screw Terminals	Screw Terminals
0.14...0.75 mm ² (26...18 AWG)	0.14...0.75 mm ² (26...18 AWG)	0.14...0.75 mm ² (26...18 AWG)	0.14...0.75 mm ² (26...18 AWG)
BCC06ZA			
BCC M445-0000-1A-000-41X475-000			
	BCC06ZM		
	BCC M475-0000-1A-000-01X475-000		
BCC06Y8			
BCC M445-0000-1A-000-51X475-000			
BCC06ZH		BCC097P	BCC097T
BCC M445-0000-1A-000-41X575-000		BCC S435-0000-1A-000-41X575-000	BCC S445-0000-1A-000-41X575-000
	BCC06ZN		
	BCC M475-0000-1A-000-01X575-000		
BCC06ZJ		BCC097R	BCC097U
BCC M445-0000-1A-000-51X575-000		BCC S435-0000-1A-000-51X575-000	BCC S445-0000-1A-000-51X575-000
BCC04ME (IDC)			
BCC M488-0000-1A-000-43X834-000			

Connectivity Solutions

M12 field attachables



M12 Male Field Attachables

Type	M12 Male	M12 Male	M12 Male
Configuration	Straight	Straight	Straight
Housing	Plastic	Plastic	Plastic
Connection	Screw Terminals	Insulation Displacement	Spring Clamp
Conductor Maximum	0.14...0.75 mm ² (26...18 AWG)	0.14...0.34 mm ² (26...22 AWG)	0.14...0.50 mm ² (26...20 AWG)

No. of Conductors	Allowable Cable Ø	Order Code/Part Number		
4-wire	4...6 mm	BCC06M4 BCC M434-0000-2A-000-41X475-000	BCC08C0 BCC M434-0000-2A-000-43X434-000	
	5...8 mm			
	6...8 mm	BCC06F7 BCC M434-0000-2A-000-51X475-000		BCC06Y5 BCC M434-0000-2A-000-55X450-000
5-wire	2.1...3 mm or 4...5 mm	BCC09JW BCC M435-0000-2A-000-A1X575-000		
	4...6 mm	BCC06YA BCC M435-0000-2A-000-41X575-000		
	5...8 mm			
	6...8 mm	BCC06EY BCC M435-0000-2A-000-51X575-000		
8-wire	4...6 mm	BCC01KR C04 CNT-9		
	6...8 mm (0.14...0.50 mm ²)	BCC0A04 BCC M438-0000-2A-000-51X850-000		
12-wire	6...8 mm (0.14...0.25 mm ²)			BCC0A06* (solder cup) BCC M43C-0000-2A-000-54XC25-000

*Consult factory for availability.

Standard Cable Information

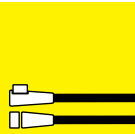
Jacket	Wires	Conductors	Diameter	Jacket	Wires	Conductors	Diameter
Yellow PVC	3	22 AWG	4.7 ± 0.15 mm	Black PUR	3	0.34 mm ²	4.3 ± 0.20 mm
Yellow PVC	4	22 AWG	5.0 ± 0.15 mm	Black PUR	4	0.34 mm ²	4.7 ± 0.20 mm
Grey PVC	3	0.34 mm ²	4.5 ± 0.15 mm	Yellow TPE	3	22 AWG	5.3 ± 0.13 mm
Grey PVC	4	0.34 mm ²	4.8 ± 0.15 mm	Yellow TPE	4	22 AWG	5.3 ± 0.13 mm
Yellow PUR	3	22 AWG	4.3 ± 0.20 mm				
Yellow PUR	4	22 AWG	4.7 ± 0.20 mm				

Connectivity Solutions

M12 field attachables



M12 Male	M12 Male	M12 Male	M12 Male
Right Angle	Straight	Straight	Right Angle
Plastic	Metal (shielded)	Stainless Steel	Stainless Steel
Screw Terminals	Screw Terminals	Screw Terminals	Screw Terminals
0.14...0.75 mm ² (26...18 AWG)	0.14...0.75 mm ² (26...18 AWG)	0.14...0.75 mm ² (26...18 AWG)	0.14...0.75 mm ² (26...18 AWG)
BCC06ZC			
BCC M444-0000-2A-000-41X475-000			
	BCC0869		
	BCC M474-0000-2A-000-01X475-000		
BCC06ZE			
BCC M444-0000-2A-000-51X475-000			
BCC06ZK		BCC097K	BCC097M
BCC M445-0000-2A-000-41X575-000		BCC S435-0000-2A-000-41X575-000	BCC S445-0000-2A-000-41X575-000
	BCC086A		
	BCC M475-0000-2A-000-01X575-000		
BCC06ZL		BCC097L	BCC097N
BCC M445-0000-2A-000-51X575-000		BCC S435-0000-2A-000-51X575-000	BCC S445-0000-2A-000-51X575-000



Connectivity Solutions

1/2" field attachables



1/2" Field Attachables

Type	1/2" Female	1/2" Male		
Configuration	Straight	Right Angle		
Housing	Plastic	Plastic		
Connection	Screw Terminals	Screw Terminals		
Cable Gland	PG7	PG7		
No. of Conductors	Order Code/Part Number			
Female	BCC01ZL	BCC08AU	BCC0206	BCC08AW
	C21 AN3-7	BCC A233-0000-10-000-41X3W8-000	C21 BN3-7	BCC A243-0000-10-000-41X3W8-000
Male	BCC080J	BCC08AY	BCC020E	BCC08AZ
	C21 CN3-7	BCC A233-0000-20-000-41X3W8-000	C21 DN3-7	BCC A243-0000-20-000-41X3W8-000

Connectivity Solutions

7/8" field attachables



7/8" Field Attachables

Type	7/8" Female	7/8" Male	
Configuration	Straight	Straight	
Housing	Plastic	Plastic	
Connection	Screw Terminals	Screw Terminals	
Conductor Maximum	0.14...1.50 mm ² (26...16 AWG)	0.14...1.50 mm ² (26...16 AWG)	
No. of Conductors	Allowable Cable Ø	Order Code/Part Number	
3-wire	8...10 mm	BCC0AT9 BCC A333-0000-10-000-61X3A5-000	BCC0ATC BCC A333-0000-20-000-61X3A5-000
	10...12 mm	BCC0ATA BCC A333-0000-10-000-71X3A5-000	BCC0ATE BCC A333-0000-20-000-71X3A5-000
4-wire	6...8 mm	BCC0706 BCC A334-0000-10-000-51X4A5-000	BCC0709 BCC A334-0000-20-000-51X4A5-000
	8...10 mm	BCC0707 BCC A334-0000-10-000-61X4A5-000	BCC070A BCC A334-0000-20-000-61X4A5-000
	10...12 mm	BCC0708 BCC A334-0000-10-000-71X4A5-000	BCC070C BCC A334-0000-20-000-71X4A5-000
5-wire	6...8 mm	BCC070E BCC A335-0000-10-000-51X5A5-000	BCC070J BCC A335-0000-20-000-51X5A5-000
	8...10 mm	BCC070F BCC A335-0000-10-000-61X5A5-000	BCC070K BCC A335-0000-20-000-61X5A5-000
	10...12 mm	BCC070H BCC A335-0000-10-000-71X5A5-000	BCC070L BCC A335-0000-20-000-71X5A5-000
	12...14 mm	BCC0ATH BCC A335-0000-10-000-81X5A5-000	BCC0ATF BCC A335-0000-20-000-81X5A5-000

Jacket Material	PVC	PVC	PVC	PVC
Number of Conductors	3	4	4	5
Conductor Color Code	US AC	US AC	DC	DC
Jacket Color	Yellow	Yellow	Yellow	Yellow
Conductor Gauge	16 AWG	16 AWG	16 AWG	16 AWG
Cordsets Used	7/8"	7/8"	7/8"	7/8"
Temperature Rating	-40...105°C	-40...105°C	-40...105°C	-40...105°C
Cable Diameter (mm)	10.24 ± 0.20 mm	10.67 ± 0.25 mm	10.67 ± 0.25 mm	12.57 ± 0.25 mm

Connectivity Solutions

M23 field attachables



M23 Field Attachables

Type	M23 Female	M23 Female	
Configuration	Straight	Right Angle	
Housing	Metal	Metal	
Connection	Solder Connections	Solder Connections	
Conductor Range	0.14...1.00 mm ² (26...18 AWG)	0.14...1.00 mm ² (26...18 AWG)	
No. of Conductors	Cable Min. Ø	Order Code/Part Number	
12-wire	6...9 mm	BCC08JH	BCC08JF
		BCC M67C-0000-10-000-54XCA0-000	BCC M68C-0000-10-000-54XCA0-000
19-wire	6...9 mm	BCC02HY	BCC02J0
		CM 23-AN-19-13	CM 23-BN-19-13

Connectivity Solutions

M23 field attachables

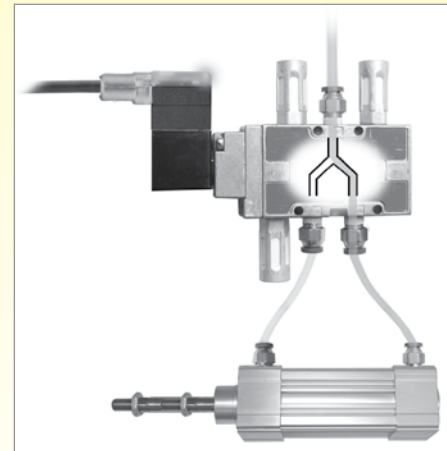
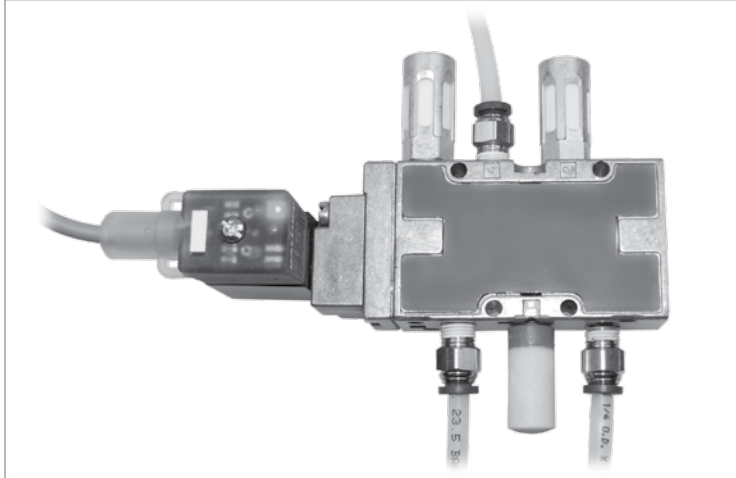


M23 Male (Internal Threads)	M23 Male (External Threads)
Straight	Straight
Metal	Metal
Solder Connections	Solder Connections
0.14...1.00 mm ² (26...18 AWG)	0.14...1.00 mm ² (26...18 AWG)
BCC02J3	BCC02J1
CM 23-EN-19-13	CM 23-CN-19-13

Connectivity Solutions

DIN A style actuator cables


From sensors to cordsets, Balluff offers an extensive line, which includes valve connectors. These valve connectors cover all standard DIN connections per EN175301, while also offering drag chain rated cables, rugged housings, and an option of protective circuits. Balluff can essentially complete any valve connector solution.



While DIN & Industry style connectors are used in many industrial automation applications, the most popular uses are with simple motors and solenoid valves. As with most solenoid valve applications a DIN or Industry style connector is required to switch the valve's position. Whether the application is clamping a part or moving an object, the Balluff valve connector can be used to pass the control signal to the valve. Integrated LEDs allow for easy recognition of solenoid position.



DIN A

Type	DIN A Female	DIN A Female - M12 Male	DIN A Female - M12 Male
Configuration	Right Angle	Right Angle - Straight	Right Angle - Right Angle
Straight Wired - Voltage Rating	230 VAC/VDC	230 VAC/VDC	230 VAC/VDC
Suppressor Diode - Voltage Rating	24 VAC/VDC	24 VAC/VDC	24 VAC/VDC
Current Rating	4.0 A	4.0 A	4.0 A
	DIN A 18 mm - Straight Wired	BCC VA04-0000-10-054- X_350-_-_-	BCC VA04-M413-3E-665- X_350-_-_-
	DIN A 18 mm - PNP & Suppressor Diode	BCC VA04-0000-10-053- X_350-_-_-	BCC VA04-M413-3E-664- X_350-_-_-

Standard Cable Jacket:

VX8 = PVC (grey, 8)

PX0 = PUR (black, 0)

Single-Ended Lengths:

020 = 2 m

050 = 5 m

100 = 10 m

Double-Ended Lengths:

003 = 030 m

006 = 0.6 m

010 = 1.0 m

015 = 1.5 m

020 = 2 m

030 = 3 m

050 = 5 m

Connectivity Solutions

DIN B and industry B style actuator cables
DIN C and industry C style actuator cables



DIN B and IND B

Type	B Style Female	B Style Female - M12 Male	B Style Female - M12 Male	
Configuration	Right Angle	Right Angle - Straight	Right Angle - Right Angle	
Straight Wired - Voltage Rating	230 VAC/VDC	230 VAC/VDC	230 VAC/VDC	
Suppressor Diode - Voltage Rating	24 VAC/VDC	24 VAC/VDC	24 VAC/VDC	
Current Rating	4.0 A	4.0 A	4.0 A	
0°	DIN B 10mm - Straight Wired	BCC VB03-0000-10-056- X_350-__	BCC VB03-M413-3E-667- X_350-__	BCC VB03-M423-3E-667- X_350-__
	DIN B 10mm - PNP & Suppressor Diode	BCC VB03-0000-10-055- X_350-__	BCC VB03-M413-3E-666- X_350-__	BCC VB03-M423-3E-666- X_350-__
180°	DIN B 10mm - Straight Wired	BCC VB23-0000-10-056- X_350-__	BCC VB23-M413-3E-667- X_350-__	BCC VB23-M423-3E-667- X_350-__
	DIN B 10mm - PNP & Suppressor Diode	BCC VB23-0000-10-055- X_350-__	BCC VB23-M413-3E-666- X_350-__	BCC VB23-M423-3E-666- X_350-__
0°	IND B 11mm - Straight Wired	BCC VB43-0000-10-056- X_350-__	BCC VB43-M413-3E-667- X_350-__	BCC VB43-M423-3E-667- X_350-__
	IND B 11mm - PNP & Suppressor Diode	BCC VB43-0000-10-055- X_350-__	BCC VB43-M413-3E-666- X_350-__	BCC VB43-M423-3E-666- X_350-__
180°	IND B 11mm - Straight Wired	BCC VB63-0000-10-056- X_350-__	BCC VB63-M413-3E-667- X_350-__	BCC VB63-M423-3E-667- X_350-__
	IND B 11mm - PNP & Suppressor Diode	BCC VB63-0000-10-055- X_350-__	BCC VB63-M413-3E-666- X_350-__	BCC VB63-M423-3E-666- X_350-__

For face views and wiring diagrams, visit the technical reference section t.



DIN C and IND C

Type	C-Style Female	C-Style Female - M12 Male	C-Style Female - M12 Male	
Configuration	Right Angle	Right Angle - Straight	Right Angle - Right Angle	
Straight Wired - Voltage Rating	230 VAC/VDC	230 VAC/VDC	230 VAC/VDC	
Suppressor Diode - Voltage Rating	24 VAC/VDC	24 VAC/VDC	24 VAC/VDC	
Current Rating	4.0 A	4.0 A	4.0 A	
0°	DIN C 8 mm - Straight Wired	BCC VC04-0000-10-054- X_350-__	BCC VC04-M413-3E-665- X_350-__	BCC VC04-M423-3E-665- X_350-__
	DIN C 8 mm - PNP & Suppressor Diode	BCC VC04-0000-10-053- X_350-__	BCC VC04-M413-3E-664- X_350-__	BCC VC04-M423-3E-664- X_350-__
0°	IND C 9.4 mm - Straight Wired	BCC VC44-0000-10-054- X_350-__	BCC VC44-M413-3E-665- X_350-__	BCC VC44-M423-3E-665- X_350-__
	IND C 9.4 mm - PNP & Suppressor Diode	BCC VC44-0000-10-053- X_350-__	BCC VC44-M413-3E-664- X_350-__	BCC VC44-M423-3E-664- X_350-__

Connectivity Solutions

Accessories

Caps, labels, and adapters



Size	M8x1	M12x1	M12x1	M12x1
Threads	External	External	External	External
Material	Plastic	Plastic	Plastic	CuZn
Use	M8 Female Port	M12 Female Port	M12 Female Port	M12 Female Port
Order Code	BAM01C1	BAM01C2	BAM0115	BAM0114
Part Number	BAM CS-XA-001-M8-C	BAM CS-XA-002-M12-A	BKS-12-CS-02	BKS-12-CS-01



Size	M12x1	7/8"-16UN	7/8"-16UN	M23
Threads	Internal	External	Internal	Internal
Material	Anodized Al	CuZn	CuZn	CuZn
Use	M12 Male Port	7/8" Female Port	7/8" Male Port	M23 Male Port
Order Code	BAM01LT	BAM012T	BAM012U	BAM012P
Part Number	BAM CS-XA-006-M12-1	BKS-7/8-CS-00-A	BKS-7/8-CS-00-I	BKS-23-CS-00



Type	Internal thread adapters	
Use With	Internal Male - Internal Female	
Compatibility	BCC A3..., BCCA4..., BCC A5...	
7/8"	Order Code	BAM01LP
	Part Number	BAM AD-XA-009-7U8-1
1"	Order Code	BAM01LM
	Part Number	BAM AD-XA-009-1U0-1
1 1/8"	Order Code	BAM01LN
	Part Number	BAM AD-XA-009-9U8-1



Type	Block Labels
Size	17x9
Use With	M12 Plastic Hubs
Compatibility	BPI...M4...
Order Code	BAM01JU
Part Number	BAM IA-XA-004-4X6-Y

Connectivity Solutions

Accessories

M23 assembly wrench and IP67 torque wrench

IP67 Torque Wrenches

By using a calibrated IP67 torque wrench on the hex nut with every cordset, you can ensure the IP67 rating at the sensor or at the MIB, which will protect your sensor signals even in the wettest environments.



Description	Order Code	Part Number
M8, 0.4 Nm torque rating	BAM00ZL	BAM TO-CC-001-M3-0,4/8,0
M12, 0.6 Nm torque rating	BAM00ZM	BAM TO-CC-001-M4-0,6/12,0
7/8", 1.5 Nm torque rating	BAM00ZN	BAM TO-CC-001-A3-1,5/24,0

M23 Assembly wrench

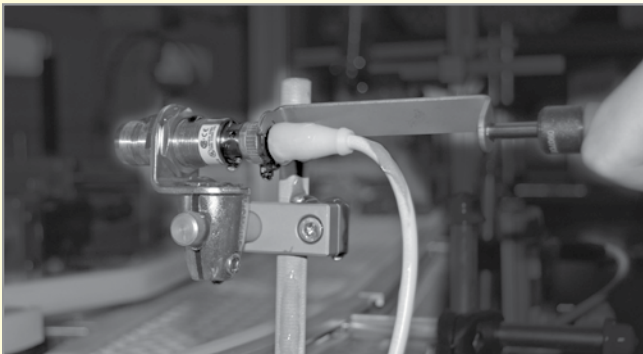
M23 connectors are easy to assemble due to their size. After the components are assembled, the top and bottom section must be secured to one another to guarantee the high degree of protection.



Description	Ordering code
Assembly wrench for 12 and 19-pin M23 connectors	Part number FHW003F RC-Z2099



Possible Wet/Oily Environment



In this scenario there is a connection between cordsets, with the final connection to a sensor. This scenario is characteristic of homerun cables, patch cables, and adapter cables. The connection between cordsets can sometimes lie in an unexpected, oily or wet environment at the bottom of a work cell. By using a combination of a new Balluff cordset with hexagonal coupling nut and a properly calibrated torque wrench, the sensor connection is IP67 guaranteed. By ratcheting when the connection is properly sealed, it does not allow over-torque, which can be just as bad as too little torque.

Connectivity Solutions

Control accessories for analog inputs

Balluff signal adapters are crucial for quick, versatile modifications, retrofits and enhancements of a sensor's functionality. Several available models provide quick change options that will convert PNP/NPN outputs, add delay timing and counting functions, or monitor frequency of machine speeds and motion. Applications with very high switching frequency can be slowed down using signal stretching devices or analog inputs can be converted to discrete setpoints without the use of a controller or logic. Sensor controller relay boxes are great for simple applications where a controller is overkill. All of these solutions are suitable as stand-alone solutions in areas lacking external controllers. They are also ideal for applications where a solution must be retrofit without changing the controller.



IP67 Inline - Analog Signal Discrete Setpoint Controller

Rated Operational Voltage	24 VDC	
Rated Operational Current	300mA	
Number of Discrete Outputs	3	
Number of Analog Outputs	1	
Hysteresis	500mV	
Remote Teach	Yes	
Input Type	Wiring	Order Code
0...10VDC	PNP, N/O	BAE0070
	NPN, N/O	BAE006Z



Analog Signal Digital Panel Display

Input Signal	0...10 VDC, 4...20 mA	
Supply Voltage	24 VDC	
Resolution	16-bit A/D	
Analog Output	16-bit, 100% adjustable	
Display	6-digit (5-digit analog out)	
Discrete Outputs	Scalable Analog Outputs	Order Code
---	---	BAE004R
4x PNP	---	BAE004T
2x PNP	2x	BAE004U
Clear IP65 NEMA 4X Cover	BAM0130	





IP67 Inline - Signal Conditioning

Rated Operational Voltage	10...30 VDC
Maximum Load Current	400 mA
Timer Maximum Delay	65.535 s
Counter Maximum Count	65535
Frequency Minimum Frequency	0.15 Hz
Frequency Maximum Frequency	1000 Hz
Remote Teach	Yes

Type	Wiring	Order Code
Timer	PNP	BAE002M
	NPN	BAE002N
Counter	PNP	BAE002E
	NPN	BAE002F
Signal Inverter	PNP to NPN	BAE002H
	NPN to PNP	BAE002J
Frequency (under speed)	PNP	BAE002K
	NPN	BAE002L



IP20 DIN-rail mount - Signal Stretching Device

Rated Operational Voltage	10...30 VDC
Rated Operational Current	130 mA
Pulse Length Adjustable	2ms...1s
Minimum Input Pulse	1.5ms

Wiring	Order Code
PNP/NPN, Complementary	BAE0073



IP20 DIN-rail mount - Sensor Relay Controller

Supply Input Voltage	115 VAC, 60Hz
Sensor Output Voltage	24 VDC
Sensor Output Current Max	100mA DC
Number of Sensor Inputs & Relays	2
Relay Ratings	6A at 120 VAC or 24 VDC
Relay Life	100,000 Operations

Wiring	Order Code
PNP/NPN	BAE0023
PNP	BAE0027

