

 USA Cable Solutions

Lutze Flexible Cable and Wire Management for Industrial Automation

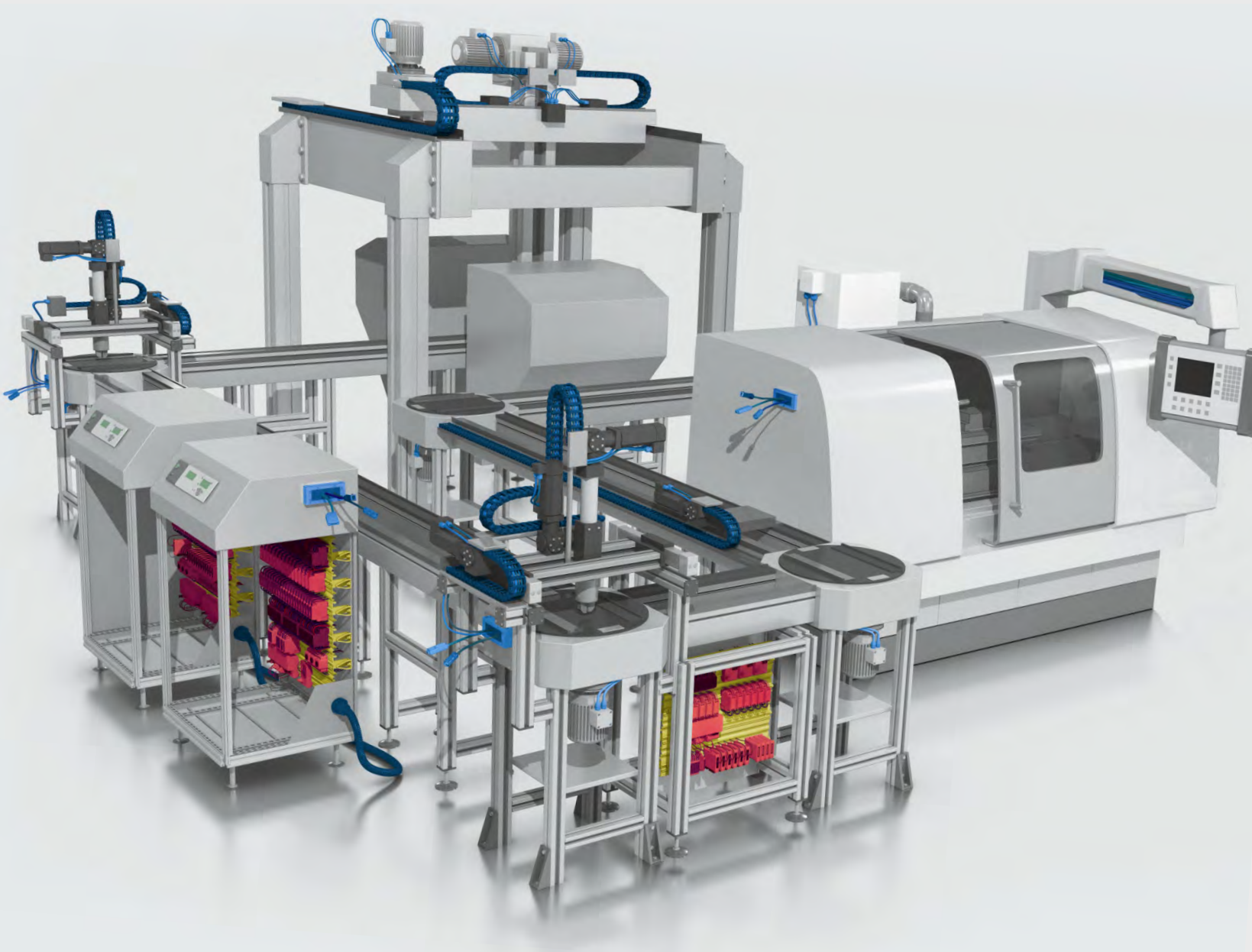


Control Cable
Flexible Tray-ER Cable
High Flexing Cable
Motor & VFD Cable
Ethernet Cable
Cable Fittings and Accessories
NPT, PG, Metric Fittings
Connectivity

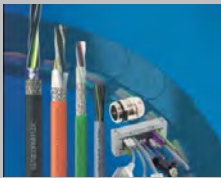


- **UL/CSA/CE and Tray-ER approvals**
- **NFPA 79 compliant cables available**
- **Accepted by the Automotive Industry**
- **Suitable for the North American market**
- **Standard size reels available**
- **We cut cable to any length compliant with “UL processed wire respooled” procedure**
- **No minimum length required for standard items**
- **Low minimum order**
- **Our goal is “On time-All the time”**

From products to solutions!



 **Cable Solutions**



 **Automation Solutions**



 **Cabinet Solutions**



Flexible Cables

Lutze Silflex® for Flexible and Stationary Applications and
DRIVEFLEX® VFD cable

Flexible Tray and Control Cable

PVC Unshielded , Control TC-ER A308.....	6-7
PVC Shielded , Control TC-ER A309.....	8
PVC Unshielded , TC-ER with Blue Conductors A325.....	9
PVC Unshielded , TC-ER A322.....	10
PVC Shielded , TC-ER A321.....	11
PUR Unshielded , Control A124.....	12
PVC Unshielded , Control 108xxxA.....	13

VFD and Motor Cable

PVC Shielded , DRIVEFLEX® XLPE VFD Cable, TC-ER A216.....	14
PVC Shielded , DRIVEFLEX® XLPE VFD Servo I Motor Cable, TC-ER A217.....	15
PVC Shielded , DRIVEFLEX® XLPE VFD Servo II Motor Cable, TC-ER A218.....	16
PVC Shielded , DRIVEFLEX® XLPE VFD 3 Symmetrical Grounds, TC-ER A219.....	17
PVC Shielded , 0.6 kV Motor Cable, TC-ER A116 & Composite Motor Cable, TC-ER A117..	18

Electronic Cable

PVC Unshielded , Electronic PLTC A303.....	19
PVC Shielded , Electronic PLTC A313.....	20
PVC Shielded , Electronic TP PLTC A314.....	21

Hook Up Wire

PVC Single Conductor, Multi-Norm	22-23
---	-------

Bus and Network Cable

Network and Ethernet Cable PVC Shielded	24
Bus Cable Shielded	25



High Flexing Cables

Lutze Superflex®, Superflex® Plus for
Linear Continuous Moving/Flexing Applications, C-track

Control Cable	
PVC Unshielded, Control A138	28
PVC Shielded, Control A139	29
PUR Unshielded, Control	30
PUR Shielded, Control	31
Motor Cable	
PUR Unshielded, 0.6/1kV Motor Cable	32
PUR Shielded, 0.6/1kV Motor Cable	33
PUR Shielded, 0.6/1kV Composite Motor Cable, Control Pairs	34
PUR Shielded, Kombi (Feedback) Cable	35
PUR Unshielded, 0.6/1kV Single Conductor Motor Cable	36
PUR Shielded, 0.6/1kV Single Conductor Motor Cable	37
Electronic Cable	
PUR Unshielded, Electronic Cable	38
PUR Shielded, Electronic Cable	39
PUR Shielded, Electronic Cable, TP	40
Bus and Network Cable	
PUR Shielded, Bus Cable	41
PUR Shielded, Network and Ethernet Cable	42



Wire and Cable Management

■	Plastic Cable Fittings	
	NPT Fittings FPNPT	44
	PG Fittings FPPG	45
	Metric Fittings FPM	46
	Locknuts NPT, PG and Metric LPNPT, LPPG, LPM	47
	Metric and PG Reducer and PG Enlarger	48
■	Metal Cable Fittings	
	NPT Fittings FMNPT	49
	PG Fittings FMPG	50
	Metric Fittings FMM	51
	Metric Fittings EMC FMM	52
	Metric Fittings EMC2, Quick Installation FMM, FMNPT	53
	Locknuts PG, Metric and EMC Metric LMPG, LMM	54
	PG and Metric Reducer	55
	Metric to NPT Adapters AMM	56
■	Specialty Fittings & Accessories	
	Multihole Insert TPE PG, Metric, NPT	57
	EMC rails with shield and strain relief	58-59
	Cablefix Vario	60-61
	Cablefix	62
■	Network Connectivity Products	
	Industrial Network Connectors RJ 45	64
	Industrial USB 3.0 SuperSpeed Connector	65
■	Technical Overview	66-90

Flexible Cables

Lutze Silflex® for Flexible and Stationary Applications and
DRIVEFLEX® VFD Cable



Lutze Silflex® Control-ER PVC, Unshielded

Flexible Control and Tray Cable with UL/TC-ER/WTTC/ITC-ER/PLTC-ER/MTW/CSA/CE Approvals



Application

- Multi-conductor cable for tray and control applications, with **exposed run** (open wiring) approval
- Machine tools, machine and plant construction, HVAC technology, assembly and production lines, and other industrial applications
- Compliant with **NFPA 79** requirements
- TC-ER for use on machines and in cable trays without conduit, which can reduce material and labor costs (AWG 18 and larger)
- WTTC – wind turbine tray cable rating for use in wind power generation (AWG 18 and larger)
- PLTC-ER – power limited tray cable exposed run
- ITC-ER – instrumentation tray cable
- Dry, damp or wet locations

Characteristics

- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Specially formulated jacket for oil resistance
- Gray jacket for control cable applications according to *DES/INA*
- Non-wicking fillers
- Sunlight resistant
- Direct burial (AWG 18 and larger)
- Talc free
- Silicone free

Technical Data

Voltage	AWG 20 600V UL MTW 300V PLTC AWG 18 and larger 600V UL TC/MTW 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground *no ground included
Approvals	UL/AWM/CSA/CE AWM Style 20886 (UL) Type MTW or DP-1 Class 1 Div. 2 per NEC Art. 336, 392, 501 C(UL) TC and CIC FT4 UL 1277 Oil Res II RoHS
AWG specific approvals	AWG 20 PLTC-ER and ITC-ER AWG 18 to AWG 12 TC-ER and WTTC PLTC-ER and ITC-ER AWG 10 and larger TC-ER and WTTC

Construction

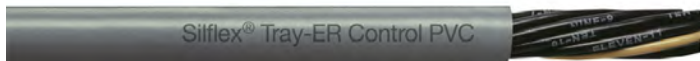
- Flexible fine wire stranded bare copper conductors
- PVC/Nylon insulation
- Oil resistant gray PVC jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 20 (10/30)					
A3082003	3	6.8	0.268	41	9
A3082004	4	7.3	0.287	49	13
A3082005	5	7.9	0.313	57	16
A3082007	7	8.5	0.335	70	22
A3082012	12	10.8	0.426	110	38
A3082018	18	12.5	0.492	152	56
A3082025	25	17.1	0.672	229	79
AWG 18 (19/30)					
A3081802	2*	7.0	0.276	46	12
A3081803	3	7.5	0.296	54	18
A3081804	4	8.1	0.320	65	24
A3081805	5	8.8	0.346	82	30
A3081807	7	9.5	0.373	102	42
A3081809	9	10.8	0.425	128	54
A3081812	12	12.1	0.477	157	72
A3081818	18	14.9	0.587	240	108
A3081825	25	17.2	0.677	314	151
A3081834	34	18.9	0.744	404	205
A3081841	41	22.8	0.896	520	248
A3081850	50	23.1	0.910	630	302
AWG 16 (26/30)					
A3081602	2*	7.7	0.305	53	16
A3081603	3	8.1	0.21	66	24
A3081604	4	8.7	0.347	77	32
A3081605	5	9.5	0.377	98	40
A3081607	7	10.2	0.406	122	57
A3081609	9	12.0	0.473	159	73
A3081612	12	13.4	0.527	196	98
A3081618	18	16.4	0.647	294	147
A3081625	25	19.0	0.748	391	204
A3081634	34	22.3	0.876	541	278
A3081641	41	25.0	0.983	670	335
AWG 14 (41/30)					
A3081403	3	8.8	0.348	87	38
A3081404	4	9.6	0.378	108	51
A3081405	5	10.4	0.410	125	64
A3081407	7	11.3	0.445	164	89
A3081409	9	13.1	0.516	213	115
A3081412	12	15.5	0.610	283	154
A3081418	18	18.2	0.715	404	231
A3081425	25	20.9	0.825	537	321

Specifications are subject to change without prior notice

Lutze Silflex® Control-ER PVC, Unshielded

Flexible Control and Tray Cable with UL/TC-ER/WTTC/ITC-ER/PLTC-ER/MTW/CSA/CE Approvals



Application

- Multi-conductor cable for tray and control applications, with **exposed run** (open wiring) approval
- Machine tools, machine and plant construction, HVAC technology, assembly and production lines, and other industrial applications
- Compliant with **NFPA 79** requirements
- TC-ER for use on machines and in cable trays without conduit, which can reduce material and labor costs (AWG 18 and larger)
- WTTC – wind turbine tray cable rating for use in wind power generation (AWG 18 and larger)
- PLTC-ER – power limited tray cable exposed run
- ITC-ER – instrumentation tray cable
- Dry, damp or wet locations

Characteristics

- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Specially formulated jacket for oil resistance
- Gray jacket for control cable applications according to *DESINA*
- Non-wicking fillers
- Sunlight resistant
- Direct burial (AWG 18 and larger)
- Talc free
- Silicone free

Technical Data

Voltage	AWG 20 600V UL MTW 300V PLTC AWG 18 and larger 600V UL TC/MTW 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground *no ground included
Approvals	UL/AWM/CSA/CE AWM Style 20886 (UL) Type MTW or DP-1 Class 1 Div. 2 per NEC Art. 336, 392, 501 C(UL) TC and CIC FT4 UL 1277 Oil Res II RoHS
AWG specific approvals	AWG 20 PLTC-ER and ITC-ER AWG 18 to AWG 12 TC-ER and WTTC PLTC-ER and ITC-ER AWG 10 and larger TC-ER and WTTC

Construction

- Flexible fine wire stranded bare copper conductors
- PVC/Nylon insulation
- Oil resistant gray PVC jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 12 (65/30)					
A3081203	3	9.8	0.382	122	63
A3081204	4	11.1	0.437	150	84
A3081205	5	12.1	0.475	183	105
A3081207	7	14.1	0.556	255	147
AWG 10 (105/30)					
A3081003	3	12.6	0.495	182	97
A3081004	4	14.6	0.573	239	130
A3081005	5	15.8	0.623	288	162
AWG 8 (168/30)					
A3080803	3	17.1	0.672	319	161
A3080804	4	18.9	0.744	398	214
A3080805	5	22.4	0.874	477	268
AWG 6 (266/30)					
A3080603	3	18.9	0.744	427	254
A3080604	4	21.7	0.853	535	339
A3080605	5	24.1	0.949	735	425
AWG 4 (413/30)					
A3080404	4	27.9	1.098	927	514
AWG 2 (665/30)					
A3080204	4	32.2	1.727	1352	874

Specifications are subject to change without prior notice

Lutze Silflex® (C) Control-ER PVC, Shielded

Flexible Shielded Control and Tray Cable with UL/TC-ER/WTTC/ITC-ER/PLTC-ER/MTW/ CSA/CE Approvals



Application

- Multi-conductor cable for tray and control applications, with **exposed run** (open wiring) approval
- Machine tools, machine and plant construction, HVAC technology, assembly and production lines, and other industrial applications
- Compliant with **NFPA 79** requirements
- TC-ER for use on machines and in cable trays without conduit, which can reduce material and labor costs (AWG 18 and larger)
- WTTC – wind turbine tray cable rating for use in wind power generation (AWG 18 and larger)
- PLTC-ER – power limited tray cable exposed run
- ITC-ER – instrumentation tray cable
- Dry, damp or wet locations

Characteristics

- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Specially formulated jacket for oil resistance
- Gray jacket for control cable applications according to *DESINA*
- Non-wicking fillers
- Sunlight resistant
- Direct burial (AWG 18 and larger)
- Talc free
- Silicone free

Technical Data

Voltage	AWG 20 600V UL MTW 300V PLTC AWG 18 and larger 600V UL TC/MTW 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground *no ground included
Approvals	UL/AWM/CSA/CE AWM Style 20886 (UL) Type MTW or DP-1 Class 1 Div. 2 per NEC Art. 336, 392, 501 C(UL) TC and CIC FT4 UL 1277 Oil Res II RoHS
AWG specific approvals	AWG 20 PLTC-ER and ITC-ER AWG 18 to AWG 12 TC-ER and WTTC PLTC-ER and ITC-ER AWG 10 and larger TC-ER and WTTC

Construction

- Flexible fine wire stranded bare copper conductors
- PVC/Nylon insulation
- Shielded with foil tape, tinned copper braid and drain wire
- Oil resistant gray PVC jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 20 (10/30)					
A3092003	3	7.5	0.295	57	22
A3092004	4	8.0	0.316	65	25
A3092005	5	8.6	0.337	74	28
A3092007	7	9.1	0.360	93	37
A3092012	12	11.4	0.450	131	56
A3092018	18	13.9	0.549	197	78
A3092025	25	15.8	0.621	246	104

AWG 18 (19/30)					
A3091802	2*	7.7	0.306	59	24
A3091803	3	7.9	0.310	68	30
A3091804	4	8.7	0.343	84	38
A3091805	5	9.1	0.357	94	44
A3091807	7	10.0	0.395	119	58
A3091812	12	12.8	0.505	187	91
A3091818	18	15.5	0.610	266	131
A3091825	25	18.0	0.710	360	177

AWG 16 (26/30)					
A3091602	2*	8.3	0.328	68	30
A3091603	3	8.8	0.345	87	39
A3091604	4	9.4	0.370	99	49
A3091605	5	10.2	0.400	116	57
A3091607	7	10.8	0.425	144	75
A3091612	12	14.0	0.550	227	121
A3091618	18	16.9	0.665	326	174
A3091625	25	19.6	0.770	441	233

AWG 14 (41/30)					
A3091403	3	9.4	0.370	109	57
A3091404	4	10.3	0.406	128	74
A3091405	5	11.1	0.435	155	85
A3091407	7	12.2	0.480	198	113
A3091412	12	16.1	0.635	315	182

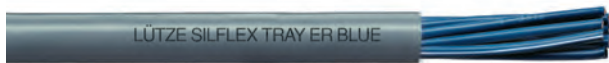
AWG 12 (65/30)					
A3091203	3	10.8	0.425	150	88
A3091204	4	11.6	0.457	173	112
A3091205	5	12.7	0.500	215	133

AWG 10 (105/30)					
A3091004	4	15.1	0.594	284	171

Specifications are subject to change without prior notice

Lutze Silflex® Tray-ER Blue PVC, Unshielded

Flexible Control and Tray Cable
with UL/TC-ER/CSA/CE Approvals, Blue Conductors for 24V Applications



Application

- Multi-conductor cable for tray applications, with **exposed run** (open wiring) approval
- Machine tools, machine and plant construction, HVAC technology, assembly and production lines, and other industrial applications
- **Automotive** applications with 24 Volt
- MTW rating as required per **NFPA 79** for machine tool wiring
- TC-ER for use on machines and in cable trays without conduit
- Dry, damp and wet conditions

Characteristics

- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Specially formulated jacket for oil resistance
- Non-wicking fillers
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free
- Silicone free

Technical Data

Voltage	600V UL TC 1000V UL AWM
Temperature	-40°C - +90°C static
Bending radius	4 x cable OD
Conductor marking	Blue with white numbers; and one green/yellow ground; No. 2 is white with a blue stripe *** only two blue with white numbers and one green/yellow ground, no white with a blue stripe
Approvals	UL Type TC-ER UL/CSA/CE UL AWM (UL) Type MTW or DP-1 Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC CIC FT4 UL1277 Oil res I, UL 83 RoHS

Construction

- Flexible fine wire stranded bare copper conductors
- PVC/Nylon insulation
- Oil resistant gray PVC jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 18 (19/30)					
A3251803	3***	7.5	0.295	57	18
A3251807	7	9.4	0.370	100	42
A3251812	12	12.1	0.476	171	72
A3251819	19	14.8	0.583	254	114
A3251825	25	17.2	0.677	322	150
A3251837	37	20.1	0.791	417	223
AWG 16 (26/30)					
A3251603	3***	8.2	0.323	65	24
A3251607	7	10.4	0.409	125	57
A3251612	12	14.1	0.555	220	98
A3251619	19	16.3	0.642	285	155
A3251625	25	18.7	0.736	397	204
AWG 14 (41/30)					
A3251404	4	9.6	0.378	102	51
AWG 12 (65/30)					
A3251204	4	11.1	0.437	143	83

Specifications are subject to change without prior notice

Lutze Silflex® Tray-ER PVC, Unshielded

Flexible Tray Cable with UL/TC-ER/WTTC/MTW/CSA/CE Approvals



Application

- Multi-conductor cable for tray applications, with **exposed run** (open wiring) approval
- Compliant with **NFPA 79** for machine tool wiring
- **TC-ER** for use with cable trays **without conduit**, which can reduce material and labor costs
- Machine tools, machine and plant construction, HVAC technology, assembly and production lines, and other industrial applications
- WTTC – wind turbine tray cable rating for use in wind power generation
- Dry, damp and wet locations

Characteristics

- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Specially formulated jacket for oil resistance
- Non-wicking fillers
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free
- Silicone free

Technical Data

Voltage	600V UL TC 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground *no ground included
Approvals	UL Type TC-ER UL/CSA/CE UL AWM (UL) Type MTW or DP-1 WTTC Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC CIC FT4 UL1277 Oil Res II RoHS

Construction

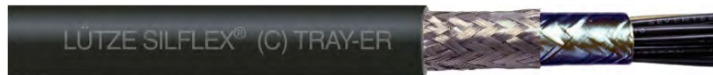
- Flexible fine wire stranded bare copper conductors
- PVC/Nylon insulation / THHN – THWN
- Oil resistant black PVC jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 18 (19/30)					
A3221803	3	7.5	0.296	54	18
A3221804	4	8.1	0.320	65	24
A3221805	5	8.8	0.346	82	30
A3221807	7	9.5	0.373	102	42
A3221812	12	12.1	0.477	157	72
A3221818	18	14.9	0.587	240	108
A3221825	25	17.2	0.677	314	151
AWG 16 (26/30)					
A3221602	2*	7.9	0.311	53	16
A3221603	3	8.1	0.321	66	24
A3221604	4	8.7	0.347	77	32
A3221605	5	9.5	0.377	98	40
A3221607	7	12.2	0.406	122	57
A3221612	12	13.4	0.527	196	98
A3221618	18	16.4	0.647	294	147
A3221625	25	19.0	0.748	391	204
AWG 14 (41/30)					
A3221403	3	8.8	0.348	87	38
A3221404	4	9.6	0.378	108	51
A3221405	5	10.4	0.410	125	64
A3221407	7	11.3	0.445	164	89
A3221412	12	15.5	0.610	283	154
AWG 12 (65/30)					
A3221203	3	9.8	0.382	122	63
A3221204	4	11.1	0.437	150	84
A3221205	5	12.1	0.475	183	105
A3221207	7	14.1	0.556	255	147
AWG 10 (105/30)					
A3221003	3	12.6	0.495	182	97
A3221004	4	14.6	0.573	239	130
A3221005	5	15.8	0.623	288	162
AWG 8 (168/30)					
A3220804	4	18.9	0.744	398	214
A3220805	5	22.4	0.874	477	268
AWG 6 (266/30)					
A3220604	4	21.7	0.853	535	339
AWG 4 (413/30)					
A3220404	4	27.9	1.098	927	514
AWG 2 (665/30)					
A3220204	4	32.3	1.272	1352	874

Specifications are subject to change without prior notice

Lutze Silflex® (C) Tray-ER PVC, Shielded

Flexible Shielded Tray Cable with UL/TC-ER/WTTC/MTW/CSA/CE Approvals



Application

- Shielded multi-conductor cable for tray applications, with exposed run (open wiring) approval
- Compliant with NFPA 79 for machine tool wiring
- TC-ER for use with cable trays without conduit, which can reduce material and labor costs
- Machine tools, machine and plant construction, HVAC technology, assembly and production lines, and other industrial applications
- WTTC – wind turbine tray cable rating for use in wind power generation
- Dry, damp and wet locations

Characteristics

- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Specially formulated jacket for oil resistance
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free
- Silicone free

Technical Data

Voltage	600V UL TC 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Approvals	UL Type TC-ER UL/CSA/CE UL AWM (UL) Type MTW or DP-1 WTTC Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC CIC FT4 UL1277 Oil Res II RoHS

Construction

- Flexible fine wire stranded bare copper conductors
- PVC/Nylon insulation
- Shielded with foil tape, tinned copper braid and drain wire
- Oil resistant black PVC jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 18 (19/30)					
A3211803	3	7.9	0.310	68	30
A3211804	4	8.7	0.343	84	38
A3211805	5	9.1	0.357	94	44
A3211807	7	10.0	0.395	119	58
A3211812	12	12.8	0.505	187	91
A3211818	18	15.5	0.610	266	131
A3211825	25	18.0	0.710	360	177
AWG 16 (26/30)					
A3211603	3	8.8	0.345	87	39
A3211604	4	9.4	0.370	99	49
A3211605	5	10.2	0.400	116	57
A3211607	7	10.8	0.425	144	75
A3211612	12	14.0	0.550	227	121
A3211618	18	16.9	0.665	326	174
A3211625	25	19.6	0.770	441	233
AWG 14 (41/30)					
A3211403	3	9.4	0.370	109	57
A3211404	4	10.3	0.406	128	74
A3211405	5	11.1	0.435	155	85
A3211407	7	12.2	0.480	198	113
A3211412	12	16.1	0.635	315	182
AWG 12 (65/30)					
A3211203	3	10.8	0.425	150	88
A3211205	5	12.7	0.500	215	133
AWG 10 (105/30)					
A3211005	5	15.8	0.622	330	203

Also see **Driveflex® A216** cable series with **four (4)** conductor configuration, PVC Shielded, 0.6/1kV VFD Motor cable, TC-ER rated.

Specifications are subject to change without prior notice

Lutze Silflex® N PUR, Unshielded

Flexible Control Cable with UL/CSA/CE Approvals



Application

- Multi-conductor cable for machine tools, handling equipment, machine and plant construction, transport and conveying technology

Characteristics

- Flexible for easy installation
- PUR jacket for highest oil and abrasion resistance
- Non-wicking fillers
- Talc free
- Silicone free

Technical Data

Voltage	600V UL AWM
Temperature	-40°C - +80°C
Bending radius	4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Approvals	UL/CSA/CE Oil Res II RoHS

Construction

- Flexible fine wire stranded bare copper conductors
- PVC insulation
- Extremely oil resistant gray PUR jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 18 (19/30)					
A1241803	3	6.5	0.254	39	15
A1241804	4	7.4	0.289	50	20
A1241805	5	7.5	0.296	60	25
A1241807	7	8.6	0.339	79	35
A1241812	12	11.2	0.440	135	60
A1241818	18	13.1	0.515	191	90
A1241825	25	15.4	0.605	254	125
AWG 16 (26/30)					
A1241603	3	7.2	0.282	52	24
A1241604	4	7.8	0.305	67	32
A1241605	5	8.4	0.331	82	40
A1241607	7	9.6	0.378	109	57
A1241612	12	11.5	0.443	190	97
A1241618	18	14.7	0.580	265	147
A1241625	25	17.4	0.684	356	204
AWG 14 (41/30)					
A1241404	4	9.7	0.380	102	51
A1241407	7	11.5	0.452	190	89
A1241412	12	16.2	0.636	295	153
AWG 12 (65/30)					
A1241204	4	12.2	0.480	162	83

Specifications are subject to change without prior notice

Lutze Silflex® N PVC, Unshielded

Flexible Control Cable with UL/CSA/CE Approvals



Application

- Multi-conductor control cable for machine and plant construction, HVAC technology, assembly and production lines, and many other industrial applications
- Easy strip design specially suited for cable assemblies

Characteristics

- Most flexible design without Nylon for easy stripping and easy installation
- Easy routing and bending due to flexibility
- Specially formulated gray PVC jacket for oil resistance
- Resistant to mineral oils, coolants and solvents
- Non-wicking fillers

Technical Data

Voltage	600V UL AWM
Temperature	-40°C - +90°C static
Bending radius	4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground; *no ground included
Approvals	UL AWM Style 2587 UL-VW-1 CSA AWM, I/II A/B FT4 CE Oil Res II RoHS

Construction

- Flexible fine wire stranded bare copper conductors
- PVC insulation
- Oil resistant gray PVC jacket
- Other jacket colors available

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 20 (10/30)					
108349A	2*	5.7	0.226	27	6.5
108350A	3	6.0	0.235	31	10
108351A	4	6.5	0.255	38	12
108352A	5	7.2	0.282	46	16
108353A	7	8.8	0.345	65	22
108354A	12	10.8	0.424	103	38
108355A	18	12.8	0.505	153	56
108356A	25	15.0	0.592	206	88
AWG 18 (16/30)					
108401A	2*	6.5	0.254	34	10
108357A	3	6.7	0.263	41	15
108358A	4	7.2	0.285	51	20
108359A	5	7.7	0.305	63	25
108360A	7	9.1	0.360	82	35
108392A	9	11.7	0.460	119	45
108361A	12	12.0	0.473	142	60
108362A	18	13.8	0.543	198	90
108363A	25	16.0	0.630	263	125
AWG 16 (26/30)					
108391A	2*	6.9	0.270	41	16
108372A	3	7.4	0.290	55	24
108373A	4	8.0	0.316	69	32
108374A	5	8.7	0.341	84	40
108375A	7	10.3	0.406	112	57
108393A	9	13.0	0.511	159	73
108376A	12	13.8	0.543	198	97
108377A	18	15.5	0.610	274	147
108378A	25	18.0	0.708	366	204
AWG 14 (41/30)					
108380A	3	8.9	0.352	82	38
108381A	4	9.8	0.384	103	51
108382A	5	10.9	0.430	130	63
108383A	7	13.4	0.529	183	89
108384A	12	16.9	0.666	307	153
108385A	18	19.7	0.774	433	230
108386A	25	23.7	0.935	598	320

Specifications are subject to change without prior notice

Lutze DRIVEFLEX® XLPE (C) PVC, Shielded

Flexible VFD & Motor Supply Cable with UL/TC-ER/WTTC/CSA/CE Approvals



Application

- Shielded multi-conductor cable for VFD and Motor applications to connect power from drives to motors
- Cable design for harsh industrial environments and operating conditions with high noise levels
- XLPE thick wall insulation with low capacitance, ideal for applications with **high voltage spikes and long cable runs**
- Compliant with **NFPA 79** for wiring of industrial machinery
- **TC-ER** for use with cable trays **without conduit**, which can reduce material and labor costs
- WTTC – wind turbine tray cable rating for use in wind power generation
- Dry, damp or wet conditions



Characteristics

- Flexible XLPE conductor design
- Non-wicking fillers
- Effective dual layer shield for EMC compliance
- Specially formulated jacket for oil resistance and easy strip design
- Low capacitance cable
- Round cable – seals well with circular connectors
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free and silicone free

Technical Data

Voltage	600V UL TC 1000V Flexible VFD Servo cable 90C 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Approvals	UL Type TC-ER UL/AWM/CSA/CE UL DP-1 Flexible VFD Servo cable WTTC Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC CIC FT4 UL 1277 Oil res II Wet/Dry MSHA RoHS

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 16 (26/30)					
A2161604	4	12.4	0.490	149	57
AWG 14 (41/30)					
A2161404	4	14.2	0.560	200	80
AWG 12 (65/30)					
A2161204	4	15.6	0.615	262	128
AWG 10 (105/30)					
A2161004	4	17.8	0.700	359	186
AWG 8 (168/30)					
A2160804	4	23.5	0.925	603	295
AWG 6 (266/30)					
A2160604	4	25.7	1.010	763	425
AWG 4 (413/30)					
A2160404	4	29.3	1.155	1,126	632
AWG 2 (665/30)					
A2160204	4	33.7	1.325	1,559	997

Construction

- Flexible fine wire stranded tinned copper conductors for improved electrical characteristics and reduced oxidation
- XLPE insulation RHW-2, Wet/Dry
- Shielded with foil tape, tinned copper braid with ≥80% optical coverage, and drain wire
- Flexible, oil resistant black PVC jacket

Specifications are subject to change without prior notice

Lutze DRIVEFLEX® XLPE (C) Servo I PVC, Shielded

Flexible Composite VFD, Servo & Motor Supply Cable with one Control Pair and UL/TC-ER/WTTC/CSA/CE Approvals



Application

- Shielded multi-conductor cable for VFD, Servo and Motor applications to connect power from drives to motors
- Cable design for harsh industrial environments and operating conditions with high noise levels
- XLPE thick wall insulation with low capacitance, ideal for applications with **high voltage spikes and long cable runs**
- Compliant with **NFPA 79** for wiring of industrial machinery
- **TC-ER** for use with cable trays **without conduit**, which can reduce material and labor costs
- WTTC – wind turbine tray cable rating for use in wind power generation
- Dry, damp or wet conditions

Characteristics

- Flexible XLPE conductor design
- Non-wicking fillers
- Effective dual layer shield for EMC compliance
- Specially formulated jacket for oil resistance and easy strip design
- Low capacitance cable
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free and silicone free

Technical Data

Voltage	600V UL TC 1000V Flexible VFD Servo cable 90C 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Approvals	UL Type TC-ER UL/AWM/CSA/CE UL DP-1 Flexible VFD Servo cable WTTC Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC CIC FT4 UL 1277 Oil res II Wet/Dry RoHS, REACH

Construction

- Flexible fine wire stranded tinned copper conductors for improved electrical characteristics and reduced oxidation
- XLPE insulation, Wet/Dry (4C RHW-2, 1 Pair XHHW-2)
- Shielded with foil tape, tinned copper braid with ≥80% optical coverage, and drain wire
- Flexible, oil resistant black PVC jacket



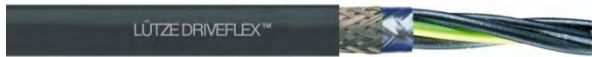
WITH ONE SHIELDED CONTROL PAIR

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
	AWG 16 (26/30) 1 TSP AWG18 (19/30)				
A2171604	4 + 1 pair	15.7	0.620	228	90
	AWG 14 (41/30) 1 TSP AWG16 (26/30)				
A2171404	4 + 1 pair	16.8	0.650	265	117
	AWG 12 (65/30) 1 TSP AWG16 (26/30)				
A2171204	4 + 1 pair	18.3	0.720	335	160
	AWG 10 (105/30) 1 TSP AWG14 (41/30)				
A2171004	4 + 1 pair	20.6	0.810	420	218
	AWG 8 (168/30) 1 TSP AWG14 (41/30)				
A2170804	4 + 1 pair	26.0	1.025	713	321
	AWG 6 (266/30) 1 TSP AWG14 (41/30)				
A2170604	4 + 1 pair	27.8	1.095	873	453
	AWG 4 (413/30) 1 TSP AWG14 (41/30)				
A2170404	4 + 1 pair	31.0	1.220	1,142	651
	AWG 2 (665/30) 1 TSP AWG14 (41/30)				
A2170204	4 + 1 pair	35.3	1.390	1,579	1,010

Specifications are subject to change without prior notice

Lutze DRIVEFLEX® XLPE (C) Servo II PVC, Shielded

Flexible Composite VFD, Servo & Motor Supply Cable with two Control Pairs and UL/TC-ER/WTTC/CSA/CE Approvals



Application

- Shielded multi-conductor cable for VFD, Servo and Motor applications to connect power from drives to motors
- Cable design for harsh industrial environments and operating conditions with high noise levels
- XLPE thick wall insulation with low capacitance, ideal for applications with **high voltage spikes and long cable runs**
- Compliant with **NFPA 79** for wiring of industrial machinery
- **TC-ER** for use with cable trays **without conduit**, which can reduce material and labor costs
- WTTC – wind turbine tray cable rating for use in wind power generation
- Dry, damp or wet conditions

Characteristics

- Flexible XLPE conductor design
- Non-wicking fillers
- Effective dual layer shield for EMC compliance
- Specially formulated jacket for oil resistance and easy strip design
- Low capacitance cable
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free and silicone free

Technical Data

Voltage	600V UL TC 1000V Flexible VFD Servo cable 90C 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Approvals	UL Type TC-ER UL/AWM/CSA/CE UL DP-1 Flexible VFD Servo cable WTTC Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC CIC FT4 UL 1277 Oil res II Wet/Dry RoHS, REACH

Construction

- Flexible fine wire stranded tinned copper conductors for improved electrical characteristics and reduced oxidation
- XLPE insulation, Wet/Dry (4C RHW-2, 2 Pairs XHHW-2)
- Shielded with foil tape, tinned copper braid with ≥80% optical coverage, and drain wire
- Flexible, oil resistant black PVC jacket



WITH TWO SHIELDED CONTROL PAIRS

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 16 (26/30) 2 TSP AWG18 (19/30)					
A2181604	4 + 2 pairs	17.8	0.699	278	113
AWG 14 (41/30) 2 TSP AWG16 (26/30)					
A2181404	4 + 2 pairs	19.3	0.760	330	149
AWG 12 (65/30) 2 TSP AWG16 (26/30)					
A2181204	4 + 2 pairs	20.2	0.795	388	187
AWG 10 (105/30) 2 TSP AWG14 (41/30)					
A2181004	4 + 2 pairs	23.6	0.930	553	261
AWG 8 (168/30) 2 TSP AWG14 (41/30)					
A2180804	4 + 2 pairs	27.7	1.090	785	364

Flexible Composite VFD, Servo & Motor Supply Cable with Three Symmetrical Grounds and UL 2kV Voltage Rating



Application

- Shielded VFD and Servo-Motor cable to connect power from drives to motors
- Three insulated symmetrical grounds design helps to reduce stray currents
- Cable design for harsh industrial environments and operating conditions with high noise levels
- 2 kV rated XLPE thick wall insulation with low capacitance, ideal for applications with **high voltage spikes and long cable runs**
- Compliant with **NFPA 79** for wiring of industrial machinery
- **TC-ER** for use with cable trays **without conduit**, which can reduce material and labor costs
- WTTC – wind turbine tray cable rating for use in wind power generation
- Dry, damp or wet conditions

Characteristics

- Flexible XLPE conductors
- Three symmetrical grounds (PE)
- Non-wicking fillers
- Effective dual layer shield for best EMC results
- Specially formulated jacket for oil resistance and easy strip design
- Low capacitance cable
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free and silicone free

Technical Data

Voltage	2000V Flexible VFD Servo cable 90C 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	7.5 x cable OD
Conductor marking	Black with white numbers and three green/yellow ground
Approvals	UL Type Flexible VFD Servo Cable UL Types WTTC, TC-ER C(UL) TC CIC control cable FT4 CE Class 1, Div. 2 per NEC Art. 336, 392, 501 UL 1277, UL2277 Oil res II Wet/Dry RoHS, REACH

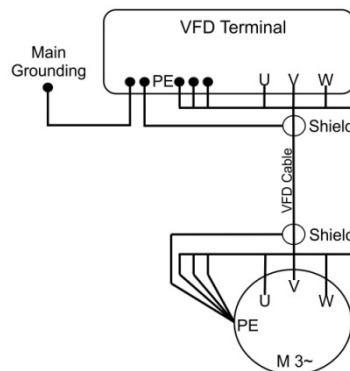
Construction

- Flexible fine wire stranded tinned copper conductors for improved electrical characteristics and reduced oxidation
- XLPE insulation, Wet/Dry
3C RHW-2 (Power), 3C XHHW-2 (Grounds/PE)
- Shielded with foil tape, tinned copper braid with ≥80% optical coverage, and drain wire
- Flexible, oil resistant black PVC jacket



WITH THREE SYMMETRICAL GROUNDS

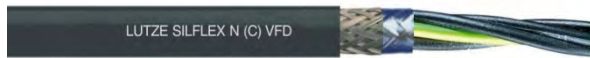
Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
	AWG 6 (206/29) AWG12 (50/29)				
A2190603	3C + 3PE	31.4	1.234	960	416
	AWG 4 (322/29) AWG12 (50/29)				
A2190403	3C + 3PE	32.6	1.281	1118	573
	AWG 2 (511/29) AWG10 (80/29)				
A2190203	3C + 3PE	34.9	1.374	1433	860
	AWG 1 (644/29) AWG8 (128/29)				
A2190103	3C + 3PE	39.2	1.543	1860	1105
	1/0 (812/29) AWG8 (128/29)				
A2191/003	3C + 3PE	43	1.693	2299	1323
	2/0 (1022/29) AWG8 (128/29)				
A2192/003	3C + 3PE	45.8	1.803	2700	1595
	3/0 (1288/29) AWG6 (206/29)				
A2193/003	3C + 3PE	51	2.008	3148	2032
	4/0 (1638/29) AWG6 (206/29)				
A2194/003	3C + 3PE	59	2.321	4120	2432



Specifications are subject to change without prior notice

Lutze Silflex® N (C) Motor PVC, Shielded

Flexible Motor Cable with UL/TC-ER/WTTC/MTW/CSA/CE Approvals



Application

- Shielded multi-conductor cable for Motor applications to connect power to 3-phase motors
- Cable design for harsh industrial environments and operating conditions with high noise levels
- Due to semi-conductive layer suitable for applications with high voltage spikes in short to medium cable runs (see Driveflex® A216/A217 series for long cable runs or use with VFDs)
- Compliant with NFPA 79 for machine tool wiring
- **TC-ER** for use with cable trays **without conduit**, which can reduce material and labor costs
- WTTC – wind turbine tray cable rating for use in wind power generation
- Dry, damp and wet locations

Characteristics

- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Very round cable with reduced cable diameter
- Specially formulated jacket for oil resistance
- Semi-conductive layer reduces corona effects, thus increasing the reliability and lifetime
- Non-wicking fillers
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free
- Silicone free

Technical Data

Voltage	600V UL TC 1000V WTTC
Temperature	-40°C - +90°C static
Bending radius	6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Approvals	UL Type TC-ER UL/AWM/CSA/CE UL MTW or DP-1 WTTC Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC CIC FT4 UL 1277 Oil Res II RoHS

Construction

- Flexible fine wire stranded tinned copper conductors for improved electrical characteristics and reduced oxidation
- PVC/Nylon insulation with semi-conductive layer
- Shielded with foil tape, tinned copper braid and drain wire
- Oil resistant PVC jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 18 (19/30)					
A1161804	4	9.7	0.384	96	38
AWG 16 (26/30)					
A1161604	4	10.2	0.402	112	49
AWG 14 (41/30)					
A1161404	4	11.4	0.448	151	74
AWG 12 (65/30)					
A1161204	4	12.8	0.503	203	112
AWG 10 (105/30)					
A1161004	4	16.7	0.658	320	171

Available in orange jacket upon request.

Larger AWG available through special order or refer to Driveflex® A216 VFD cable series.

WITH ONE SHIELDED CONTROL PAIR

AWG 16 (26/30)					
A1171604	(4C/AWG 16 + 1 pair AWG 18))	12.8	0.504	151	69
AWG 14 (41/30)					
A1171404	(4C/AWG 14 + 1 pair AWG 18))	14.5	0.569	202	93
AWG 12 (65/30)					
A1171204	(4C/AWG 12 + 1 pair AWG 16))	16.0	0.631	264	139
AWG 10 (105/30)					
A1171004	(4C/AWG 10 + 1 pair AWG 14))	19.1	0.753	373	207

Larger AWG available through special order or refer to Driveflex® A217 VFD cable series.

Specifications are subject to change without prior notice

Lutze Electronic PLTC PVC, Unshielded

Flexible Electronic Cable with UL/CSA/CE/PLTC Approvals



Application

- **Industrial grade PLTC** electronic cable for machine tools, process instrumentation and controls, computer peripherals, HVAC technology, assembly and production lines, low voltage interconnect and other industrial applications including **installation in cable trays**

Characteristics

- Flexible for easy installation
- Easy strip design
- Color coded conductors
- Specially formulated jacket for oil resistance
- Premium durability
- Extended temperature range
- **UL listed** and **NFPA 79** compliant

Technical Data

Voltage	300V
Temperature	-25°C - +105°C
Bending radius	4 x cable OD
Conductor marking	See tables
Approvals	UL Type PLTC CMG AWM Style 2464 UL VW-1 CSA FT4 AWM II A/B CE Meets NEC 725, 760, 800 Class I Div. 2 (PLTC use only) Oil Res II RoHS

Construction

- Flexible stranded tinned copper conductors
- PVC insulation
- Oil resistant gray premium PVC jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 22 (19/34)					
A3032202	2	4.4	0.172	20	4
A3032203	3	4.6	0.180	24	7
A3032204	4	4.9	0.193	28	9
A3032206	6	5.6	0.222	38	14
A3032208	8	6.0	0.238	45	19
A3032210	10	7.2	0.282	55	24
A3032215	15	7.9	0.310	75	35
A3032220	20	8.7	0.341	93	47
A3032225	25	10.4	0.408	124	59
AWG 20 (19/32)					
A3032002	2	4.9	0.195	27	7
A3032003	3	5.2	0.204	35	11
A3032004	4	5.6	0.220	41	15
A3032006	6	6.5	0.254	58	22
A3032008	8	7.2	0.282	76	30
A3032010	10	8.2	0.323	94	37
A3032015	15	11.3	0.446	136	56
A3032020	20	12.7	0.500	182	75
A3032025	25	14.0	0.551	222	94

Color Code Table AWG 22

1-	Black		
2-	Brown		
3-	Red		
4-	Orange		
5-	Yellow		
6-	Green		
7-	Blue		
8-	Purple		
9-	Gray		
10-	White		
11-	White	Black	
12-	White	Brown	
13-	White	Red	
14-	White	Orange	
15-	White	Yellow	
16-	White	Green	
17-	White	Blue	
18-	White	Purple	
19-	White	Gray	
20-	White	Black	Brown
21-	White	Black	Red
22-	White	Black	Orange
23-	White	Black	Yellow
24-	White	Black	Green
25-	White	Black	Blue

Color Code Table AWG 20

1-	Black		
2-	Red		
3-	White		
4-	Green		
5-	Orange		
6-	Blue		
7-	Brown		
8-	Yellow		
9-	Purple		
10-	Gray		
11-	Pink		
12-	Tan		
13-	Red	Green	
14-	Red	Yellow	
15-	Red	Black	
16-	White	Black	
17-	White	Red	
18-	White	Green	
19-	White	Yellow	
20-	White	Blue	
21-	White	Brown	
22-	White	Orange	
23-	White	Gray	
24-	White	Purple	
25-	White	Black	Red

Specifications are subject to change without prior notice

Lutze Electronic PLTC PVC, Shielded

Shielded Flexible Electronic Cable with UL/CSA/CE/PLTC Approvals

LÜTZE ELECTRONIC (C) Y



Application

- Double shielded industrial grade PLTC electronic cable for machine tools, process instrumentation and controls, computer peripherals, HVAC technology, assembly and production lines, low voltage interconnect and other industrial applications including installation in cable trays

Characteristics

- Flexible for easy installation
- Easy strip design
- Color coded conductors
- Specially formulated jacket for oil resistance
- Premium durability
- Extended temperature range
- UL listed and NFPA 79 compliant

Technical Data

Voltage	300V
Temperature	-25°C - +105°C
Bending radius	6 x cable OD
Conductor marking	See tables
Approvals	UL Type PLTC CMG AWM Style 2464 UL VW-1 CSA FT4 AWM II A/B CE Meets NEC 725, 760, 800 Class I Div. 2 (PLTC use only) Oil Res II RoHS

Construction

- Flexible stranded tinned copper conductors
- Shielded with foil tape, tinned copper braid and full size drain wire
- PVC insulation
- Oil resistant gray premium PVC jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 22 (19/34)					
A3132202	2	5.2	0.172	28	11
A3132203	3	5.4	0.180	33	15
A3132204	4	5.7	0.193	37	18
A3132206	6	6.5	0.222	48	24
A3132208	8	6.6	0.238	57	30
A3132210	10	8.0	0.282	68	36
A3132215	15	8.9	0.310	91	50
A3132220	20	9.7	0.341	120	62
A3132225	25	11.2	0.408	148	77
AWG 20 (19/32)					
A3132002	2	6.4	0.210	40	17
A3132003	3	6.5	0.221	49	22
A3132004	4	7.2	0.238	56	27
A3132006	6	8.5	0.289	80	37
A3132008	8	8.9	0.331	94	46
A3132010	10	10.4	0.379	115	55
A3132015	15	12.3	0.446	174	76
A3132020	20	13.5	0.500	209	97
A3132025	25	14.8	0.551	254	118

Color Code Table AWG 22

1-	Black
2-	Brown
3-	Red
4-	Orange
5-	Yellow
6-	Green
7-	Blue
8-	Purple
9-	Gray
10-	White
11-	White Black
12-	White Brown
13-	White Red
14-	White Orange
15-	White Yellow
16-	White Green
17-	White Blue
18-	White Purple
19-	White Gray
20-	White Black Brown
21-	White Black Red
22-	White Black Orange
23-	White Black Yellow
24-	White Black Green
25-	White Black Blue

Color Code Table AWG 20

1-	Black
2-	Red
3-	White
4-	Green
5-	Orange
6-	Blue
7-	Brown
8-	Yellow
9-	Purple
10-	Gray
11-	Pink
12-	Tan
13-	Red Green
14-	Red Yellow
15-	Red Black
16-	White Black
17-	White Red
18-	White Green
19-	White Yellow
20-	White Blue
21-	White Brown
22-	White Orange
23-	White Gray
24-	White Purple
25-	White Black Red

Specifications are subject to change without prior notice

Lutze Electronic (C) PLTC PVC TP, Shielded

Shielded Flexible Electronic Cable with twisted pairs and UL/CSA/CE/PLTC Approvals



Application

- Double shielded industrial grade PLTC electronic cable for machine tools, process instrumentation and controls, computer peripherals, HVAC technology, assembly and production lines, low voltage interconnect and other industrial applications including installation in cable trays

Characteristics

- Flexible for easy installation
- Easy strip design
- Color coded conductors
- Conductors twisted in pairs
- Specially formulated jacket for oil resistance
- Premium durability
- Extended temperature range
- UL listed and NFPA 79 compliant

Technical Data

Voltage	300V
Temperature	-25°C - +105°C
Bending radius	6 x cable OD
Conductor marking	See table
Approvals	UL Type PLTC
	CMG
	AWM Style 2464
	UL VW-1
	CSA FT4
	AWM II A/B
	CE
	Meets NEC 725, 760, 800
	Class I Div. 2 (PLTC use only)
	Oil Res II
	RoHS

Part No.	Description No. of pairs	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 22 (19/34)					
A3142202	1	5.2	0.203	32	12
A3142204	2	6.5	0.257	46	21
A3142206	3	7.4	0.290	60	26
A3142208	4	7.6	0.301	68	31
A3142210	5	8.5	0.335	76	37
A3142212	6	8.9	0.349	84	43
A3142216	8	9.6	0.376	102	54

AWG 20 (19/32)					
A3142002	1	6.1	0.242	44	18
A3142004	2	8.1	0.320	64	30
A3142006	3	9.1	0.358	84	38
A3142008	4	9.6	0.376	96	47
A3142010	5	10.6	0.419	113	55
A3142012	6	11.8	0.463	144	66
A3142016	8	12.6	0.498	172	84

Color Code Table AWG 22 Pair#

1-	White	Black
2-	White	Brown
3-	White	Red
4-	White	Orange
5-	White	Yellow
6-	White	Green
7-	White	Blue
8-	White	Purple

Color Code Table AWG 20 Pair#

1-	Black	Red
2-	Black	White
3-	Black	Green
4-	Black	Blue
5-	Black	Brown
6-	Black	Yellow
7-	Black	Orange
8-	Red	Green

Construction

- Flexible stranded tinned copper conductors
- Shielded with foil tape, tinned copper braid and full size drain wire
- PVC insulation
- Oil resistant gray premium PVC jacket

Specifications are subject to change without prior notice

Lutze Single Conductor Hook Up Wire, Multi-Norm

Flexible Single Conductor Hook Up Wire with UL/CSA/CE/MTW and HAR Approvals



Application

- Multi-rated single-conductor cable for wiring of cabinets and use in electrical and electronic equipment
- Specially suited for use in Europe (HAR) and North America (UL MTW + CSA TEW)
- MTW rating compliant with **NFPA 79** for machine tool wiring

Characteristics

- Fine stranding class 5, per VDE 0295
- Very flexible for easy installation

Technical Data

Nominal voltage	H05V2-K 300/500 V, H07V2-K 450/750 V, UL 600 V, style 1015
Test voltage	3000V
Bending radius	Fixed: 5 x cable OD
Temperature	Flexible -5 to +105°C Fixed -40 to + 105°C H05/H07 up to +90°C
Conductor stranding	Fine wire, tinned copper per VDE 0295 class 5, IEC 60228 class 5
Insulation resistance	20 MΩ x km
Approvals	HAR: HD 21.3 S3 - H05V-K (≤ AWG 18) - H07V-K (≥ AWG 16) UL 1063 MTW Listed UL AWM 1015 CSA TEW RoHS compliant
Put ups	AWG 19 – AWG 12 100m (328 ft) carton or ring 500m (1,640 ft) reel upon request AWG 10 and larger Cuts of any length up to 1,000m (3,280 ft) reel

Construction

- Flexible stranded tinned copper conductors
- PVC insulation according to UL 1581, class 43 heat and humidity resistant
- Flame retardant and self extinguishing per UL VW-1, IEC 60332-1
- Free from silicone and other varnish damaging substances
- RoHS compliant
- Conditionally resistant to oils, solvents, acids and bases

More colors and sizes upon request. Please call us for information!

Part No.	Description Color	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 19 / 0.75 mm²					
H05V2-K					
A61900	Green/Yellow	2.7	0.106	9	5
A61901	Black	2.7	0.106	9	5
A61902	Blue	2.7	0.106	9	5
A61903	Brown	2.7	0.106	9	5
A61904	Red	2.7	0.106	9	5
A61914	Dark Blue	2.7	0.106	9	5
AWG 18 / 1.0 mm²					
H05V2-K					
A61800	Green/Yellow	2.9	0.114	10	6
A61801	Black	2.9	0.114	10	6
A61802	Blue	2.9	0.114	10	6
A61803	Brown	2.9	0.114	10	6
A61804	Red	2.9	0.114	10	6
A61814	Dark Blue	2.9	0.114	10	6
A61844	White/Blue	2.9	0.114	10	6
AWG 16 / 1.5 mm²					
H07V2-K					
A61600	Green/Yellow	3.3	0.130	14	10
A61601	Black	3.3	0.130	14	10
A61602	Blue	3.3	0.130	14	10
A61603	Brown	3.3	0.130	14	10
A61604	Red	3.3	0.130	14	10
A61605	White	3.3	0.130	14	10
A61614	Dark Blue	3.3	0.130	14	10
A61615	Blue/White	3.3	0.130	14	10
A61644	White/Blue	3.3	0.130	14	10
AWG 14 / 2.5 mm²					
H07V2-K					
A61400	Green/Yellow	3.7	0.145	21	16
A61401	Black	3.7	0.145	21	16
A61402	Blue	3.7	0.145	21	16
A61403	Brown	3.7	0.145	21	16
A61404	Red	3.7	0.145	21	16
A61405	White	3.7	0.145	21	16
A61414	Dark Blue	3.7	0.145	21	16
AWG 12 / 4.0 mm²					
H07V2-K					
A61200	Green/Yellow	4.3	0.169	31	25
A61201	Black	4.3	0.169	31	25
AWG 10/ 6.0 mm²					
H07V2-K					
A61000	Green/Yellow	4.8	0.189	44	39
A61001	Black	4.8	0.189	44	39
AWG 8 / 10 mm²					
H07V2-K					
A60800	Green/Yellow	6.8	0.267	76	64
A60801	Black	6.8	0.267	76	64

Specifications are subject to change without prior notice

Lutze Single Conductor Hook Up Wire, Multi-Norm

Flexible Single Conductor Hook Up Wire with UL/CSA/CE/MTW and HAR Approvals



Application

- Multi-rated single-conductor cable for wiring of cabinets and use in electrical and electronic equipment
- Specially suited for use in Europe (HAR) and North America (UL MTW + CSA TEW)
- MTW rating compliant with **NFPA 79** for machine tool wiring

Characteristics

- Fine stranding class 5, per VDE 0295
- Very flexible for easy installation
- MTW rated

Technical Data

Nominal voltage	H05V2-K 300/500 V, H07V2-K 450/750 V, UL 600 V, style 1015
Test voltage	3000V
Bending radius	Fixed: 5 x cable OD
Temperature	Flexible -5 to +105°C Fixed -40 to +105°C
Conductor stranding	Fine wire, tinned copper per VDE 0295 class 5, IEC 60228 class 5
Insulation resistance	20 MΩ x km
Approvals	HAR: HD 21.3 S3 - H05V-K (≤ AWG 18) - H07V-K (≥ AWG 16) UL 1063 MTW Listed UL AWM 1015 CSA TEW RoHS compliant
Put ups	AWG 19 – AWG 12 100m (328 ft) carton or ring 500m (1,640 ft) reel upon request AWG 10 and larger Cuts of any length up to 1,000m (3,280 ft) reel

Part No.	Description Color	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 6 / 16 mm² X07V2-K					
A60600	Green/Yellow	8.6	0.338	126	103
A60601	Black	8.6	0.338	126	103
AWG 4 / 25 mm² H07V2-K					
A60400	Green/Yellow	10	0.394	180	161
A60401	Black	10	0.394	180	161
AWG 2 / 35 mm² H07V2-K					
A60200	Green/Yellow	11	0.433	247	225
A60201	Black	11	0.433	247	225
AWG 1 / 50 mm² X07V2-K					
A60100	Green/Yellow	14	0.511	347	322
A60101	Black	14	0.511	347	322
AWG 2/0 / 70 mm² X07V2-K					
A67000	Green/Yellow	15.6	0.614	475	452
A67001	Black	15.6	0.614	475	452
AWG 3/0 / 95 mm² X07V2-K					
A69500	Green/Yellow	17.8	0.701	629	613
A69501	Black	17.8	0.701	629	613

Construction

- Flexible stranded tinned copper conductors
- PVC insulation according to UL 1581, class 43 heat and humidity resistant
- Flame retardant and self extinguishing per UL VW-1, IEC 60332-1
- Free from silicone and other varnish damaging substances
- RoHS compliant
- Conditionally resistant to oils, solvents, acids and bases

More colors and sizes upon request. Please call us for information!

Specifications are subject to change without prior notice

Lutze ETHERNET/ProfiNet Network Cable (C), Shielded PVC

Flexible ETHERNET Network Cable with UL/CSA/CE Approvals



Application

- Flexible Industrial Field Network cable for Fast Ethernet applications
- UL listed and compliant with NFPA 79 2007 requirements

Characteristics

- Shielded for optimal data integrity in industrial environments
- Silicone/Talc free

Technical Data

Impedance	100 Ω +/- 10% (1-100 MHz)
Loop Resistance	
AWG22	<110 Ω/km
AWG24	<165 Ω/km
AWG26	<273 Ω/km
Operating capacitance	< 50 pF/m
Nominal Voltage	250V
Test Voltage	1500V
Temperature	
Moving	-5°C - +75°C, CMG
Fixed	-30°C - +75°C, CMG
Bending radius fixed	6 x cable OD
Approvals	UL/CSA/CE CMG UL 1581 UL VW-1 CSA FT4 IEC 60332-1 Meets NEC 800 RoHS

Construction

- Bare copper conductor per AWG
- Polyolefin insulation
- CAT 5/5e, overall foil and tinned copper braid shield
- CAT 6a/7, twisted conductor pairs individually shielded with foil and overall tinned copper braid shield
- Green PVC jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
----------	----------------------------------	------------------	------------------	-------------------	-------------------

CAT 5 100 MHz, SF/UQP, UL600V AWM, CMG, PLTC Industrial Ethernet, ProfiNet, EtherCAT

104301	(2x2x0.22 Ø) (2 pair AWG 22/1) STAR QUAD Type A WH,YE; OG,BU	6.5	0.256	24.8	24.8
104307	(2x2x0.22 Ø) (2 pair AWG 22/7) STAR QUAD Type B WH,YE; OG,BU	6.5	0.256	24.8	20.8

CAT 5e 100 MHz, SF/UTP, CMG Industrial Ethernet, Ethernet IP

104335	(4x2xAWG 26/7 StC) WH/BU, BU; WH/OG, OG; WH/GN, GN; WH/BN, BN	6.3	0.248	36.2	20
104336	(4x2xAWG 24/7 StC) WH/BU, BU; WH/OG, OG; WH/GN, GN; WH/BN, BN	7.6	0.299	44.9	37

CAT 6a 500 MHz, S/FTP, CMG Industrial Ethernet, Ethernet IP, Gigabit Ethernet

104338	(4x(2xAWG26/7)StC) WH/BU, BU; WH/OG, OG; WH/GN, GN; WH/BN, BN	6.4	0.252	35.5	22
--------	--	-----	-------	------	----

CAT 7 600 MHz, S/FTP, CMG Industrial Ethernet, Ethernet IP, 10 Gigabit Ethernet

104331	(4x(2xAWG26/7)StC) WH/BU, BU; WH/OG, OG; WH/GN, GN; WH/BN, BN	7.0	0.276	41.9	22
--------	--	-----	-------	------	----

Specifications are subject to change without prior notice

Lutze BUS (C), Shielded

Flexible Bus Cable with International Approvals



Application

- Flexible Bus and Network cable for wiring of industrial bus systems

Technical Data

Approvals	See each cable
Temperature	See each cable
Bending radius	See each cable

Characteristics

- Specially formulated jacket for oil resistance
- RoHS compliant
- Profibus and CAN-BUS Purple PVC Jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
----------	----------------------------------	------------------	------------------	-------------------	-------------------

Profibus

Impedance: $150 \Omega \pm 15 \Omega$; Loop resistance: $<175 \Omega/\text{km}$; Mutual capacitance: $<30\text{pF/m}$
UL listed CMG 75°C and UL AWM 20201 60°C 600V

Temp.:	Moving	-5°C - +70°C	Bend. radius:	Moving	D x 12
	Fixed	-30°C - +80°C		Fixed	D x 6

104344	(1x2x0.64 Ø) (1 pair AWG 24/7) RD, GN	7.9	0.311	36	17
---------------	---	-----	-------	----	----



Profibus FC (Insulation Displacement Connection)

Impedance: $150 \Omega \pm 15 \%$; Loop resistance: $<155 \Omega/\text{km}$
UL listed CMG 75°C and UL AWM 20201 60°C 600V

Temp.:	Moving	-5°C - +70°C	Bend. radius:	Moving	D x 12
	Fixed	-30°C - +80°C		Fixed	D x 6

104293	(1x2x0.64 Ø) (1 pair AWG 22/1) RD, GN solid conductors	8.0	0.319	61.0	13
---------------	---	-----	-------	------	----



CAN-BUS

Impedance: 100 or 120 Ω ; Loop resistance: $<165 \Omega/\text{km}$
UL recognized 80°C 300V, IEC 60332-1

Temp.:	Moving	-5°C - +70°C	Bend. radius:	Moving	D x 12
	Fixed	-30°C - +80°C		Fixed	D x 6

104205	(1x2x0.22/AWG24/7) WH/BN	4.7	0.185	36	17
---------------	-----------------------------	-----	-------	----	----

104206	(2x2x0.22/AWG24/7) WH/BN,GY/YE	7.0	0.276	29	16
---------------	-----------------------------------	-----	-------	----	----



ODVA DeviceNet™

Gray PVC jacket; 300V UL Class 2, CM, CL2, CSA I/II A, ODVA Class 2,
UL1685 Vertical Tray Flame

Temp.:	Moving	-20°C - +80°C	Bend. radius:	Moving	D x 12
	Fixed	-40°C - +80°C		Fixed	D x 6

104280	((2xAWG 22) + (2xAWG 24))	7.1	0.280	41	57
---------------	------------------------------	-----	-------	----	----

104281	((2xAWG 16) + (2xAWG 18))	12.2	0.480	108	144
---------------	------------------------------	------	-------	-----	-----



ASI BUS

Yellow or black TPE jacket; Loop resistance: 27.4 m Ω/m

Temp.:	Moving	-5°C - +70°C
	Fixed	-30°C - +70°C

AWG 16 / 1.5 mm ²					
104216	(2C/AWG 16)	Yellow	TPE	45.6	28

104217	(2C/AWG 16)	Black	TPE	45.6	28.8
---------------	-------------	-------	-----	------	------



Specifications are subject to change without prior notice

High Flexing Cables

Lutze Superflex®, Superflex® Plus for Continuously Moving/Flexing Applications, C-track



Lutze Superflex® N PVC, Unshielded

High Flexing Control Cable with UL/CSA/CE Approvals



Application

- Suitable for control, monitoring and instrumentation applications with continuous flexing cycles
- For flexing applications such as C-tracks and other applications where linear flexing occurs
- Compatible with all major brand C-tracks

Characteristics

- Extremely small cable ODs due to special **TPE High Glide Insulation** compliant with UL
- TPE/PVC combination for high performance flexing and longer cable runs
- Low capacitance
- Very flexible with superfine stranding
- Specially formulated PVC jacket per UL Class 43
- Non-wicking fillers
- Abrasion, high wear and tear resistance
- Hydrolysis, microbe and decompose resistant
- Talc free
- Silicone free
- Dry and wet conditions

Technical Data

Voltage	600V UL AWM
Test voltage	3000 V
Insulation resistance	Min 100 MΩ x km
Temperature	Moving -5 - +90°C Fixed -40 - +90°C
Bending radius	Moving 7.5 x cable OD Fixed 4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Burning behavior	Flame-retardant per UL VW-1, DIN EN 50265-2-1
Oil resistance	4D100C, UL Oil res 80°C and DIN EN 60811-2-1
Approvals	cUL AWM Styles 10429/20207 CSA AWM I/II AB 80C 600V FT1, CE

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- HGI insulation based on TPE
- Optimized construction for flexing applications
- Conductors cabled with fleece wrap
- Special high strength PVC Jacket per UL class 43 / VDE 0207 TM5, oil resistant
- Gray Jacket RAL 7001

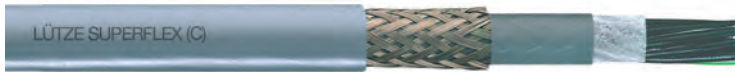
Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 20 / 0.5 mm²					
A1382003	3	5.7	0.224	29.5	9.8
A1382004	4	6.1	0.240	35.5	13
A1382005	5	6.7	0.264	41.5	16
A1382007	7	7.7	0.303	52.9	23
A1382012	12	9.3	0.366	77.7	39
A1382018	18	10.7	0.421	108.5	59
A1382025	25	12.5	0.492	146.0	82
AWG 18 / 1.0 mm²					
A1381803	3	6.6	0.260	44.2	13
A1381804	4	7.2	0.283	54.3	20
A1381805	5	7.8	0.307	63.6	27
A1381807	7	9.1	0.358	83.1	33
A1381812	12	10.8	0.425	126.6	46
A1381818	18	12.7	0.500	178.9	80
A1381825	25	15.1	0.594	243.2	119
A1381834	34	16.8	0.661	318.3	166
A1381841	41	19.0	0.750	325.1	272
A1381850	50	21.3	0.839	331.7	332
AWG 16 / 1.5 mm²					
A1381603	3	7.2	0.283	57.6	30
A1381604	4	7.8	0.307	71.0	39
A1381605	5	8.6	0.339	84.4	49
A1381607	7	10.1	0.398	111.2	69
A1381612	12	12.4	0.488	172.9	118
A1381618	18	14.5	0.571	245.9	177
A1381625	25	16.8	0.661	335.7	246
AWG 14 / 2.5 mm²					
A1381404	4	9.1	0.358	106.5	65
A1381405	5	10.0	0.394	126.6	82
A1381407	7	12.1	0.476	169.5	114
AWG 12 / 4 mm²					
A1381204	4	10.7	0.421	154.1	105
A1381207	7	14.0	0.551	252.6	183

High performance linear flexing cable, compliant with **NFPA 79, 2012 Edition** Article 12.9 special cables and conductors.

Specifications are subject to change without prior notice

Lutze Superflex® N (C) PVC, Shielded

High Flexing Control Cable with UL/CSA/CE Approvals



Application

- Braid shielded, multi-conductor high flexing cable suitable for control, monitoring and instrumentation applications with continuous flexing in C-track
- Machine tools, gantry robots, conveyors and other continuous motion applications in industrial environments
- For flexing applications such as C-tracks and other applications where linear flexing occurs
- Compatible with all major brand C-tracks

Characteristics

- Extremely small cable ODs due to special **TPE High Glide Insulation** compliant with UL
- Sub-Jacket for increased flex life in high performance flexing and long cable runs
- Low capacitance
- Very flexible with superfine stranding
- Specially formulated PVC jacket per UL Class 43
- Non-wicking fillers
- Abrasion, high wear and tear resistance
- Hydrolysis, microbe and decompose resistant
- Talc free
- Silicone free
- Dry and wet conditions

Technical Data

Voltage	600V UL AWM
Test voltage	3000 V
Insulation resistance	Min 100 MΩ x km
Temperature	Moving -5 - +90°C Fixed -40 - +90°C
Bending radius	Moving 10 x cable OD Fixed 6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Burning behavior	Flame-retardant per UL VW-1, DIN EN 50265-2-1 FT1
Oil resistance	4D100C, UL Oil res 80°C and DIN EN 60811-2-1
Approvals	cUL AWM Styles 10429/2570 CSA AWM I/II A/B 80C 600V FT1, CE

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- HGI insulation based on TPE
- Optimized construction for flexing applications
- Conductors cabled with fleece wrap
- PVC Sub-Jacket
- Tinned copper braid shield
- Special high strength PVC Jacket per UL class 43 / VDE 0207 TM5, oil resistant
- Gray Jacket RAL 7001

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 20 / 0.5 mm²					
A1392003	3	7.4	0.292	54	21
A1392004	4	7.8	0.307	60	25
A1392005	5	8.5	0.333	71	29
A1392007	7	9.7	0.382	94	43
A1392012	12	11.3	0.444	129	64
A1392018	18	13.1	0.516	176	93
A1392025	25	15.1	0.593	202	119
AWG 18 / 1.0 mm²					
A1391803	3	8.2	0.323	71	32
A1391804	4	8.8	0.347	83	40
A1391805	5	9.6	0.378	103	54
A1391807	7	11	0.431	133	70
A1391812	12	13	0.512	189	110
A1391818	18	14.9	0.587	260	161
A1391825	25	17.6	0.691	318	224
A1391834	34	19.4	0.765	399	291
AWG 16 / 1.5 mm²					
A1391603	3	8.8	0.346	88	44
A1391604	4	9.6	0.378	109	60
A1391605	5	10.4	0.411	128	72
A1391607	7	11.9	0.469	165	95
A1391612	12	14.1	0.556	239	151
A1391618	18	16.2	0.638	336	224
A1391625	25	19.4	0.764	431	312
AWG 14 / 2.5 mm²					
A1391404	4	11	0.433	155	90
A1391405	5	11.9	0.469	179	109
A1391407	7	13.6	0.537	216	143
AWG 12 / 4 mm²					
A1391204	4	12.6	0.496	214	135
A1391207	7	15.9	0.625	311	222

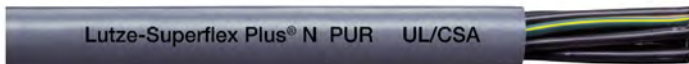
High performance linear flexing cable, compliant with **NFPA 79, 2012 Edition Article 12.9** Special cables and Conductors.

Specifications are subject to change without prior notice

Lutze Superflex® Plus N PUR, Unshielded

High Flexing Control Cable with UL/CSA/CE Approvals

halogen-free



Application

- Multi-conductor cable for robots, handling equipment, machine tools, C-tracks and applications with extremely rough operating conditions
- For the most demanding flexing applications such as C-tracks and linear flexing
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- Extremely small cable ODs due to special **TPE High Glide Insulation** compliant with UL
- Reduced friction
- PUR jacket
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- Dry and wet conditions
- UV resistant
- Non-wicking fillers
- Silicone/Talc free

Technical Data

Voltage	300/600V UL AWM
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 7.5 x cable OD Fixed 4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground; *no ground included
Isolation resistance	Min 100 MΩ x km
Approvals	UL/CSA/CE Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Flame-retardant per DIN EN 50265-2-1, IEC 60332-1 UL VW-1 FT 1 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- HGI insulation based on TPE
- Extremely oil resistant gray PUR jacket

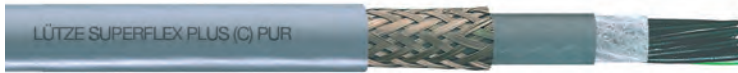
Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 20 / 0.5 mm² 300V UL AWM					
113431	2*	4.7	0.185	18.1	7
113441	3	4.9	0.193	21.4	10
113442	4	5.2	0.205	27.5	13
113443	5	5.6	0.220	36.9	16
113444	7	6.6	0.260	42.9	23
113446	12	8.0	0.315	64.3	40
113438	18	9.0	0.354	92.5	59
113447	25	10.8	0.425	121.9	82
AWG 18 / 1.0 mm² 300V UL AWM					
113484	2*	5.8	0.228	31.5	13
113400	3	6.1	0.240	33.5	20
113433	4	6.6	0.260	48.2	27
113401	5	7.2	0.283	57.0	34
113402	7	8.7	0.343	77.1	46
113403	12	10.1	0.398	120.6	80
113404	18	11.6	0.457	180.9	119
113405	25	14.1	0.555	227.1	166
AWG 16 / 1.5 mm² 600V UL AWM					
113485	2*	6.8	0.268	51.6	19
113406	3	8.0	0.315	52.3	30
113412	4	8.3	0.327	63.7	40
113407	5	9.1	0.360	77.1	50
113408	7	10.0	0.394	117.3	69
113409	12	12.6	0.496	177.6	118
113410	18	14.9	0.587	240.5	178
113411	25	17.6	0.693	348.4	247
AWG 14 / 2.5 mm² 600V UL AWM					
113483	3	9.2	0.362	81.1	49
113415	4	9.9	0.390	95.8	66
113416	5	10.7	0.421	117.3	82
113417	7	12.6	0.496	164.2	114
113426	12	15.5	0.610	261.3	192
113479	18	17.6	0.693	389.3	294

Specifications are subject to change without prior notice

Lutze Superflex® Plus N (C) PUR, Shielded

High Flexing Control Cable with UL/CSA/CE Approvals

halogen-free



Application

- Multi-conductor cable for robots, handling equipment, machine tools, C-tracks and applications with extremely rough operating conditions
- For the most demanding flexing applications such as C-tracks and linear flexing
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- Extremely small cable ODs due to special **TPE High Glide Insulation** compliant with UL
- Reduced friction
- PUR jacket
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- Dry and wet conditions
- UV resistant
- Non-wicking fillers
- Talc free

Technical Data

Voltage	300/600V UL AWM
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 10 x cable OD Fixed 6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Isolation resistance	Min 100 MΩ x km
Approvals	UL/CSA/CE Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Flame-retardant per DIN EN 50265-2-1, IEC 60332-1 UL VW-1 FT 1 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- HGI insulation based on TPE
- TPE subjacket for long flex life
- Tinned copper braid shield
- Extremely oil resistant gray PUR jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 20 / 0.5 mm² 300V UL AWM					
113300	3	6.3	0.248	41.0	18
113347	4	6.9	0.272	46.2	22
113301	5	7.3	0.287	53.1	26
113302	7	8.2	0.323	65.9	34
113303	12	9.7	0.382	91.4	53
113304	18	11.0	0.433	129.0	80
113305	25	11.7	0.461	167.3	107
AWG 18 / 1.0 mm² 300V UL AWM					
113312	3	7.8	0.307	61.1	30
113324	4	8.3	0.327	71.2	38
113313	5	8.9	0.350	82.0	46
113314	7	10.1	0.398	104.8	61
113315	12	11.5	0.453	161.3	103
113316	18	13.1	0.516	217.7	147
113317	25	15.8	0.622	295.7	204
AWG 16 / 1.5 mm² 600V UL AWM					
113318	3	9.5	0.374	80.6	42
113331	4	10.5	0.413	94.7	58
113319	5	11.3	0.445	118.3	70
113320	7	13.2	0.484	163.3	93
113321	12	14.7	0.563	235.2	147
113322	18	16.7	0.650	326.6	217
113323	25	19.7	0.764	454.3	310
AWG 14 / 2.5 mm² 600V UL AWM					
113341	3	10.1	0.398	125.0	64
113332	4	11.7	0.461	160.6	86
113339	5	12.6	0.496	186.8	105
113340	7	14.4	0.567	241.9	142
113344	12	17.1	0.673	365.2	236
113342	18	19.9	0.783	526.6	356

Specifications are subject to change without prior notice

1-800-447-2371

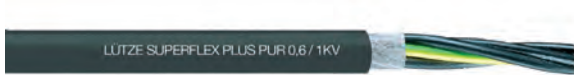


www.lutze.com

Lutze Superflex® Plus N PUR 0.6/1kV, Unshielded

High Flexing Motor Cable with UL/CSA/CE Approvals

halogen-free



Application

- High flexible multi-conductor cable for continuous moving applications such as machine tools, handling equipment and processing machines
- Designed for demanding industrial C-track applications
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- TPE conductor insulation
- Low capacitance
- PUR jacket
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- UV resistant
- Non-wicking fillers
- Silicone/Talc free

Technical Data

Voltage	1000V UL AWM U ₀ /U 0.6/1kV
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 7.5 x cable OD Fixed 4 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Isolation resistance	Min 100MΩ x km
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- HGI insulation based on TPE
- Extremely oil resistant black PUR jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
	AWG 16 / 1.5 mm²				
111370	4	7.7	0.303	81.1	39
	AWG 14 / 2.5 mm²				
111371	4	9.3	0.366	95.8	64
	AWG 12 / 4 mm²				
111372	4	10.8	0.425	156.1	103
	AWG 10 / 6 mm²				
111373	4	12.9	0.508	219.8	155
	AWG 8 / 10 mm²				
111374	4	15.5	0.610	351.8	257
	AWG 6 / 16 mm²				
111375	4	18.8	0.740	663.3	411
	AWG 4 / 25 mm²				
111376	4	23.7	0.933	804.0	643
	AWG 2 / 35 mm²				
111377	4	26.6	1.041	1,239.5	901
	AWG 1 / 50 mm²				
111378	4	31.8	1.252	1,641.5	1,286

Specifications are subject to change without prior notice

Lutze Superflex® Plus N (C) PUR 0.6/1kV, Shielded

High Flexing Motor Cable 0.6/1kV, Shielded, Orange

halogen-free

LÜTZE SUPERFLEX PLUS (C) PUR



Application

- High flexing Servo Motor, Motor and VFD Cable for C-tracks and applications with extremely rough operating conditions and oil exposure
- Designed for demanding industrial C-track applications
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- TPE conductor insulation
- Low capacitance
- PUR jacket
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- UV resistant
- Non-wicking fillers
- Silicone/Talc free

Technical Data

Voltage	1000V UL AWM U ₀ /U 0.6/1kV
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 10 x cable OD Fixed 6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Isolation resistance	Min 100MΩ x km
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- HGI insulation based on TPE
- Tinned copper braid shield
- Extremely oil resistant orange PUR jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
111460	AWG 16 / 1.5 mm ² 4	8.0	0.315	78.4	52
111461	AWG 14 / 2.5 mm ² 4	9.6	0.378	115.9	80
111462	AWG 12 / 4 mm ² 4	11.1	0.437	164.2	126
111463	AWG 10 / 6 mm ² 4	13.4	0.528	244.6	194
111464	AWG 8 / 10 mm ² 4	16.7	0.657	367.8	302
111465	AWG 6 / 16 mm ² 4	19.7	0.776	568.8	476
111466	AWG 4 / 25 mm ² 4	25.4	1.000	870.3	737
111467	AWG 2 / 35 mm ² 4	28.3	1.114	1,133.6	1,012
111468	AWG 1 / 50 mm ² 4	32.9	1.295	1,636.1	1,427

Specifications are subject to change without prior notice

1-800-447-2371

LUTZE
SYSTEMATIC TECHNOLOGY

www.lutze.com

Lutze Superflex® Plus (C) PUR 0.6/1kV, Shielded

High Flexing Composite Motor Cable with UL/CSA/CE/DESINA Approvals

halogen-free



Application

- High flexing multi-conductor cable for VFD and Motor applications with one or two control pairs such as Siemens and Indramat
- Designed for demanding C-track applications
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- TPE conductor insulation
- Reduced friction
- PUR jacket
- Low capacitance
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- UV resistant
- Non-wicking fillers
- Silicone/Talc free

Technical Data

Voltage	1000V UL AWM U ₀ /U 0.6/1kV
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 10 x cable OD Fixed 6 x cable OD
Conductor marking	Black with white numbers and one green/yellow ground
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- HGI insulation based on TPE
- Tinned copper braid shield
- Extremely oil resistant orange PUR jacket

WITH ONE CONTROL PAIR

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
111420	AWG 16 / 1.5 mm ² (4C/AWG 16 + 1 pair AWG 16))	10.5	0.413	140.7	91
111421	AWG 14 / 2.5 mm ² (4C/AWG 14 + 1 pair AWG 16))	12.1	0.476	157.5	117
111422	AWG 12 / 4 mm ² (4C/AWG 12 + 1 pair AWG 16))	13.6	0.535	214.4	170
111423	AWG 10 / 6 mm ² (4C/AWG 10 + 1 pair AWG 16))	15.5	0.614	288.1	230
111424	AWG 8 / 10 mm ² (4C/AWG 8 + 1 pair AWG 16))	18.3	0.720	455.6	338
111425	AWG 6 / 16 mm ² (4C/AWG 6 + 1 pair AWG 16))	21.4	0.843	576.2	517
111426	AWG 4 / 25 mm ² (4C/AWG 4 + 1 pair AWG 16))	25.7	1.012	914.6	771
111427	AWG 2 / 35 mm ² (4C/AWG 2 + 1 pair AWG 16))	29.9	1.177	1,259.6	1,052

WITH TWO CONTROL PAIRS

111271	AWG 16 / 1.5 mm ² (4C/AWG 16 + 2(TSP AWG 19))	12.5	0.492	170.9	109
111272	AWG 14 / 2.5 mm ² (4C/AWG 14 + 2(TSP AWG 19))	13.5	0.531	213.7	144
111280	AWG 12 / 4 mm ² (4C/AWG 12 + 2(TSP AWG 16))	16.0	0.630	304.2	227
111281	AWG 10 / 6 mm ² (4C/AWG 10 + 2(TSP AWG 16))	17.9	0.705	361.8	265
111282	AWG 8 / 10 mm ² (4C/AWG 8 + 2(TSP AWG 16))	19.8	0.780	492.5	399
111276	AWG 6 / 16 mm ² (4C/AWG 6 + 2(TSP AWG 16))	23.2	0.913	712.9	551

Specifications are subject to change without prior notice

Lutze Superflex® Plus (C) PUR Kombi (Feedback), Shielded

High Flexing Composite Feedback Cable with UL/CSA/CE/DESINA Approvals

halogen-free



Application

- High flexing composite cable for continuous moving feedback applications, gantry robots, machine tools and plant construction
- Designed for demanding C-track applications
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- PUR jacket TPE conductor insulation for use in extremely harsh operating conditions
- Low capacitance
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- UV resistant
- Non-wicking fillers
- Silicone/Talc free

Technical Data

Voltage	300V UL AWM
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 12 x cable OD Fixed 6 x cable OD
Conductor marking	DIN 47100 if not specified
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Halogen free per DIN EN 50264-1, EN 50267-2-1 EN 60684-2 Oil Res II RoHS

Construction

- Super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- TPE insulation
- Tinned copper braid shield
- Extremely oil resistant orange or green PUR jacket

Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
----------	--	------------------	------------------	-------------------	-------------------

ORANGE JACKET (for Indramat)

110941	(2x1.0 + 4x2x0.25) (2C/AWG 18 + 4 TP AWG 24) 1.0: WH; BN 0.25: BN,GN; GY,PK; BU,VT; RD,BK	8.3	0.326	67	42
110940	(9x0.5) (9C/AWG 20)	8.8	0.346	83.8	40

GREEN JACKET (for Siemens)

111455	(4x0.5 + 4x2x0.14) (4C/AWG 20 + 4 TP AWG 26) 0.5: WH; BU; WH/GN; BN/GN 0.14: YE,VT; GY,PK; WH,GN; BN,GN	8.0	0.315	60.3	33
111456	(4x0.5 + 4x2x0.38) (4C/AWG 20 + 4 TP AWG 21) 0.5: WH/BU; WH/BK; WH/RD; WH/YE 0.38: BK,BN; RD,OG; GN,YE; BU,VT	9.2	0.362	88.4	58
111457	(2x0.5+3x(2x0.14) + 4x0.23+4x0.14) (2C/AWG 20 + 3 TSP AWG 26 + 4C/AWG 24 + 4C/AWG 26) 0.5: BN/BU; BN/RD 0.23: GN/BK; GN/RD; BN/YE; BN/GY (0.14): BK,BN; RD,OG; YE,GN 0.14: BU; GY; WH/BK; WH/YE	10.3	0.405	102.5	62
111458	(2x0.5 + 3x(2x0.14) + 4x0.14) (2C/AWG 20 + 3 TSP AWG 26 + 4C/AWG 26) 0.5: BN/BU; BN/RD (0.14): BK,BN; RD,OG; YE,GN 0.14: BU; GY; WH/BK; WH/YE	8.5	0.334	81.7	41
111459	(2x(0.5) + 3x(2x0.14)) (2C/AWG 20 + 3 TSP AWG 26) 0.5: BK; RD 0.14: BK,BN; RD,OG; GN,YE	8.7	0.343	69.7	50

TP=Twisted Pair

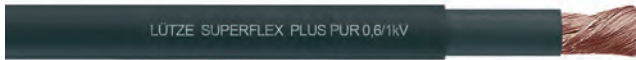
TSP=Twisted Shielded Pair

Specifications are subject to change without prior notice

Lutze Superflex® Plus PUR 0.6/1kV, Unshielded

High Flexing Single Conductor Motor Cable 0.6/1kV, Unshielded

halogen-free



Application

- Performance flexing cable, specifically suitable for machine and device construction for transport and conveyor technology
- As motor supply or ground conductor
- Optimally suited for C-tracks in extremely harsh operating conditions
- Compatible with all major brand C-tracks

Characteristics

- Flame-retardant, self-extinguishing
- Very good alternating bending strength
- Good pressure and roll-over resistance
- Superfine stranding per Class 6 for continuous moving applications
- TPE insulation with very high break through resistance
- PUR jacket for highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- UV resistant
- Silicone/Talc free

Technical Data

Voltage	U ₀ /U 0.6/1kV
Test voltage	4000V
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 7.5 x cable OD Fixed 4 x cable OD
Isolation resistance	Min 20MΩ x km
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 class 6 or IEC 60228 class 6
- TPE insulation
- Extremely oil resistant black PUR jacket

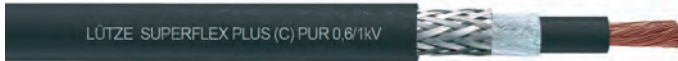
Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
111126	AWG8/01C / 1x10.00 mm ²	8.4	0.331	93	62
111127	AWG6/01C / 1x16.00 mm ²	9.8	0.386	138	99
111128	AWG4/01C / 1x25.00 mm ²	11.4	0.449	206	157
111129	AWG2/01C / 1x35.00 mm ²	13.4	0.528	290	219
111130	AWG1/01C / 1x50.00 mm ²	15.2	0.598	384	321
111131	AWG2/0/01C / 1x70.00 mm ²	16.6	0.654	526	433
111132	AWG3/0/01C / 1x95.00 mm ²	19.2	0.756	701	597
111133	AWG4/0/01C / 1x120.00 mm ²	22.2	0.874	874	806

Specifications are subject to change without prior notice

Lutze Superflex® Plus PUR 0.6/1kV, Shielded

High Flexing Single Conductor Motor Cable 0.6/1kV, Shielded

halogen-free



Application

- Performance flexing cable, specifically suitable for machine and device construction for transport and conveyor technology
- As motor supply or ground conductor
- Optimally suited for C-tracks in extremely harsh operating conditions
- Compatible with all major brand C-tracks

Characteristics

- Flame-retardant, self-extinguishing
- Very good alternating bending strength
- Good pressure and roll-over resistance
- Superfine stranding per Class 6 for continuous moving applications
- TPE insulation with very high break through resistance
- PUR jacket for highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- UV resistant
- Silicone/Talc free

Technical Data

Voltage	U ₀ /U 0.6/1kV
Test Voltage	4000V
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 7.5 x cable OD Fixed 4 x cable OD
Isolation resistance	Min 20MΩ x km
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- TPE insulation
- Tinned copper braid shield
- Extremely oil resistant black PUR jacket

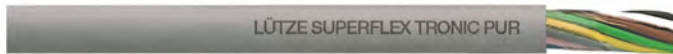
Part No.	Description No. of conductors incl. ground	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
111289	(AWG 8/01C) / (1x10.00 mm ²)	9.5	0.374	122	81
111290	(AWG 6/01C) / (1x16.00 mm ²)	11.0	0.433	167	121
111291	(AWG 4/01C) / (1x25.00 mm ²)	13.5	0.531	217	183
111292	(AWG 2/01C) / (1x35.00 mm ²)	15.1	0.594	303	250
111293	(AWG 1/01C) / (1x50.00 mm ²)	17.1	0.673	436	356
111294	(AWG 2/0/01C) / (1x70.00 mm ²)	20.1	0.791	599	473
111295	(AWG 3/0/01C) / (1x95.00 mm ²)	22.6	0.890	788	657
111296	(AWG 4/0/01C) / (1x120.00 mm ²)	25.6	1.008	973	884

Specifications are subject to change without prior notice

Lutze Superflex® Tronic PUR, Unshielded

High Flexing Electronic Cable with UL/CSA/CE Approvals

halogen-free



Application

- Multi-conductor cable for robots, handling equipment, machine tools, C-tracks and applications with extremely rough operating conditions
- For the most demanding flexing applications such as C-tracks and linear flexing
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- PUR jacket and TPE conductor insulation for use in extremely harsh operating conditions
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- Dry and wet conditions
- UV resistant
- Silicone/Talc free

Technical Data

Voltage	300V UL AWM
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 10 x cable OD Fixed 6 x cable OD
Conductor marking	Color coded per DIN EN 50334 or DIN 47100
Isolation resistance	Min 20MΩ x km
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- TPE insulation
- Extremely oil resistant gray PUR jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 24 / 0.25 mm²					
117039	2x0.25	3.8	0.150	12	3
117040	3x0.25	4.0	0.157	14	5
117041	4x0.25	4.3	0.170	17	7
117042	5x0.25	4.7	0.185	19	8
117043	7x0.25	5.4	0.213	25	11
117044	10x0.25	6.2	0.244	33	16
117028	15x0.25	7.0	0.276	46	24
117046	18x0.25	7.5	0.295	53	29
117047	25x0.25	8.8	0.346	71	40
AWG 22 / 0.34 mm²					
117048	2x0.34	4.0	0.157	13	6
117049	3x0.34	4.2	0.165	16	7
117050	4x0.34	4.5	0.177	19	9
117051	5x0.34	4.9	0.193	23	11
117052	7x0.34	5.7	0.224	30	15
117053	10x0.34	6.6	0.260	40	20
117029	15x0.34	7.5	0.295	56	30
117055	18x0.34	7.9	0.311	64	38
117056	25x0.34	9.3	0.366	86	52

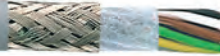
Specifications are subject to change without prior notice

Lutze Superflex® Tronic (C) PUR, Shielded

High Flexing Electronic Cable with UL/CSA/CE Approvals

halogen-free

LUTZE SUPERFLEX TRONIC (C) PUR



Application

- Multi-conductor cable for robots, handling equipment, machine tools, C-tracks and applications with extremely rough operating conditions
- For the most demanding flexing applications such as C-tracks and linear flexing
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- PUR jacket and TPE conductor insulation for use in extremely harsh operating conditions
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- Dry, wet and damp conditions
- UV resistant
- Silicone/Talc free

Technical Data

Voltage	300V UL AWM
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 12 x cable OD Fixed 6 x cable OD
Conductor marking	Color coded per DIN EN 50334 or DIN 47100
Isolation resistance	Min 20MΩ x km
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- TPE insulation
- Tinned copper braid shield
- Extremely oil resistant gray PUR jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 24 / 0.25 mm²					
117099	(2x0.25)	4.2	0.165	18	9
117100	(3x0.25)	4.4	0.173	20	11
117101	(4x0.25)	4.7	0.185	24	13
117102	(5x0.25)	5.1	0.201	27	15
117103	(7x0.25)	5.8	0.228	34	21
117104	(10x0.25)	6.6	0.260	43	28
117123	(15x0.25)	7.5	0.295	58	40
117106	(18x0.25)	7.9	0.311	65	43
117107	(25x0.25)	9.2	0.362	85	57
AWG 22 / 0.34 mm²					
117108	(2x0.34)	4.4	0.173	20	10
117109	(3x0.34)	4.6	0.181	23	13
117110	(4x0.34)	4.9	0.193	27	16
117111	(5x0.34)	5.3	0.207	31	19
117112	(7x0.34)	6.1	0.240	39	25
117113	(10x0.34)	7.0	0.276	50	34
117124	(15x0.34)	7.9	0.311	68	50
117115	(18x0.34)	8.3	0.327	77	54
117116	(25x0.34)	9.8	0.386	107	77

Specifications are subject to change without prior notice

1-800-447-2371



www.lutze.com

Lutze Superflex® Tronic (C) PUR TP, Shielded

High Flexing Electronic Cable with UL/CSA/CE Approvals

halogen-free



Application

- Multi-conductor cable for robots, handling equipment, machine tools, C-tracks and applications with extremely rough operating conditions
- For the most demanding flexing applications such as C-tracks and linear flexing
- Compatible with all major brand C-tracks

Characteristics

- Superfine stranding per Class 6 for continuous moving applications
- PUR jacket and TPE conductor insulation for use in extremely harsh operating conditions
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- Dry, wet and damp conditions
- UV resistant
- Non-wicking fillers
- Silicone/Talc free

Technical Data

Voltage	300V UL AWM
Temperature	Moving -25°C - +80°C Fixed -40°C - +80°C
Bending radius	Moving 12 x cable OD Fixed 6 x cable OD
Conductor marking	Color coded per DIN EN 50334 or DIN 47100 for twisted pairs
Isolation resistance	Min 20MΩ x km
Approvals	UL/CSA/CE UL VW-1 CSA FT1 IEC 60332-1 Halogen free per DIN EN 50264-1, EN 50267-2-1, EN 60684-2 Oil Res II RoHS

Construction

- Bare copper super finely stranded per DIN VDE 0295 Class 6 or IEC 60228 Class 6
- TPE insulation
- Overall tinned copper braid shield
- Extremely oil resistant gray PUR jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
AWG 24 / 0.25 mm²					
117170	(2x2x0.25) 2 TP AWG 24	6.3	0.248	38.9	15
117171	(3x2x0.25) 3 TP AWG 24	6.6	0.260	46.2	19
117172	(4x2x0.25) 4 TP AWG 24	6.8	0.268	50.9	23
117173	(5x2x0.25) 5 TP AWG 24	7.4	0.291	67.7	27
117177	(6x2x0.25) 6 TP AWG 24	8.1	0.319	84.4	32
117174	(8x2x0.25) 8 TP AWG 24	9.4	0.370	101.2	40
117175	(10x2x0.25) 10 TP AWG 24	10.5	0.413	121.9	53
117176	(12x2x0.25) 12 TP AWG 24	11.0	0.433	132.7	61

TP=Twisted Pair

Specifications are subject to change without prior notice

Lutze Superflex® BUS (C) PUR, Shielded

High Flexing Bus Cable with UL/CSA/CE Approvals

halogen-free



Application

- High flexing Bus and Network cable for Profibus, Devicenet and CAN Bus applications
- Designed for demanding C-track applications

Characteristics

- Superfine stranding for continuous moving applications
- PUR jacket for use in extremely harsh operating conditions
- Highest level of resistance against cooling fluids, greases and oils
- Abrasion and hydrolysis resistant, low water absorption
- UV resistant
- Silicone/Talc free

Technical Data

Temperature	Moving	-20°C - +80°C
	Fixed	-40°C - +80°C
Bending radius	Moving	12 x cable OD
	Fixed	6 x cable OD

Approvals	UL/CSA/CE
	UL VW-1
	CSA FT1
	IEC 60332-1
	Halogen free per DIN
	EN 50264-1, EN 50267-2-1
	EN 60684-2
	Oil Res II
RoHS	

Construction

- Flexible superfine wire stranding
- Polyethylene (PE) conductor insulation
- Tinned copper braid shield
- Extremely oil resistant PUR jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
----------	----------------------------------	------------------	------------------	-------------------	-------------------

Profibus

Impedance: 150 Ω ± 15%, Mutual capacitance: <30 pF/m

104265	(1x2x0.64 Ø) (1 pair AWG 24) RD,GN	8.0	0.315	37	16
104275	(3x0.75 + 1x2x0.64 Ø) (3C/AWG 19 + 1 pair AWG 24) 0.64: RD,GN 0.75: GN/YE; BU; BK;	9.8	0.386	97	44

Profibus FC (Insulation Displacement Connection)

Impedance: 150 Ω ± 15%, Mutual capacitance: <30 pF/m

104287	(1x2x0.64 Ø) (1 pair AWG 24) RD,GN	8.0	0.315	37	13
---------------	--	-----	-------	----	----

DeviceNet™

Impedance: 120 Ω ± 10%, Mutual capacitance: <40 pF/m

104289	((2x0.34) + (2x0.22)) ((1 pair AWG 22) + (1 pair AWG 24)) 0.22: BU,WH 0.34: RD,BK	6.8	0.268	57	19
104279	((2x1.5) + (2x0.75)) ((1 pair AWG 16) + (1 pair AWG 19)) 0.75: BU,WH 1.5: RD,BK	11.9	0.469	97	14

CAN-BUS

Impedance: 100-120 Ω, Mutual capacitance: <60 pF/m

104270	(2x2x0.25) (2 pair AWG 24) WH,BN; GN, YE	6.0	0.236	39	16
---------------	--	-----	-------	----	----

Specifications are subject to change without prior notice

Lutze Superflex® Ethernet Network Cable (C) PUR, Shielded

High Flexing Ethernet Network Cable with UL/CSA/CE Approvals

halogen-free



Application

- High flexing industrial field network cable for fast ETHERNET applications
- Designed for demanding C-track applications
- Compatible with all major brand C-tracks

Characteristics

- Shielded for optimal data integrity in industrial environments
- Silicone/Talc free

Technical Data

Impedance	100 Ω +/- 10% (1-100 MHz)
Loop Resistance	
AWG22/7	<110 Ω/km
AWG23/19	<130 Ω/km
AWG24/19	<155 Ω/km
AWG26/19	<280 Ω/km
Operating capacitance	< 50 pF/m
Nominal Voltage	250V
Test Voltage	1500V
Temperature	
Moving	-25°C - +80°C
Fixed	-40°C - +80°C
Bending radius	
Moving	12 x cable OD
Fixed	6 x cable OD
Approvals	UL/CSA AWM CE UL VW-1 CSA FT1 IEC 60332-1 Oil Res II RoHS

Construction

- Bare copper conductor per AWG
- Polyolefin insulation
- Tinned copper braid with >85% coverage
- Extremely oil resistant PUR jacket

Part No.	Description No. of conductors	OD - Ø ca. mm	OD - Ø inches	Weight Lbs/Mft	Copper Lbs/Mft
----------	----------------------------------	------------------	------------------	-------------------	-------------------

c us **DESINA RoHS**

CAT 5 100 MHz, SF/UTP, UL 300V AWM, Purple jacket Industrial Ethernet

104245	(2 pair AWG 24/19) STAR QUAD WH,BN; GN,YE	6.1	0.240	43.6	25
--------	---	-----	-------	------	----

c us **DESINA RoHS**

CAT 5 100 MHz, SF/UQP, UL 30V AWM, Green Jacket Industrial Ethernet, ProfiNet, EtherCAT, UL CMX 75°C

104303	(2x2xAWG22/7) StC WH,BU; YE,OG	6.1	0.256	40.9	21
--------	--------------------------------------	-----	-------	------	----

104304	(2x2xAWG23/19) StC WH,BU; YE,OG	6.6	0.269	50.3	25
--------	---------------------------------------	-----	-------	------	----

c us **DESINA RoHS**

CAT 5e 100 MHz, S/UTP, UL 300V AWM, Green jacket Industrial Ethernet, Ethernet IP

104337	(4 pair AWG 24/19) WH/BU,BU WH/OG,OG WH/GN,GN WH/BN,BN	7.8	0.307	57	29
--------	--	-----	-------	----	----

c us **DESINA RoHS**

CAT 6 250 MHz, SF/UTP, UL 300V AWM, Green jacket Cross core element for improved flexing, Gigabit Ethernet, UL CMX 75°C

104347	(4x2xAWG26/19) WH/BU,BU WH/OG,OG WH/GN,GN WH/BN,BN	7.8	0.307	35	22
--------	--	-----	-------	----	----

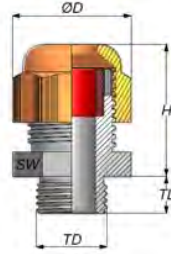
Specifications are subject to change without prior notice

Wire and Cable Management



Lutze TOP-T Fittings NPT

Plastic NPT



Characteristics:

- Integrated strain relief
- Wide sealing and clamping range
- Easy to install
- Temperature range -30°C - +80°C/
-22°F - +176°F
- Max temporary temperature
up to +150°C/+300°F
- Protection class IP68

Fitting Specifications:

Connecting thread	NPT
Material	Polyamide 6
Seal	Neoprene
Color	Black RAL 9005 Gray RAL 7001

Part No.	Thread	Clamping Range Ø inch	Clamping Range Ø mm	TL mm	D/SW mm	TD mm	H mm
BLACK							
FPNPT38B	NPT 3/8"	0.197-0.394	5-10	15	22	16.5	28
FPNPT12B	NPT 1/2"	0.394-0.551	10-14	15	27	20.7	31
FPNPT34B	NPT 3/4"	0.511-0.709	13-18	15	33	25.9	35
FPNPT10B	NPT 1"	0.709-0.984	18-25	18	42	32.4	40

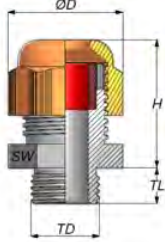
GRAY							
FPNPT38G	NPT 3/8"	0.197-0.394	5-10	15	22	16.5	28
FPNPT12G	NPT 1/2"	0.394-0.551	10-14	15	27	20.7	31
FPNPT34G	NPT 3/4"	0.511-0.709	13-18	15	33	25.9	35
FPNPT10G	NPT 1"	0.709-0.984	18-25	18	42	32.4	40

REDUCED CLAMPING RANGE							
FPNPT38B-R	NPT 3/8"	0.118-0.276	3-7	15	22	16.5	28
FPNPT12B-R	NPT 1/2"	0.276-0.472	7-12	15	27	20.7	31
FPNPT34B-R	NPT 3/4"	0.354-0.630	9-16	15	33	25.9	35
FPNPT10B-R	NPT 1"	0.472-0.787	12-20	18	42	32.4	40

Specifications are subject to change without prior notice

Lutze TOP-T Fittings PG

Plastic PG



Characteristics:

- Integrated strain relief
- Wide sealing and clamping range
- Easy to install
- Temperature range -30°C - +80°C/
-22°F - +176°F
- Max temporary temperature
up to +150°C/+300°F
- Protection class IP68

Fitting Specifications:

Connecting thread PG as per DIN 40430

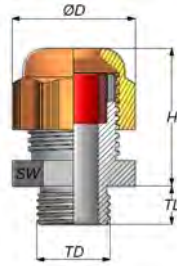
Material Polyamide 6
Seal Neoprene
Color Black RAL 9005
Gray RAL 7001

Part No.	Thread	Clamping Range Ø inch	Clamping Range Ø mm	TL mm	D/SW mm	TD mm	H mm
BLACK							
FPPG7B	PG 7	0.118-0.256	3-6.5	8	15	13	22
FPPG9B	PG 9	0.157-0.315	4-8	8	19	16	25
FPPG11B	PG 11	0.197-0.394	5-10	8	22	19	28
FPPG13B	PG 13.5	0.236-0.472	6-12	9	24	21	29
FPPG16B	PG 16	0.394-0.551	10-14	10	27	23	31
FPPG21B	PG 21	0.512-0.709	13-18	11	33	29	35
FPPG29B	PG 29	0.709-0.984	18-25	11	42	37	40
FPPG36B	PG 36	0.866-1.260	22-32	13	53	47	49
FPPG42B	PG 42	1.181-1.496	30-38	13	60	54	49
FPPG48B	PG 48	1.339-1.732	34-44	14	65	59	49
GRAY							
FPPG7G	PG 7	0.118-0.256	3-6.5	8	15	13	22
FPPG9G	PG 9	0.157-0.315	4-8	8	19	16	25
FPPG11G	PG 11	0.197-0.394	5-10	8	22	19	28
FPPG13G	PG 13.5	0.236-0.472	6-12	9	24	21	29
FPPG16G	PG 16	0.394-0.551	10-14	10	27	23	31
FPPG21G	PG 21	0.512-0.709	13-18	11	33	29	35
FPPG29G	PG 29	0.709-0.984	18-25	11	42	37	40
FPPG36G	PG 36	0.866-1.260	22-32	13	53	47	49
FPPG42G	PG 42	1.181-1.496	30-38	13	60	54	49
FPPG48G	PG 48	1.339-1.732	34-44	14	65	59	49
REDUCED CLAMPING RANGE							
FPPG7G-R	PG 7	0.079-0.197	2-5	8	15	13	22
FPPG9G-R	PG 9	0.079-0.236	2-6	8	19	16	25
FPPG11G-R	PG 11	0.118-0.276	3-7	8	22	19	28
FPPG13G-R	PG 13.5	0.197-0.354	5-9	9	24	21	29
FPPG16G-R	PG 16	0.276-0.472	7-12	10	27	23	31
FPPG21G-R	PG 21	0.354-0.630	9-16	11	33	29	35
FPPG29G-R	PG 29	0.472-0.787	12-20	11	42	37	40
FPPG36G-R	PG 36	0.787-1.024	20-26	13	53	47	49

Specifications are subject to change without prior notice

Lutze TOP-T Fittings Metric

Plastic Metric



Characteristics:

- Integrated strain relief
- Wide sealing and clamping range
- Easy to install
- Manufactured according to EN 50262 requirements
- Temperature range -30°C - +80°C/
-22°F - +176°F
- Max temporary temperature up to +150°C/+300°F
- Protection class IP68

Fitting Specifications:

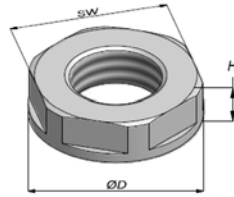
Connecting thread	Metric as per EN 60423
Material	Polyamide 6
Seal	Neoprene
Color	Black RAL 9005 Gray RAL 7001

Part No.	Thread	Clamping Range Ø inch	Clamping Range Ø mm	TL mm	D/SW mm	TD mm	H mm
BLACK							
FPM12B	M12x1.5	0.118-0.256	3-6.5	8	15	12	22
FPM16B	M16x1.5	0.197-0.394	5-10	10	22	16	28
FPM20B	M20x1.5	0.315-0.551	10-14	10	27	20	31
FPM25B	M25x1.5	0.512-0.709	13-18	10	33	25	35
FPM32B	M32x1.5	0.709-0.984	18-25	18	42	32	40
FPM40B	M40x1.5	0.866-1.260	22-32	18	53	40	49
FPM50B	M50x1.5	1.181-1.496	30-38	18	60	50	49
FPM63B	M63x1.5	1.339-1.732	34-44	18	65	63	49
GRAY							
FPM12G	M12x1.5	0.118-0.256	3-6.5	8	15	12	22
FPM16G	M16x1.5	0.197-0.394	5-10	10	22	16	28
FPM20G	M20x1.5	0.315-0.551	10-14	10	27	20	31
FPM25G	M25x1.5	0.512-0.709	13-18	10	33	25	35
FPM32G	M32x1.5	0.709-0.984	18-25	18	42	32	40
FPM40G	M40x1.5	0.866-1.260	22-32	18	53	40	49
FPM50G	M50x1.5	1.181-1.496	30-38	18	60	50	49
FPM63G	M63x1.5	1.339-1.732	34-44	18	65	63	49
REDUCED CLAMPING RANGE							
FPM12G-R	M12x1.5	0.079-0.197	2-5	8	15	12	22
FPM16G-R	M16x1.5	0.118-0.276	3-7	10	22	16	28
FPM20G-R	M20x1.5	0.276-0.472	7-12	10	27	20	31
FPM25G-R	M25x1.5	0.354-0.630	9-16	10	33	25	35
FPM32G-R	M32x1.5	0.472-0.787	12-20	18	42	32	40
FPM40G-R	M40x1.5	0.787-1.024	20-26	18	53	40	49
FPM50G-R	M50x1.5	0.984-1.220	25-31	18	60	50	49
FPM63G-R	M63x1.5	1.142-1.378	29-35	18	65	63	49

Specifications are subject to change without prior notice

Lutze TOP-T Locknuts Plastic

Plastic NPT, PG and Metric



Characteristics:

- Hexagonal locknut for secure tightening of plastic cable fittings and accessories
- Easy to install
- Temperature range -30°C - +80°C/
-22°F - +176°F
- Max temporary temperature up to +150°C/+300°F

Locknut Specifications:

Material	Polyamide 6, 30% glass fiber reinforced
Color	Black RAL 9005 Gray RAL 7001

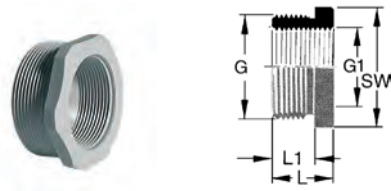
Please note the following specification change:
Locknuts with Flange design starting Spring 2010.
Flange is imprinted with locknut size for easy identification.

Part No.	Thread	ØD mm	SW mm	H mm
NPT BLACK				
LPNPT38B	NPT 3/8"	25	22	5
LPNPT12B	NPT 1/2"	30.5	27	5
LPNPT34B	NPT 3/4"	37.5	33	5
LPNPT10B	NPT 1"	46.5	47	6
NPT GRAY				
LPNPT38G	NPT 3/8"	25	22	5
LPNPT12G	NPT 1/2"	30.5	27	5
LPNPT34G	NPT 3/4"	37.5	33	5
LPNPT10G	NPT 1"	46.5	47	6
PG BLACK				
LPPG7B	PG 7	21	19	5
LPPG9B	PG 9	24	22	5
LPPG11B	PG 11	26	24	5
LPPG13B	PG 13.5	29	27	6
LPPG16B	PG 16	33	30	6
LPPG21B	PG 21	39	36	7
LPPG29B	PG 29	50	46	7
LPPG36B	PG 36	66	60	8
LPPG42B	PG 42	73	65	8
LPPG48B	PG 48	78	70	8
PG GRAY				
LPPG7G	PG 7	21	19	5
LPPG9G	PG 9	24	22	5
LPPG11G	PG 11	26	24	5
LPPG13G	PG 13.5	29	27	6
LPPG16G	PG 16	33	30	6
LPPG21G	PG 21	39	36	7
LPPG29G	PG 29	50	46	7
LPPG36G	PG 36	66	60	8
LPPG42G	PG 42	73	65	8
LPPG48G	PG 48	78	70	8
METRIC BLACK				
LPM12B	M12x1.5	19.5	18	5
LPM16B	M16x1.5	24.2	22	5
LPM20B	M20x1.5	28.6	26	6
LPM25B	M25x1.5	35.0	32	6
LPM32B	M32x1.5	46.1	41	7
LPM40B	M40x1.5	55.3	50	7
LPM50B	M50x1.5	66.1	60	8
LPM63B	M63x1.5	82.5	75	8
METRIC GRAY				
LPM12G	M12x1.5	19.5	18	5
LPM16G	M16x1.5	24.2	22	5
LPM20G	M20x1.5	28.6	26	6
LPM25G	M25x1.5	35.0	32	6
LPM32G	M32x1.5	46.1	41	7
LPM40G	M40x1.5	55.3	50	7
LPM50G	M50x1.5	66.1	60	8
LPM63G	M63x1.5	82.5	75	8

Specifications are subject to change without prior notice

Lutze TOP-T Fittings Reducer and Enlarger

Plastic Metric Reducer and PG Reducer



Metric Reducer Characteristics:

- Reduction of threaded or clearance holes to smaller thread size
- Temperature range -30°C - +100°C / -22°F - +212°F
- Material Polyamide PA6 GF30
- Internal/External thread Metric as per EN 60423
- Color Gray RAL 7035

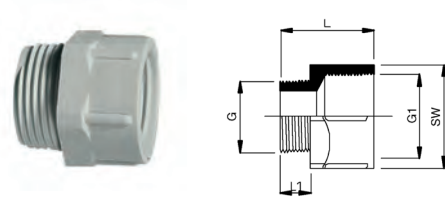
PG Reducer Characteristics:

- Reduction of threaded or clearance holes to smaller thread size
- Temperature range -30°C - +100°C / -22°F - +212°F
- Material Polyamide PA6 GF30
- Internal/External thread PG as per DIN 40430
- Color Gray RAL 7035

PG Enlarger Characteristics:

- Enlarger of threaded or clearance holes to larger thread size
- Fiber glass reinforced
- Temperature range -30°C - +100°C / -22°F - +212°F
- Material Polyamide PA6 GF30
- Internal/External thread PG as per DIN 40430
- Color Gray RAL 7035

Plastic PG Enlarger



Part No.	Thread G	Thread G1	SW mm	L mm	L1 mm
----------	----------	-----------	-------	------	-------

METRIC REDUCER

600550	M20x1.5	M12x1.5	24	12	8
600551	M20x1.5	M16x1.5	24	12	8
600553	M25x1.5	M16x1.5	32	14	8
600554	M25x1.5	M20x1.5	32	14	8
600557	M32x1.5	M20x1.5	36	16	10
600558	M32x1.5	M25x1.5	36	16	10
600561	M40x1.5	M25x1.5	46	16	10
600562	M40x1.5	M32x1.5	46	16	10
600565	M50x1.5	M32x1.5	55	18	12
600566	M50x1.5	M40x1.5	55	18	12

PG REDUCER

600607	PG 13.5	PG 9	24	9	6
600604	PG 21	PG 16	32	16	11
600605	PG 29	PG 21	39	18	12
600606	PG 36	PG 29	50	24	18

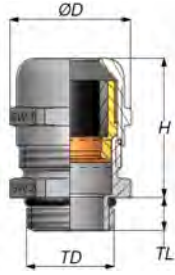
PG ENLARGER

600351	PG 7	PG 9	19	20.5	8
600352	PG 9	PG 11	22	22.5	8
600353	PG 11	PG 13.5	24	24	8
600355	PG 13.5	PG 16	27	27	9
600356	PG 16	PG 21	33	29	9
600357	PG 21	PG 29	43	33	10
600358	PG 29	PG 36	50	38	10
600359	PG 36	PG 42	60	40	12.5

Specifications are subject to change without prior notice

Lutze TOP-T Fittings NPT

Metal NPT



Characteristics:

- Integrated strain relief
- Anti-twist design
- Wide sealing and clamping range
- Easy to install
- Temperature range -40°C - +100°C / -40°F - +212°F
- Protection class IP68

Part No.	Thread	Clamping Range Ø inch	Clamping Range Ø mm	TL mm	SW1 mm	SW2 mm	H mm
----------	--------	-----------------------	---------------------	-------	--------	--------	------

NPT							
FMNPT38	NPT 3/8"	0.157-0.315	4-8	11.5	20	20	23
FMNPT12	NPT 1/2"	0.236-0.472	6-12	13	22	22	25.5
FMNPT34	NPT 3/4"	0.512-0.709	13-18	13	30	30	34
FMNPT10	NPT 1"	0.709-0.984	18-25	13	40	43	43

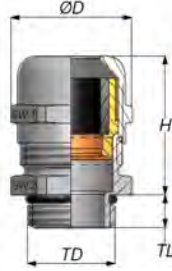
Fitting Specifications:

Design allows for shield termination	
Connecting thread	NPT
Material	Brass, nickel plated
Clamping insert	Polyamide 6
Sealing ring	Neoprene
O-ring	NBR

Specifications are subject to change without prior notice

Lutze TOP-T Fittings PG

Metal PG



Characteristics:

- Integrated strain relief
- Anti-twist design
- Wide sealing and clamping range
- Easy to install
- Temperature range

-40°C-+100°C

-40°F-+212°F

- Protection class

IP68

Fitting Specifications:

Connecting thread

PG as per DIN 40430

Material

Brass, nickel plated

Clamping insert

Polyamide 6

Sealing ring

Neoprene

O-ring

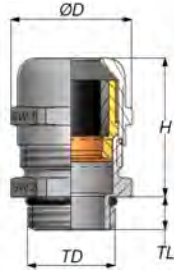
NBR

Part No.	Thread	Clamping Range Ø inch	Clamping Range Ø mm	TL mm	SW1 mm	SW2 mm	H mm
PG							
FMPG7	PG 7	0.118-0.256	3-6.5	6	14	14	21.8
FMPG9	PG 9	0.157-0.315	4-8	6	17	17	22.6
FMPG11	PG 11	0.197-0.394	5-10	6	20	20	25.3
FMPG13	PG 13.5	0.236-0.472	6-12	6.5	22	22	24.1
FMPG16	PG 16	0.394-0.551	10-14	6.5	24	24	27.5
FMPG21	PG 21	0.512-0.709	13-18	7.2	30	30	31.2
FMPG29	PG 29	0.709-0.984	18-25	8	40	40	39.3
FMPG36	PG 36	0.866-1.260	22-32	9	50	50	47.2
FMPG42	PG 42	1.181-1.496	30-38	12	58	58	47.7
FMPG48	PG 48	1.339-1.732	34-44	14	64	64	52.0
LONG THREAD							
FMPG7-L	PG 7	0.118-0.256	3-6.5	10	14	14	21.8
FMPG9-L	PG 9	0.157-0.315	4-8	10	17	17	22.6
FMPG11-L	PG 11	0.197-0.394	5-10	10	20	20	25.3
FMPG13-L	PG 13.5	0.236-0.472	6-12	10	22	22	24.1
FMPG16-L	PG 16	0.394-0.551	10-14	10	24	24	27.5
FMPG21-L	PG 21	0.512-0.709	13-18	12	30	30	31.2
FMPG29-L	PG 29	0.709-0.984	18-25	12	40	40	39.3

Specifications are subject to change without prior notice

Lutze TOP-T Fittings Metric

Metal Metric



Characteristics:

- Integrated strain relief
- Anti-twist design
- Wide sealing and clamping range
- Easy to install
- Temperature range -40°C - +100°C / -40°F - +212°F
- Protection class IP68

Fitting Specifications:

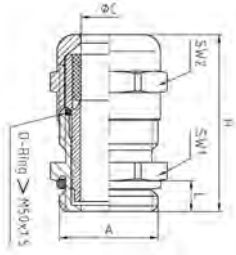
Connecting thread	Metric as per EN 60423
Material	Brass, nickel plated
Clamping insert	Polyamide 6
Sealing ring	Neoprene
O-ring	NBR

Part No.	Thread	Clamping Range Ø inch	Clamping Range Ø C	TL mm	SW1 mm	SW2 mm	H mm
METRIC							
FMM12	M12x1.5	0.118-0.256	3-6.5	6	14	14	21.5
FMM16	M16x1.5	0.157-0.315	4-8	7	17	18	23
FMM20	M20x1.5	0.236-0.472	6-12	8	22	22	24.3
FMM25	M25x1.5	0.394-0.551	10-14	8	24	27	27.6
FMM32	M32x1.5	0.512-0.709	13-18	9	30	34	31.2
FMM40	M40x1.5	0.709-0.984	18-25	9	40	43	38.5
FMM50	M50x1.5	0.866-1.260	22-32	9	50	55	47.3
FMM63	M63x1.5	1.339-1.732	34-44	14	64	68	50.3
LONG THREAD							
FMM12-L	M12x1.5	0.118-0.256	3-6.5	12	14	14	21.5
FMM16-L	M16x1.5	0.157-0.315	4-8	12	17	18	23
FMM20-L	M20x1.5	0.236-0.472	6-12	12	22	22	24.3
FMM25-L	M25x1.5	0.394-0.551	10-14	12	24	27	27.6
FMM32-L	M32x1.5	0.512-0.709	13-18	15	30	34	31.2
FMM40-L	M40x1.5	0.709-0.984	18-25	15	40	43	38.5
FMM50-L	M50x1.5	0.866-1.260	22-32	15	50	55	47.3
FMM63-L	M63x1.5	1.339-1.732	34-44	18	64	68	50.3

Specifications are subject to change without prior notice

Lutze TOP-T Fittings Metric EMC

Metal Metric EMC (Electro Magnetic Compatibility)



Characteristics:

- For shielded cable
- Integrated strain relief
- Anti-twist design
- Wide sealing and clamping range
- Easy to install
- Temperature range -20°C - +100°C / +14°F - +212°F
- Protection class IP68

Fitting Specifications:

Connecting thread	Metric as per EN 60423
Dome nut	Brass CuZn39Pb3, nickel plated
Clamping insert	Polyamide PA6 V-2
Sealing ring	Polychloroprene-Nitrile rubber CR/NBR
Gland body	Brass CuZn39Pb3, nickel plated
O-ring	NBR

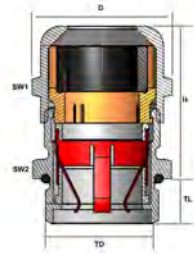
Part No.	Thread A	Clamping Range Ø inch	Clamping Range Ø mm	L mm	SW1 mm	SW2 mm	H mm
EMC							
FMM12-C	M12x1.5	0.118-0.236	3-6	5	14	14	25
FMM16-C	M16x1.5	0.197-0.354	5-9	5	17	17	30
FMM20-C	M20x1.5	0.354-0.512	9-13	6	22	22	33.5
FMM25-C	M25x1.5	0.433-0.630	11-16	7	27	27	36.5
FMM32-C	M32x1.5	0.551-0.827	14-21	8	34	34	38
FMM40-C	M40x1.5	0.748-1.063	19-27	8	43	43	41
FMM50-C	M50x1.5	0.945-1.378	24-35	9	55	55	49.5



Specifications are subject to change without prior notice

Lutze TOP-T Fittings EMC2 Metric and NPT

Metal EMC2 (Electro Magnetic Compatibility), Quick Installation



Characteristics:

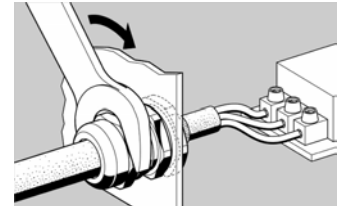
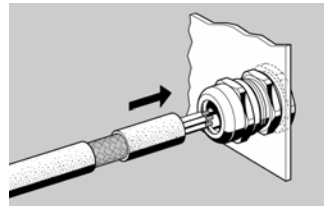
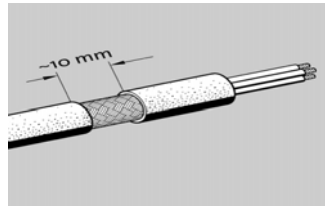
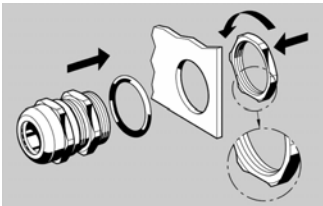
- Adapts to different size cable shields
- 360° shield termination
- Integrated strain relief
- Wide sealing and clamping range
- Fast and easy to install
- Temperature range
-40°C - +100°C /
-40°F - +212°F
- Protection class
IP68

Fitting Specifications:

Connecting thread	Metric as per EN 60423
Material	Brass, nickel plated
Clamping insert	Polyamide 6
Sealing ring	Neoprene
O-ring	NBR

Part No.	Thread	Clamping Range Ø Inches	Clamping Range Ø mm	TL mm	SW1 mm	SW2 mm	H mm
METRIC							
FMM12-C2	M12x1.5	0.118-0.256	3-6.5	6	14	14	21.5
FMM16-C2	M16x1.5	0.197-0.394	5-10	7	20	20	25.3
FMM20-C2	M20x1.5	0.236-0.472	6-12	8	22	22	26.5
FMM25-C2	M25x1.5	0.433-0.669	11-17	8	27	27	32.7
FMM32-C2	M32x1.5	0.590-0.827	15-21	8	34	34	36.3
FMM40-C2	M40x1.5	0.748-1.102	19-28	9	43	43	44.5
FMM50-C2	M50x1.5	1.063-1.496	27-38	9	58	58	51.5
FMM63-C2	M63x1.5	1.339-1.732	34-44	14	64	68	52.9
NPT							
FMNPT38-C2	NPT 3/8"	0.197-0.394	5-10	11.5	20	20	40.5
FMNPT12-C2	NPT 1/2"	0.236-0.472	6-12	13	22	22	38.3
FMNPT34-C2	NPT 3/4"	0.512-0.709	13-18	13	30	30	47.4
FMNPT10-C2	NPT 1"	0.709-0.984	18-25	13	40	40	55.2

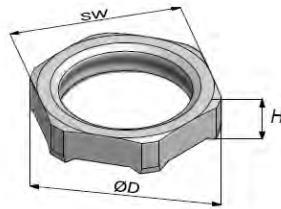
Long thread EMC2 fittings available through special order. Please contact us.



Specifications are subject to change without prior notice

Lutze TOP-T Locknuts Metal

Metal PG, Metric and EMC Metric



Characteristics:

- Hexagonal locknut for secure tightening of cable fittings and accessories
- Temperature range up to +200°C/+392°F

Locknut Specifications:

Material Brass, nickel plated

Due to tapered NPT thread, we recommend using plastic locknuts with metal NPT fittings if locknut is required.

EMC Cutting Teeth Metric:

- For secure tightening of EMC cable fittings
- To cut through paint layers or powder coatings ensuring optimal contact
- Increased vibration resistance

Part No.	Thread	Ø D mm	SW mm	H mm
PG				
LMPG7	PG 7	16.5	15	2.8
LMPG9	PG 9	19.8	18	2.8
LMPG11	PG 11	23.1	21	3
LMPG13	PG 13.5	25.3	23	3
LMPG16	PG 16	28.6	26	3
LMPG21	PG 21	35.2	32	3.5
LMPG29	PG 29	45.1	41	4.0
LMPG36	PG 36	56.1	51	5.0
LMPG42	PG 42	66.0	60	5.0
LMPG48	PG 48	70.4	64	5.5

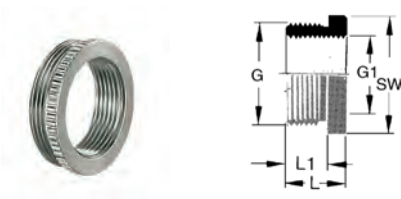
METRIC				
LMM12	M12x1.5	16.5	15	2.8
LMM16	M16x1.5	20.9	19	3.0
LMM20	M20x1.5	26.4	24	3.5
LMM25	M25x1.5	33	30	4.0
LMM32	M32x1.5	39.6	36	5.0
LMM40	M40x1.5	50.6	46	5.0
LMM50	M50x1.5	66	60	5.0
LMM63	M63x1.5	77	70	6.0

EMC - CUTTING TEETH METRIC				
600460	M12x1.5	16.5	15	4.5
600461	M16x1.5	20.9	19	4.5
600462	M20x1.5	26.4	24	5.5
600463	M25x1.5	33	30	5.5
600464	M32x1.5	39.7	36	5.5
600465	M40x1.5	50.6	46	6.0
600466	M50x1.5	66	60	6.0

Specifications are subject to change without prior notice

Lutze TOP-T Fittings Reducer

Metal PG and Metric Reducer



PG Reducer Characteristics:

- Reduction of threaded or clearance holes to smaller thread size
- Temperature range -30°C - +100°C / -22°F - +212°F
- Reduction Brass, nickel plated
- Internal/External thread PG as per DIN 40430

Metric Reducer Characteristics:

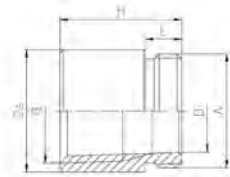
- Reduction of threaded or clearance holes to smaller thread size
- Temperature range -30°C - +100°C / -22°F - +212°F
- Reduction Brass, nickel plated
- Internal/External thread Metric as per EN 60423

Part No.	Thread G	Thread G1	SW mm	L mm	L1 mm
PG					
600400	PG 9	PG 7	17	8.5	6
600411	PG 11	PG 7	20	8.5	6
600401	PG 11	PG 9	20	8.5	6
600408	PG 13.5	PG 9	22	9	6.5
600402	PG 13.5	PG 11	22	9	6.5
600409	PG 16	PG 9	24	9.5	6.5
600410	PG 16	PG 11	24	9.5	6.5
600403	PG 16	PG 13.5	24	9.5	6.5
600413	PG 21	PG 11	30	10	7
600414	PG 21	PG 13.5	30	10	7
600404	PG 21	PG 16	30	10	7
600407	PG 29	PG 16	39	11.5	8
600405	PG 29	PG 21	39	11.5	8
600412	PG 36	PG 21	50	12.5	9
600406	PG 36	PG 29	50	12.5	9
600416	PG 42	PG 36	57	14	10
METRIC					
600220	M16x1.5	M12x1.5	18	8.5	6.0
600221	M20x1.5	M12x1.5	24	9	6.5
600222	M20x1.5	M16x1.5	24	9	6.5
600223	M25x1.5	M16x1.5	28	10	7
600224	M25x1.5	M20x1.5	28	10	7
600225	M32x1.5	M20x1.5	34	11.5	8
600226	M32x1.5	M25x1.5	34	11.5	8
600227	M40x1.5	M25x1.5	45	11.5	8
600228	M40x1.5	M32x1.5	45	11.5	8
600229	M50x1.5	M32x1.5	55	14	10
600230	M50x1.5	M40x1.5	55	14	10

Specifications are subject to change without prior notice

Lutze TOP-T Fittings Adapter

Metric to NPT Adapters



Adapter METRIC to NPT Characteristics:

- Adapter from metric to NPT thread
- Temperature range up to +200°C/ +392°F
- Adapter Brass CuZn39Pb3, nickel-plated
- External thread Metric as per EN 60423
- Internal thread NPT

Part No.	Thread A	Thread B	L mm	H mm	Da mm	Di mm
METRIC TO NPT						
AMM16-12	M16x1.5	NPT 1/2"	6.5	25	24	11
AMM20-12	M20x1.5	NPT 1/2"	6.5	25	24	15
AMM25-34	M25x1.5	NPT 3/4"	7	28	30	18
AMM32-34	M32x1.5	NPT 3/4"	8	26	37	23
AMM32-10	M32x1.5	NPT 1"	8	33	38	27

Specifications are subject to change without prior notice

Lutze TOP-T Fittings Accessories

Multihole Insert TPE PG, Metric, NPT



Characteristics:

- Multiple hole insert for two or more cables in one fitting
- Replaces the existing rubber insert to offer multiple hole installation
- Suitable for plastic and metal fittings
- Solid inserts can be drilled to suit any application
- Minimum quantity 100 pcs/package

Insert Specifications:

Material TPE

Part No.	Fits Size PG	Fits Size Metric	Fits Size NPT	Outer- Ø mm	Number of Cables x Ø mm
600626	PG 9	M16 (metal only)		10	2 x 3.0
600627	PG 9	M16 (metal only)		10	4 x 3.0
600541	PG 9	M16 (metal only)		10	0 x 0.0
600628	PG 11	M16 (plastic only)	3/8"	13	2 x 4.0
600629	PG 11	M16 (plastic only)	3/8"	13	2 x 4.5
600635	PG 11	M16 (plastic only)	3/8"	13	3 x 4.0
600636	PG 11	M16 (plastic only)	3/8"	13	3 x 5.0
600542	PG 11	M16 (plastic only)	3/8"	13	0 x 0.0
600638	PG 13.5	M20		15	2 x 4.5
600639	PG 13.5	M20		15	2 x 5.0
600640	PG 13.5	M20		15	2 x 6.0
600637	PG 13.5	M20		15	3 x 4.0
600630	PG 13.5	M20		15	3 x 5.0
600543	PG 13.5	M20		15	0 x 0.0
600641	PG 16		1/2"	17	2 x 4.0
600644	PG 16		1/2"	17	2 x 6.0
600631	PG 16		1/2"	17	3 x 4.0
600643	PG 16		1/2"	17	3 x 5.0
600646	PG 16		1/2"	17	4 x 6.0
600633	PG 16		1/2"	17	5 x 4.0
600544	PG 16		1/2"	17	0 x 0.0
600645	PG 16		1/2"	17	3 x 6.0
600647	PG 16		1/2"	17	3 x 6.5
600642	PG 16		1/2"	17	4 x 4.0
600632	PG 16		1/2"	17	4 x 5.0
600648	PG 21	M25	3/4"	22	2 x 7.0
600651	PG 21	M25	3/4"	22	2 x 8.0
600653	PG 21	M25	3/4"	22	2 x 9.0
600649	PG 21	M25	3/4"	22	3 x 7.0
600652	PG 21	M25	3/4"	22	3 x 8.0
600634	PG 21	M25	3/4"	22	4 x 7.0
600545	PG 21	M25	3/4"	22	0 x 0.0
600656	PG 29	M32	1"	29.5	5 x 8.5
600654	PG 29	M32	1"	29.5	6 x 5.0
600655	PG 29	M32	1"	29.5	8 x 5.0
600546	PG 29	M32	1"	29.5	0 x 0.0

Specifications are subject to change without prior notice

EMC rails with shield and strain relief options within the control cabinet



EMC Rail

Characteristics:

- Material Formed sheet metal
- Storage Temperature -30°C - +90°C, -22°F - +194°F
- Operational Temperature -5°C - +80°C, +23°F - +176°F

Mounting Bracket

Characteristics:

- 346814 Standard M5 thread
- 346860 Standard M8 thread

Shield Clamp

Characteristics:

- Material Sheet steel
- Temperature range 0°C - +60°C, +32°F - +140°F

Strain Relief

Characteristics:

- Fits rails 346812, 346813
- Material Galvanized Steel
- Hexagon screw Slotted
- Bottom clip use is optional

Metal Tie Wrap

Characteristics:

Stainless Steel

Part No.	EMC Rail Type	Dimensions WxHxL in mm	No. of shield points	Weight in grams
346813	EMVS 04-55813	15x32x1,155	55	466
346812	EMVS 03-46812	21.5x75x1,173	46	1,169

Part No.	Mounting bracket type	Dimensions WxHxL in mm	Suitable for Rail	Weight in grams
346814	HW-EMVS 04	29.8x14x24	346813	8
346860	HW-EMVS 03	18x80x65	346812	98

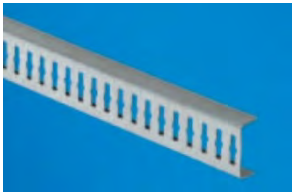
Part No.	Shield Clamp Type	Cable Clamping Range mm	Length in mm	Weight in grams
330089	EMVSK 12	0-12	36	2.5
330071	EMVFSK1	12 - 20	42	3
330072	EMVFSK2	20 - 30	55	5
330073	EMVFSK3	30 - 50	74	7

Part No.	Strain Relief Type	Cable Clamping Range mm	Thread	Weight in grams
331000	KS0	8 - 12	M6	30
331001	KS1	12 - 16	M6	32
331002	KS2	16 - 22	M6	35
331003	KS3	34 - 40	M6	68
331004	KS4	52 - 58	M8	60

Part No.	Metal Tie Wrap Type	Length mm	Material	Weight in grams
330060	KSE	250	Stainless Steel	30

Lutze EMC Cabinet Accessories

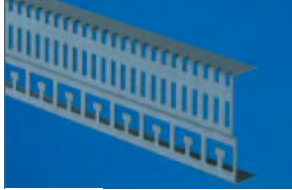
Assembly of EMC rails with shield termination and strain relief options



346813



346814



346812



346860

System advantages at a glance:

- Provides shield termination and strain relief within the control cabinet
- Easy to install
- Zip ties can be used with both rails if desired

1. Choose EMC rail based on application requirements.

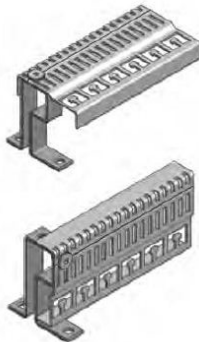
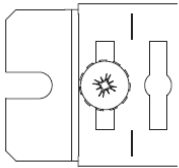
Lutze EMC rails can be used in any control cabinet either with traditional set up or together with Lutze LSC-Wiring system.

Determine application requirements:

- EMC shielding required only, choose narrower rail 346813
- For both EMC shielding and strain relief needs, choose wider rail 346812
- Cut rail to desired length to fit your cabinet

2. Choose appropriate brackets to install the rail inside the cabinet.

- Use mounting brackets 346814 to secure rail 346813. Uses standard M5 bolts.
- Use mounting brackets 346860 to secure rail 346812. Rail can be mounted into the cabinet in two different ways: see pictures to the left. Mounting holes, 8.5 mm, to be made by the user.



3. Choose appropriate shield clamps.

- Determine the desired shielding clamp

4. Select optional strain relief if required in the application.

- Rail 346813 provides shield termination or strain relief
- Rail 346812 provides combined shield termination and strain relief



330089



330071 - 330073



331000 - 331004

Modular Strain Relief System, with plastic or aluminum frame for cable assemblies



Characteristics:

- Frame material
- Protection class

Polished Aluminum or Polyamide 66 (GF30)
IP65

Small (VK) Insert

Characteristics:

- Material
- Temperature range
- Resistance

TPE
-40°C - +135°C,
-40°F - +275°F
UV, ozone, oils and fuels,
acids and dyes, solvents
and salt water

Large (VG) Insert

Characteristics:

- Material
- Temperature range
- Resistance

TPE
-40 - +135°C,
-40°F - +275°F
UV, ozone, oils and fuels,
acids and dyes, solvents
and salt water

Blanking Plug

Characteristics:

- Material

PA6 (GF15)
Gray

Part No.	Frame Type	Dimensions WxHxD in mm	No. of Small VK Inserts	No. of Large VG Inserts
PLASTIC				
606050	KKLR1	136 x 71 x 30	4	2
606051	KKLR2	164 x 71 x 30	6	3
ALUMINUM				
606001	AKLR1	108 x 68 x 30	4	2
606002	AKLR2	148 x 68 x 30	6	3
606004	AKLR4	148 x 108 x 30	12	6
606005	AKLR5	188 x 78 x 30	8	4
606007	AKLR7	188 x 118 x 30	16	8

Part No.	Type Small VK	Clamping Range mm	No of Holes
606150	VK0	SOLID	0
606151	VK4	4 – 4.5	14
606152	VK5	4.5 – 5.5	8
606153	VK6	5.5 – 6.5	8
606154	VK7	6.5 – 7.5	5
606155	VK8	7.5 – 8.5	5
606156	VK9	8.5 – 9.5	3
606157	VK10	9.5 – 10.5	3
606158	VK12	10.5 – 12.5	2
606159	VK14	12.5 – 14.5	2
606160	VK16	14.5 – 16.5	2

Part No.	Type Large VG	Clamping Range mm	No of Holes
606200	VG0	SOLID	0
606201	VG18	16.5 – 18.5	2
606202	VG20	18.5 – 20.5	1
606203	VG22	20.5 – 22.5	1
606204	VG24	22.5 – 24.5	1
606205	VG26	24.5 – 26.5	1
606206	VG28	26.5 – 28.5	1
606207	VG30	28.5 – 30.5	1
606208	VG32	30.5 – 32.5	1
606209	VG34	32.5 – 34.5	1

Part No.	Fits Insert Part No.	Type	Outer Dia. mm	Length mm
606250	606151	BL4	4	30
606251	606152	BL5	5	30
606252	606153	BL6	6	30
606253	606154	BL7	7	30
606254	606155	BL8	8	30
606255	606156	BL9	9	30
606256	606157	BL10	10	30
606257	606158	BL12	12	30
606258	606159	BL14	14	30
606259	606160	BL16	16	30
606260	606201	BL18	18	30

Specifications are subject to change without prior notice

Lutze Cablefix Vario

Assembly of Modular Strain Relief System



1. Choose aluminum or plastic frame.

The Cablefix Vario features outstanding material characteristics for harsh industrial environments and a high sealing protection of IP65. Every frame ships with an included drill pattern for proper mounting to the cabinet. The plastic frames are made of reinforced polyamide 66 with brass support. The aluminum version is made entirely of solid polished aluminum. Cablefix Vario offers strain relief options for cable ranges from 4.5 to 34.5 mm in diameter. The versatile system is ideal for installations and retrofitting, and offers proper strain relief for already connectorized cables. This is a great advantage over conventional solutions with standard cable fittings.



2. Choose appropriate inserts for the selected frame.

Example:

606050 can hold either

- 4 inserts type VK or
- 2 inserts type VG
- 2 VK inserts replace 1 VG insert

VK small	VK small	VG large	VG large	VG large	VK small
VK small	VK small				VK small



- The tongue and groove design makes combining different inserts quick and easy.
- The slotted design allows easy installation by sliding the assembled cables in from the side.



3. Select appropriately sized blanking plugs for unused holes.

Once all unused holes are plugged, the system provides a protection rating IP65. The rubber components do not require the use of grease, which is advantageous over other similar systems.

The advantages at a glance:

- Minimum space requirement
- Simple insertion of rubber inserts due to tongue and groove design
- Very versatile
- Allows future expansion
- Ideal for retrofitting of existing cabinets

Specifications are subject to change without prior notice

Lutze Fittings Cablefix

Cablefix



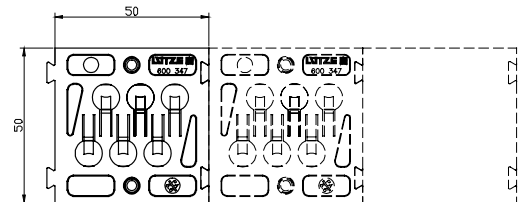
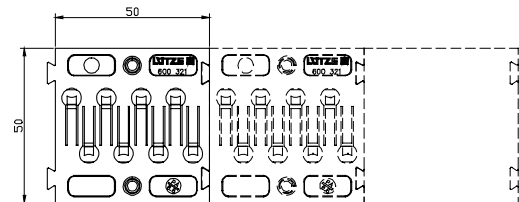
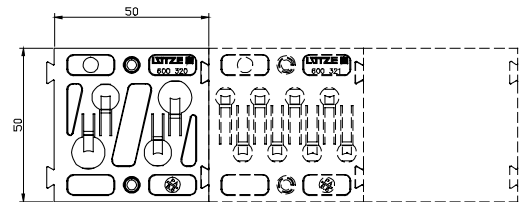
Characteristics:

- Integrated strain relief in one direction
- Easy to install: cable pushes easily into position, locks itself and it can no longer be pulled out unless the clamp is released
- An integrated seal protects up to IP55
- Individual cables can be easily loosened and replaced for troubleshooting, maintenance or retrofitting
- Mix & Match: interlocking seal allows for any combination of the three different cablefix versions to custom fit it to your application
- Blanking plugs are supplied to seal unused holes

Fitting Specifications:

Material	Polyamide PA
Temperature range	-30°C - +70°C / 22°F - +212°F
Halogen-free	Yes
Burning behavior	Polyamide plate according to UL 94 V2
Silicone free	Yes
Enclosure wall thickness	maximum 3 mm
Protection class	IP55
Seal	NBR60 oil resistant

Part No.	Type	Dimensions (WxHxD)	Cut out W x H	Number of Cables x Cable Ø mm
		mm	mm	
600320	1xB/V	50.0 x 50.0 x 10.0	46 x 46	2 x 6.1-8.8 + 2 x 7.8-10.7
600321	1xS/A	50.0 x 50.0 x 10.0	46 x 46	8 x 3.8-6.3
600347	1xST	50.0 x 50.0 x 10.0	46 x 46	6 x 6.3-8.9



Specifications are subject to change without prior notice

Network Connectivity

Industrial Connectors and Panel Pass Through Devices



Industrial Network Connectors

Application

- Industrial Ethernet connectivity

Characteristics

- Standard 22.5 mm cut out installation
- Female / Female 1:1
- Gold-plated 8 pin (4 pair) connection
- Easy to install

Technical Data

Temperature	-25°C - +70°C/ -13°F - +158°F
Protection class	IP65 cap closed, IP20 in inserted operation
Shielding	360°
Contact material	CuSN, gold-plated
Rated current	1.5A
Dimensions (DxD)	29.5 mm x 29 mm
Approvals	UL NEMA UL Type 12

RJ45 Panel Pass Through



Part No.	Description	Transmission Performance	Color
492075	RJ45 F/F 8/8 Cat.5e	100 MHz	gray
491075	RJ45 F/F 8/8 Cat.6	250 MHz	gray

Application

- Industrial Ethernet connectivity

Characteristics

- Insulation Displacement Connector (IDC)
- Zinc die-cast metal housing
- Quick connect technology
- Adequate for Power over Ethernet
- Easy to install

Technical Data

Temperature	-40°C - +70°C/ -40°F - +158°F
Transmission frequency	10 Gigabits/s
Rated current	Max 1.0A per contact
Shielding	360°
Contact material	Spring steel 0.8 µm gold-plated
Fits cable ODs	AWG 27-22
Approvals	UL

RJ45 IDC Industrial Connector



Part No.	Description	Transmission Performance	Color code
490128	RJ45 – M 8 pol. Cat.6a	10 Gigabit/sec	T568B
490129	RJ45 – M 8 pol. Cat.6a	10 Gigabit/sec	T568A

Specifications are subject to change without prior notice

Industrial Network Connectors

Application

- Industrial Ethernet connectivity

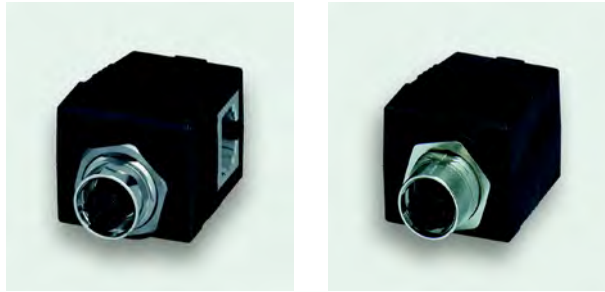
Characteristics

- 17 mm cut out installation
- Female / Female 4:4 or 8:8
- Easy to install

Technical Data

Temperature	-25°C - +85°C/ -13°F - +185°F
Protection class	IP 67 in inserted operation
Rated current	Max 1.0A per contact
Shielding	360°
Contact material	gold-plated phosphor bronze
Dimensions	29.5 x 29 mm

M12 / RJ45 Panel Pass Through



Part No.	Description	No. Poles	Transmission Performance
490105	M12 / RJ45 F/F 90° Cat.5	4	100 Megabit/sec
490106	M12 / RJ45 F/F 180° Cat.5	4	100 Megabit/sec
490107	M12 / RJ45 F/F 90° Cat.5e	8	1 Gigabit/sec
490108	M12 / RJ45 F/F 180° Cat.5e	8	1 Gigabit/sec

Application

- Industrial USB connectivity

Characteristics

- Available with or without cord
- 8 different cords lengths
- Standard 22.5 mm cut out
- Female / Female 1:1 or Female / Male 1:1
- Backwards compatible with USB 2.0
- Easy to install

Technical Data

Temperature	-25°C - +70°C/ -13°F - +158°F
IP Rating	IP65 cap closed, IP20 in inserted operation
Shielding	yes
Transmission	5 Gigabit/sec
Performance	
Contact material	CuSN, gold-plated
Rated current	900 mA per contact
Bending radius	15 x cable OD
Dimensions (DxD)	29.5 mm x 29 mm
Approvals	UL NEMA UL Type 12

USB 3.0 “SuperSpeed” Panel Connector



Part No.	Description	Cord Length
490112	USB 3.0 A/A F/F	N/A
490113.0030	USB 3.0 A/A F/M	0.3 m / 11.8"
490113.0060	USB 3.0 A/A F/M	0.6 m / 32.6"
490113.0080	USB 3.0 A/A F/M	0.8 m / 31.5"
490113.0150	USB 3.0 A/A F/M	1.5 m / 59.0"
490113.0200	USB 3.0 A/A F/M	2.0 m / 78.7"
490113.0300	USB 3.0 A/A F/M	3.0 m / 118.0"
490113.0500	USB 3.0 A/A F/M	5.0 m / 196.8"

Technical Overview

Conductor Stranding	67
Conductor Markings	68-69
Ampacity Chart	70
Motor, VFD and Servo Cable Selection by Horsepower	71
Lutze DRIVEFLEX® VFD and Motor Cable	72
NFPA 79, 2012 Edition	73
ETHERNET – Overview	74-76
Superflex® High Flexing Cable Cycle Ratings	77
Lutze Superflex® Handling and Installation, Quick Overview	78-79
Thread Tables and Torque Recommendations for Cable Fittings	80
Protection Class Designation	81
Fittings Selection Chart	82-87
Part Number Index	88-90

Conductor Stranding according to DIN VDE 0295/IEC 60228

Cross section mm	Fine stranded conductor class 5 per VDE 0295	Superfine stranded conductor class 6 per VDE 0295
0.14		18x0.10
0.25	14x0.15	32x0.10
0.34	19x0.15	42x0.10
0.38	12x0.20	21x0.15
0.50	16x0.20	28x0.15
0.75	24x0.20	42x0.15
1.00	32x0.20	56x0.15
1.50	30x0.25	84x0.15
2.50	50x0.25	140x0.15
4	56x0.30	224x0.15
6	84x0.30	192x0.20
10	80x0.40	320x0.20
16	128x0.40	512x0.20
25	200x0.40	800x0.20
35	280x0.40	1120x0.20
50	400x0.40	705x0.30
70	356x0.50	990x0.30
95	485x0.50	1340x0.30
120	614x0.50	1690x0.30
150	765x0.50	2123x0.30
185	944x0.50	1470x0.40
240	1225x0.50	1905x0.40
300	1530x0.50	2385x0.40

The number of strands is non-binding and may vary slightly to meet specified wire resistance. The VDE 0296 determines only the maximum diameter of the single wire that is required for compliance with the maximum wire resistance at 20°C.

Conductor Stranding Class K according to ASTM B172

Size AWG	Class K Stranding
20	10/AWG30
18	16/AWG30
16	26/AWG30
14	41/AWG30
12	65/AWG30
10	104/AWG30
9	133/AWG30
8	168/AWG30
7	210/AWG30
6	266/AWG30
5	336/AWG30
4	420/AWG30
3	532/AWG30
2	665/AWG30
1	836/AWG30
1/0	1,064/AWG30
2/0	1,323/AWG30
3/0	1,666/AWG30
4/0	2,107/AWG30

Conductor Marking According to DIN 47100

No. Base/ring colors	No. Base/ring colors	No. Base/ring colors	No. Base/ring colors
1 white WH	16 yellow/brown	31 green/blue	46 brown
2 brown BN	17 white/grey	32 yellow/blue	47 green
3 green GN	18 grey/brown	33 green/red	48 yellow
4 yellow YE	19 white/pink	34 yellow/red	49 grey
5 grey GY	20 pink/brown	35 green/black	50 pink
6 pink PK	21 white/blue	36 yellow/black	51 blue
7 blue BU	22 brown/blue	37 grey/blue	52 red
8 red RD	23 white/red	38 pink/blue	53 black
9 black BK	24 brown/red	39 grey/red	54 violet
10 violet VT	25 white/black	40 pink/red	55 grey/pink
11 grey/pink	26 brown/black	41 grey/black	56 red/blue
12 red/blue	27 grey/green	42 pink/black	57 white/green
13 white/green	28 yellow/grey	43 blue/black	58 brown/green
14 brown/green	29 pink/green	44 red/black	59 white/yellow
15 white/yellow	30 yellow/pink	45 white	60 yellow/brown
			61 white/grey

Conductor Marking According to DIN 47100 for Twisted Pairs (TP)

Pair No. Conductor A & B	Pair No. Conductor A/B	Pair No. Conductor A/B	Pair No. Conductor A/B
1 white & brown	4 blue & red	7 white/green & brown/green	10 white/pink & pink/brown
2 green & yellow	5 black & violet	8 white/yellow & yellow/brown	11 white/blue & brown/blue
3 grey & pink	6 grey/pink & red/blue	9 white/grey & grey/brown	12 white/red & brown/red

Color Chart for Hook Up Wire

Color	Abbreviation	Lutze Color No.	RAL No.
black	BK	01	9005
blue	BU	02	5015
red	RD	04	3000
brown	BN	03	8003
green/yellow	GN/YE	00	6018/1021
orange	OG	09	2003
dark blue	DBU	14	5010
blue/white	BU/WH	15	5015/9010
white/blue	WH/BU	44	9010/5015

Lutze Technical Overview

Conductor Marking for Lutze Electronic cables

Electronic PLTC A313, A303

AWG 22

1-	Black
2-	Brown
3-	Red
4-	Orange
5-	Yellow
6-	Green
7-	Blue
8-	Purple
9-	Gray
10-	White
11-	White Black
12-	White Brown
13-	White Red
14-	White Orange
15-	White Yellow
16-	White Green
17-	White Blue
18-	White Purple
19-	White Gray
20-	White Black Brown
21-	White Black Red
22-	White Black Orange
23-	White Black Yellow
24-	White Black Green
25-	White Black Blue

AWG 20

1-	Black
2-	Red
3-	White
4-	Green
5-	Orange
6-	Blue
7-	Brown
8-	Yellow
9-	Purple
10-	Gray
11-	Pink
12-	Tan
13-	Red Green
14-	Red Yellow
15-	Red Black
16-	White Black
17-	White Red
18-	White Green
19-	White Yellow
20-	White Blue
21-	White Brown
22-	White Orange
23-	White Gray
24-	White Purple
25-	White Black Red

Electronic TP PLTC A314

AWG 22

1-	White Black
2-	White Brown
3-	White Red
4-	White Orange
5-	White Yellow
6-	White Green
7-	White Blue
8-	White Purple

AWG 20

1-	Black Red
2-	Black White
3-	Black Green
4-	Black Blue
5-	Black Brown
6-	Black Yellow
7-	Black Orange
8-	Red Green

Lutze Technical Overview

Ampacity Chart

NEC Table 310.16

Allowable Ampacities of Insulated Conductors Rated 0 Through 2000 Volts, 60°C - 90°C (140°F - 194°F), Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried), Based on Ambient Temperature of 30°C (86°F)

Size AWG or kcmil	Temperature Rating of Conductor		
	60°C (140°F)	75°C (167°F)	90°C (194°F)
	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, USE, ZW	Types TBS, SA, SIS, FEP, FEPB, MI, RHH, RHW-2, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2
COPPER			
18	—	—	14
16	—	—	18
14**	15	20	25
12**	20	25	30
10**	30	35	40
8	40	50	55
6	55	65	75
4	70	85	95
3	5	100	115
2	95	115	130
1	110	130	145
1/0	125	150	170
2/0	145	175	195
3/0	165	200	225
4/0	195	230	260

* Refer to 310.15(b)(2) for the ampacity correction factors where the ambient temperature is other than 30°C (86°F)

* Refer to 240.4(d) for conductor overcurrent protection limitations

CORRECTION FACTORS

Ambient Temp. (°C)	For ambient temperatures other than 30°C (86°F), multiply the allowable ampacities shown above by the appropriate factor shown below.						Ambient Temp. (°F)
21-25	1.08	1.05	1.04	1.08	1.05	1.04	70-77
26-30	1	1	1	1	1	1	78-86
31-35	0.91	0.94	0.96	0.91	0.94	0.96	87-95
36-40	0.82	0.88	0.91	0.82	0.88	0.91	96-104
41-45	0.71	0.82	0.87	0.71	0.82	0.87	105-113
46-50	0.58	0.75	0.82	0.58	0.75	0.82	114-122
51-55	0.41	0.67	0.76	0.41	0.67	0.76	123-131
56-60	—	0.58	0.71	—	0.58	0.71	132-140
61-70	—	0.33	0.58	—	0.33	0.58	141-158
71-80	—	—	0.41	—	—	0.41	159-176

NEC Table 310.15(B)(2)A

Adjustment Factors for more than three current carrying conductors in Raceway or cable

Number of Current-Carrying Conductors 1	Percent of Values in Tables 310.15(B) through 310.15(B)(19) as Adjusted for Ambient Temperature if Necessary
4-6	80
7-9	70
10-20	50
21-30	45
31-40	40
40 and above	35

1 Number of conductors is the total number of conductors in the raceway or cable adjusted in accordance with 310.15(B)(5) and (6)

Jacket/Insulation		Max Temp. °C	Abrasion resistance	Oil resistance	Weather resistance
Polyurethane	PUR	80	++	++	++
Polyvinylchloride	PVC	90	+	+	+
Thermoplastic Elastomere	TPE	90	++	++	+
HGI Thermoplastic Elastomere	HGI	90	++	++	++
Polyethylene	PE	80	0	0	+
Foam Polyethylene	FPE	80	0	0	+
Cross-linked Polyethylene	XLPE	90	++	++	++

All values shown are guidelines. Values may not meet NEC requirements. Please check your local code requirements.

Lutze Technical Overview

Simplified Motor, VFD and Servo Cable Selection by Horsepower (HP)

Part#		Amps	AWG (POWER)	230V-3Ø	460V-3 Ø	575V-3 Ø
A2161604	4C	18	16 AWG	NA	NA	NA
A2161404	4C	25	14 AWG	5 HP	10 HP	15 HP
A2161204	4C	30	12 AWG	7.5 HP	15 HP	20 HP
A2161004	4C	40	10 AWG	10 HP	20 HP	30 HP
A2160804	4C	55	8 AWG	15 HP	30 HP	40 HP
A2160604	4C	75	6 AWG	20 HP	40 HP	50 HP
A2190603	3C					
A2160404	4C	95	4 AWG	25 HP	50 HP	60 HP
A2190403	3C					
A2160204	4C	130	2 AWG	40 HP	75 HP	100 HP
A2190203	3C					
A2190103	3C	145	1 AWG	40 HP	75 HP	100 HP
A2191/003	3C	170	1/0	50 HP	100 HP	125 HP
A2192/003	3C	195	2/0	60 HP	125 HP	150 HP
A2193/003	3C	225	3/0	60 HP	150 HP	150 HP
A2194/003	3C	260	4/0	75 HP	150 HP	200 HP

Number of current carrying conductors is three (3) + green/yellow ground(s)

Part#		Amps	AWG (POWER)	230V-3Ø	460V-3 Ø	575V-3 Ø
A2171604	4C+1TSP	14	16 AWG	NA	NA	NA
A2171404	4C+1TSP	20	14 AWG	5 HP	10 HP	10 HP
A2171204	4C+1TSP	24	12 AWG	5 HP	10 HP	15 HP
A2171004	4C+1TSP	32	10 AWG	7.5 HP	15 HP	20 HP
A2170804	4C+1TSP	44	8 AWG	10 HP	25 HP	30 HP
A2170604	4C+1TSP	60	6 AWG	15 HP	30 HP	40 HP
A2170404	4C+1TSP	76	4 AWG	20 HP	40 HP	50 HP
A2170204	4C+1TSP	104	2 AWG	30 HP	60 HP	75 HP

Number of current carrying conductors is five (5) + 1 green/yellow ground

Part#		Amps	AWG (POWER)	230V-3Ø	460V-3 Ø	575V-3 Ø
A2181604	4C+2TSP	12.5	16 AWG	NA	NA	NA
A2181404	4C+2TSP	17.5	14 AWG	3 HP	10 HP	10 HP
A2181204	4C+2TSP	21	12 AWG	5 HP	10 HP	10 HP
A2181004	4C+2TSP	28	10 AWG	7.5 HP	15 HP	20 HP
A2180804	4C+2TSP	38.5	8 AWG	10 HP	20 HP	25 HP

Number of current carrying conductors is seven (7) + 1 green/yellow ground

Notes:

Type of Motor is design B

Class of Service is continuous

Duty-Cycle Service is continuous

Conductor is copper 90°C

Ambient temperature is 26-30°C

Values are based on 2011 NEC 430.250 multiplied x 1.25

Ampacities are based on 2011 NEC 310.15 (B)(16) 90°

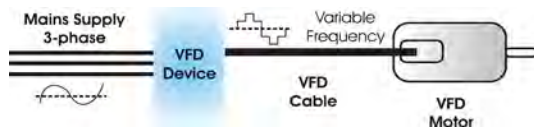
Cables with Signal pair(s) have been de-rated in accordance to 2011 NEC 310.15(B)(3)(a)

*All values given are calculated based on 2011 NEC. For actual amperage consult your Motor/Drive manual and your local code restrictions. This guideline is simplified in order to select cable sizes. This document has no legal meaning, the interpretation of the NEC code has to be verified by the Authority Having Jurisdiction (AHJ).

Lutze DRIVEFLEX® VFD and Servo Motor Cable

A Variable Frequency Drive (VFD) is a device designed for alteration of a motor's rotational speed by changing the frequency and the voltage of the electrical power supplied to it. In this manner, the rotational speed can be adjusted within a wide range from standstill to above the nominal rotation speed at 60 hertz.

The second main feature of a VFD is that it offers motor torque control. To avoid overload of the motor, the torque has to decrease when running the motor at higher speeds and vice versa. In VFD applications the constant frequency of 60 hertz in a sinusoidal waveform is altered into a variable frequency as shown in the illustration.



The use of VFD technology poses high demands on the cable connecting the motor to the drive. Standard 600V control cable does not meet the requirements of VFD applications, thus causing operating malfunctions and may result in premature cable failure. High switching frequencies and harmonic waves cause high capacitive charging current and overvoltage spikes well beyond the 600V rating of standard control cables. These problems put tremendous stress on cables and the stress even increases further the longer the distance between drive and motor.

Another stress factor is called “corona discharge effect”. Insulated conductors have very small gaps between the copper strands and the insulation material caused by the irregular surface of stranded conductors. This can lead to an uncontrolled corona discharge

across these gaps and break down the insulation over time. This problem is well known in medium voltage applications. Lutze offers a premium solution to address the different requirements for VFD and motor cable:

Lutze DRIVEFLEX® VFD and Servo Cable A premium solution with XLPE insulation

XLPE is an insulation material with very low capacitance offering superior electrical characteristics for use as a VFD cable, especially in long cable runs. The XLPE insulation is a thermo-set material with a very high voltage breakdown level, thus inherently addressing the corona discharge effect and making it the premium insulation for any type of drive application. XLPE insulation is recommended by most drive manufacturers, and Lutze DRIVEFLEX® exceeds the VFD cable requirements by Rockwell™ as stated in the “Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives” document. The extra thick insulation offers a 1000V rating per UL. A foil and braid shield combination with drain wire ensures compliance with EMC requirements. Lutze DRIVEFLEX® XLPE is the most flexible XLPE cable in its class - offering easy stripping & installation, thus saving time and money.

DRIVEFLEX® has also been evaluated as flexible VFD and Servo cable and is UL listed for use on Drives and Servos, as well as tray cable exposed run (TC-ER). The DRIVEFLEX® cable family includes many different configurations compatible with many standard Drive and Servo Systems. For more information, please visit www.driveflex.com.



Lutze Technical Overview

NFPA 79, 2012 Edition

NFPA 79 is the electrical standard for Industrial Machinery in the USA. The 2012 edition has again a number of significant updates implemented which affect cable. The NFPA 79 is a standard published by the National Fire Protection Agency, the same Agency that publishes the National Electric Code (a.k.a. NEC or NFPA 70).

The NFPA 79 has special provisions addressing safe wiring practices for industrial machinery such as machine tools. The new 2012 edition allows the use of appliance wiring material (type AWM) to be used with Industrial machinery again. The use of such cable had been prohibited under the previous edition 2007 and this change had caused a lot hardship for most machine manufacturers, which is now resolved.

NFPA 79 still prefers listed cable types to be used. These cables carry a NRTL listed logo such as the “UL listed” logo. It should be noted that cables can have dual or multi ratings and carry both marks, UL recognized and UL listed along with other marks, the listing will prevail.

Permitted:   

Appliance Wiring Material is regulated by UL 758 and carries the recognized logo:

Now permitted:  

In order to use AWM type cable on Industrial machinery and be compliant with NFPA 79 AWM, the cable must accommodate the provisions stated in article 12.9 “Special Cables and Conductors” of the NFPA 2012 edition.

It is sufficient to comply with one of the sections in sections 12.9.2.1 through 12.9.2.3 instead of meeting their requirements in combination. For example:

1. It is permissible to use AWM cable or conductors if part of a listed assembly.
2. Or it is permissible to use AWM cable or conductors if specified for use with approved equipment and in accordance with the equipment manufacturer’s instructions. One example would be a Servo Drive system with a cable assembly made per the Servo-Drive System Manufacturer’s specification and installed per the manufacturer’s instructions.
3. Or it is permissible to use AWM cable or conductors if compliant with 12.9.2.3 and the modifications as described. These modifications will allow those types of AWM cables which are suitable for industrial use by their nature. However, it will control the misuse of AWM cables which do not meet industrial application requirements, e.g. voltage rating, insulation thickness, oil resistance, etc.

All Lutze AWM cables are designed for use in industrial environments and the AWM style and voltage rating is clearly marked on each cable jacket. However, for field installation it will still be safest to rely on cable that is UL listed and verified for the intended use. UL listed cable will make it easier to evaluate a machine in the field and will therefore remain a very important choice for most machine builders in the USA. UL listed cable will also eliminate the need for documentation that the use of AWM cable may require.

Please contact your Lutze representative on questions regarding our offering on UL listed and UL recognized cable to help you be compliant with the latest standards for industrial machinery.

Lutze offers listed types with MTW, TC-ER, PLTC and CM marks. Cables with these markings are considered listed types and are always permitted to be used in NFPA 79 compliant applications.

ETHERNET – Overview

1) Correct Handling and Installation of Network Copper Cable

Do not subject cable to tension

Do not kink the cable

Do not bend the cable more than 90° (See individual specifications for bending radius)

Strip the cable as short as possible

Do not crush cable when fastening

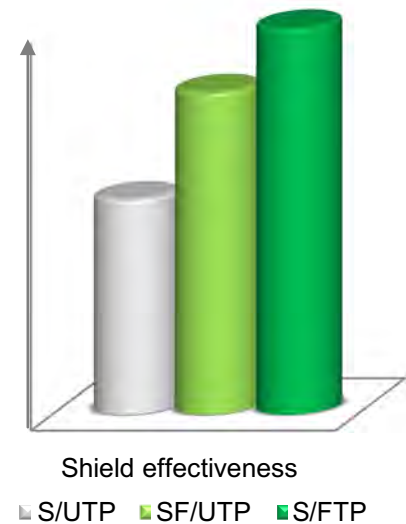
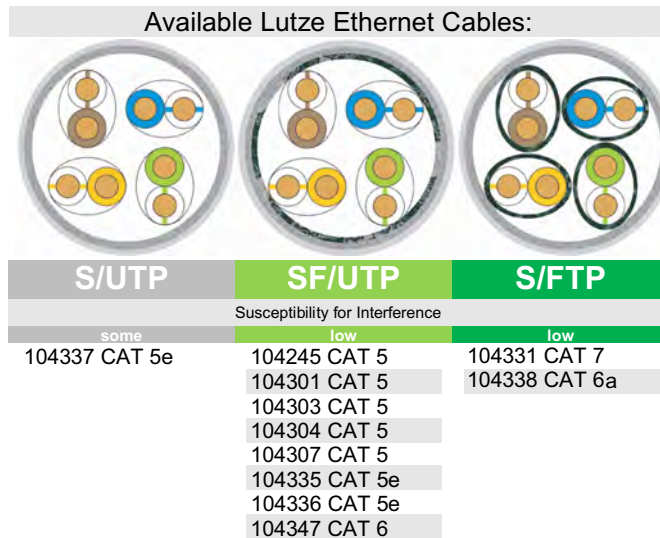
Do not untwist the conductor pairs by more than **0.5 inch**

Terminate the shielding on both ends

2) Lutze ETHERNET Cable

We recommend shielded industrial Ethernet cable, such as Lutze ETHERNET cable, for use in industrial environment to ensure secure connectivity.

Motors and other electrical noise producing devices are often located in close proximity to network cabling. EMI (Electro Magnetic Interference) and RFI (Radio Frequency Interference) can distort data transmission on copper-based network cable. To lessen or eliminate interference, called alien-crosstalk, the use of shielded industrial cable and connectors is recommended.



High end shielded cables provide outstanding electrical characteristics.

3) Key for Twisted Pair Cables according to ISO/IEC-11801 (2002)E

XX/YYZ

XX for the outer shielding	/	Y for the pair shielding	ZZ for the pair arrangement
U = unshielded	/	U = Unshielded	TP = twisted pair (regular)
F = foiled shield	/	F = foiled shield	QP = quad pair (star quad)
S = braided shield	/	S = braided shield	
SF = braided and foiled shield	/		

In order to utilize EMI/RFI shielding, the shield must be properly terminated at both ends!

4) ProfiNet Star Quad Design and Termination

The star quad is a specific low-impedance cable configuration. Four conductors are twisted on a common axis. The conductors across from each other make a pair.

In **Figure 1** the pairs are as follows:

Pair 1:

Conductor A ↔ Conductor D

Pair 2

Conductor C ↔ Conductor B



Figure 1

Other terminations than in **Figure 1** lead to interferences, decreased connectivity or no connectivity at all.

5) Pin Assignment and Installation

RJ45 is the most common Ethernet connector and is available both shielded and unshielded. All pins of the RJ45 connector are used for 1000 Mbit/s (4-pair transmission). Four pins are used for 10/100 Mbit/s (2-pair transmission).

According to the EN 50173 standard, two color codes are defined for installation: T568A and T568B. It makes no difference which color code is used, however the same code should be used consistently throughout the entire installation. Mixing up the two color codes will result in malfunctions.

Pin assignment RJ 45 - Color code according to EN 50173 – hard wiring:

ETHERNET CABLES									
PIN#	Star Quad (ProfiNet)		Regular Twisted Pair						
	100BASE-TX	Color Code	10BASE-T, 100BASE-TX	1000BASE-T		Color Code T568A		Color Code T568B	
1	Transmit+	yellow	Transmit+	BI_DA+	(Bidirectional)	WH/GN		WH/OG	
2	Transmit-	orange	Transmit-	BI_DA-	(Bidirectional)	GN		OG	
3	Receive+	white	Receive+	BI_DB+	(Bidirectional)	WH/OG		WH/GN	
4	-		-	BI_DC+	(Bidirectional)	BU		BU	
5	-		-	BI_DC-	(Bidirectional)	WH/BU		WH/BU	
6	Receive-	blue	Receive-	BI_DB-	(Bidirectional)	OG		GN	
7	-		-	BI_DD+	(Bidirectional)	WH/BN		WH/BN	
8	-		-	BI_DD-	(Bidirectional)	BN		BN	

ETHERNET – Overview

6) ETHERNET Categories and Classes

	ProfiNet®	CAT 5	CAT 5E	CAT 6	CAT 6A	CAT 7
Class	D	D	De	E	Ea	F
Construction	2 pair (AWG 22)	2 pair (AWG 24, AWG 26)	4 pair (AWG 24, AWG 26)	4 pair (26 AWG)	4 pair (26 AWG)	4 pair (26 AWG)
Speed	10/100 Mbit/s	10/100 Mbit/s	10/100/1000 Mbit/s	10/100/1000 Mbit/s	10/100/1000/10000 Mbit/s	10/100/1000/10000 Mbit/s
LAN Applications (max)	10BASE-T (2 pair) 100BASE-TX (2 pair)	10BASE-T (2 pair) 100BASE-TX (2 pair)	10BASE-T (2 pair) 100BASE-TX (2 pair) 1000BASE-T (4 pair)	10BASE-T 100BASE-TX 1000BASE-T 10GBASE-T	10BASE-T 100BASE-TX 1000BASE-T 10GBASE-T	10BASE-T 100BASE-TX 1000BASE-T 10GBASE-T
Nominal impedance	100 Ohms	100 Ohms	100 Ohms	100 Ohms	100 Ohms	100 Ohms
Bandwidth	100 MHz	100 MHz	100 MHz	250 MHz	500 MHz	600 MHz
Max length	328 ft (10BASE-T) 328 ft (100BASE-TX)	328 ft (10BASE-T) 328 ft (100BASE-TX)	328 ft (10BASE-T) 328 ft (100BASE-TX) 328 ft (1000BASE-T)	328 ft (10BASE-T) 328 ft (100BASE-TX) 328 ft (1000BASE-T)	328 ft (10BASE-T) 328 ft (100BASE-TX) 328 ft (1000BASE-T) 328 ft (10GBASE-T)	328 ft (10BASE-T) 328 ft (100BASE-TX) 328 ft (1000BASE-T) 328 ft (10GBASE-T)
CAT compatibility	CAT 5	CAT 5	CAT 5	CAT 5, CAT 5e	CAT 5, CAT 6	CAT 5, CAT 6, CAT 6A
ISO/IEC standard	-	- ISO/IEC 11801	ISO/IEC 11801	ISO/IEC 11801	Amendment 1 to ISO/IEC 11801	ISO/IEC 11801
ANSI/TIA standard	-	-ANSI/TIA-568-B	ANSI/TIA-568-C.2	ANSI/TIA-568-C.2	ANSI/TIA-568-C.2	Not recognized

Specifications are subject to change without prior notice

Lutze Technical Overview

Superflex® High Flexing Cable Cycle Ratings

Lutze Superflex® cables are special high flexing cables which are manufactured for use in applications with extreme flexing conditions in drag chains installed on modern machine tools with linear motors. Lutze has experience for over 35 years in the leading development and manufacturing of high flexing cables for use in continuous moving applications.

Lutze Superflex® Plus PUR is designed for high performance flexing or longer C-tracks. Lutze Superflex® Plus PUR will always contain high grade materials such as High Glide TPE insulation and PUR jackets for high performance application in modern high speed machine tools.

Lutze Superflex® N is designed for moderate to higher performance flexing in short to medium length C-tracks. Lutze Superflex® N is available in different performance grades with materials ranging from PVC/Nylon insulation to High Glide Insulation (TPE) insulation and is typically offered with PVC or PUR jackets.

High flexing cables require special handling and installation techniques and are different from standard control cables. To ensure the longest possible life span for your cable, it is crucial to follow installation procedures precisely.

Cable Type	Traveling distances	Bending Radius	Speed	Acceleration	Cycles
Superflex® PLUS PUR					
High Glide TPE insulation PUR Jacket	for 20,000,000 cycles:				
	< 16 ft / 5 m	> 10 Ø	< 3 m/s	< 5 m/s ²	20,000,000
	for 10,000,000 cycles:				
	< 67 ft / 20 m	> 7 Ø	< 5 m/s	< 10 m/s ²	10,000,000
for 2,000,000 cycles:					
	< 328 ft / 100 m	> 7 Ø	< 5 m/s	< 10 m/s ²	2,000,000
Superflex® PLUS (C) PUR					
High Glide TPE insulation Sub Jacket PUR outer Jacket	for 20,000,000 cycles:				
	< 16 ft / 5 m	> 12 Ø	< 3 m/s	< 5 m/s ²	20,000,000
	for 10,000,000 cycles:				
	< 67 ft / 20 m	> 10 Ø	< 5 m/s	< 10 m/s ²	10,000,000
for 2,000,000 cycles:					
	< 328 ft / 100 m	> 10 Ø	< 5 m/s	< 10 m/s ²	2,000,000
Superflex® N					
High Glide TPE Insulation PVC and Alloy Jackets A138 series	for 10,000,000 cycles:				
	< 16 ft / 5 m	> 12 Ø	< 3 m/s	< 5 m/s ²	10,000,000
for 5,000,000 cycles:					
	< 49 ft / 15 m	> 10 Ø	< 5 m/s	< 10 m/s ²	5,000,000
Superflex® N (C)					
High Glide TPE Insulation Fleece wrap or Sub Jackets PVC and Alloy Jackets A139 series	for 10,000,000 cycles:				
	< 16 ft / 5 m	> 15 Ø	< 3 m/s	< 5 m/s ²	10,000,000
for 5,000,000 cycles:					
	< 49 ft / 15 m	> 12 Ø	< 5 m/s	< 10 m/s ²	5,000,000

The data in this table shows actual application parameters and accomplished cycles in independent tests. Flexing cycle performance can only be compared by looking at all the data. A rating of "millions of operations" is meaningless if the distance, speed and bend radius is unknown.

1) Selecting Cables for Continuous Motion Applications – C-Tracks

We recommend special high flexing cables such as Lutze Superflex® cables, for use in C-tracks to ensure long life times:

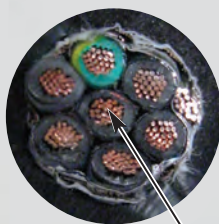
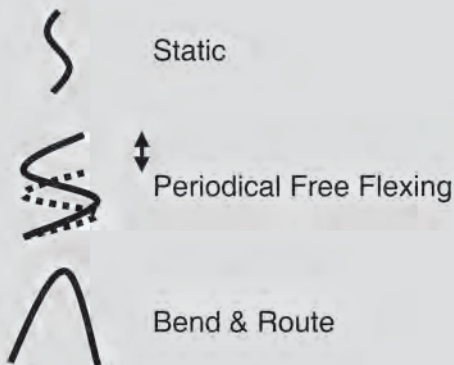
- Lutze Superflex® cable is proven to be compatible with all major brands of C-tracks.
- Lutze Superflex® N is designed for moderate flexing in short to medium length C-tracks.
- Lutze Superflex® Plus **PUR** is designed for high performance flexing or longer C-tracks.

High Flexing Cables such as Lutze Superflex® cables, are different from standard flexible cables:

Standard Flexible Cables



- Low number of strands per conductor
- longer pitch layering
- designed as a pliable cable for easy routing and installation

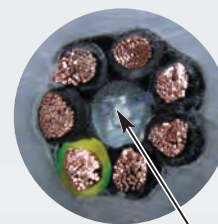


- no central core
- mostly PVC as insulation material
- foil shield or braid shield
- jacket material depends on application

High Flexing Cables - Lutze Superflex®



- high number of super fine strands per conductor
- short pitch layering
- conductors are cabled without back twist
- higher quality of materials
- slower and more complex manufacturing process on high-end equipment
- designed for linear constant motion



- central core for single layer construction
- special PVC or TPE as insulation material
- tinned copper braid shield
- high abrasion resistant jacket material such as PUR

Handling and Installation Lutze Superflex® – Quick Overview

2) Correct Handling of Lutze Superflex® Cables

- When unreeling the cable, do not change the bend direction. The cable has to go on the new reel in the same direction it came off the reel. Low and equal tensile force during spooling!



DO ✓

DO NOT ✗

- Ring put ups require careful uncoiling by rolling the ring upright over the floor.



DO ✓

- Do not twist the cable when unwinding. Always unwind straight from spool.



DO NOT ✗

3) Correct Installation of Lutze Superflex® Cable

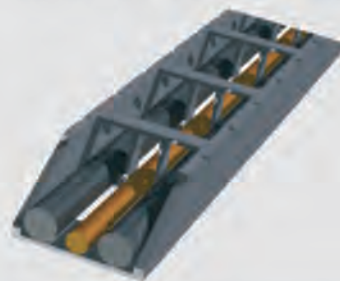
- Cable retains bend from reel. Do not flex against original bend or relax cable for 24 hrs by laying it flat.



DO ✓

DO NOT ✗

- Try to ensure balanced weight distribution. If you have more than one heavy cable, we recommend installing the heavy cables evenly to each side of the track.



- Use dividers horizontally and vertically to separate the track into separate cavities. Install just one cable per separated cavity. If absolutely necessary, two small or a small and a big cable can share a cavity.



- Observe the minimum bending radius for optimum performance. Make sure that all cables are length-adjusted and run in the neutral zone.



DO ✓

DO NOT ✗

For further information please visit: www.lutze.com/superflex

Lutze Technical Overview

Thread Tables for Lutze Cable Fittings - NPT, PG, Metric

NPT	Pitch mm	Outside Diameter mm	Number of Threads per Unit Length	Clearance Hole mm
NPT 3/8"	1.411	17.055	18	17.0
NPT 1/2"	1.814	21.223	14	22
NPT 3/4"	1.814	26.568	14	29
NPT 1"	2.208	33.227	11.5	33.5

PG to DIN 40430	Pitch mm	Outside Diameter mm	Core Diameter mm	Clearance Hole mm
PG7	1.270	12.5	11.28	12.7
PG9	1.410	15.2	13.86	15.4
PG11	1.410	18.6	17.26	18.8
PG13	1.410	20.4	19.06	20.7
PG16	1.410	22.5	21.16	22.8
PG21	1.588	28.3	26.78	28.6
PG29	1.588	37.0	35.48	37.4
PG36	1.588	47.0	45.48	47.5
PG42	1.588	54.0	52.48	54.5
PG48	1.588	59.3	57.78	59.8

Metric to EN 60423	Pitch mm	Outside Diameter mm	Core Diameter mm	Clearance Hole mm
M12x1.5	1.5	12	10.5	12.2
M16x1.5	1.5	16	14.5	16.2
M20x1.5	1.5	20	18.5	20.2
M25x1.5	1.5	25	23.5	25.2
M32x1.5	1.5	32	30.5	32.2
M40x1.5	1.5	40	38.5	40.2
M50x1.5	1.5	50	48.5	50.2
M63x1.5	1.5	63	61.5	63.2

Torque Recommendations for Lutze Cable Fittings - Plastic and Metal Dome Nuts

Nominal Size	Recommended Torque in Nm	
	Plastic	Metal
NPT 3/8"	2.5	4.5
NPT 1/2"	3.0	5
NPT 3/4"	5.0	7.0
NPT 1"	5.0	7.0
PG7	2.5	6.25
PG9	3.75	6.25
PG11	3.75	6.25
PG13.5	3.75	6.25
PG16	5.0	7.5
PG21	7.5	10.0
PG29	7.5	10.0
PG36	7.5	10.0
PG42	7.5	10.0
PG48	7.5	10.0
M12x1.5	1.0	5
M16x1.5	2.5	5
M20x1.5	4.0	7.5
M25x1.5	6.0	10
M32x1.5	7.0	15
M40x1.5	7.5	18
M50x1.5	8.0	20
M63x1.5	9.0	20

The specified values are recommended for achieving the protection class IP68 at 5 bar. Please choose the suitable torque for the material and cable application. The actual crush resistance of each cable must be considered. The values shown are for reference only.

Protection Class Designation according to EN 60529

The protection of electrical equipment through corresponding enclosure is specified with code letters and code numbers. This protection class designation consists of the letters "IP" and two code numbers from 0 to 8. The first code number stands for the protection against contact and foreign substances, the second number specifies the degree of protection against water.

The higher the respective code number is, the higher the offered protection. The protection class for each product is specified in the respective technical information.

For example:

IP 65	Code letter IP	IP	
	First code number	6	corresponds to: Protection against entrance of dust
	Second code number	5	corresponds to: Protection against sprayed water

For protection against contact and foreign substances

First code number	Protection scope designation	Explanation
0	No protection	No special protection of persons from accidental contact with standing or moving parts under voltage. No protection of the equipment against entry of solid foreign substances.
1	1 Protection against foreign substances > 50 mm	Protection against accidental contact of large area surfaces of standing and internally moving parts under voltage, e.g. with the hand, but no protection against intentional access to these parts. Protection against entry of solid foreign substances with a diameter larger than 50 mm.
2	Protection against foreign substances > 12 mm voltage	Protection against contact by the fingers of standing or internally moving parts under voltage. Protection against entry of solid foreign substances with a diameter larger than 12 mm.
3	Protection against foreign substances > 2.5 mm tools	Protection against contact of standing or internally moving parts under voltage with, wires or similar of a thickness larger than 2.5 mm. Protection against entry of solid foreign substances with a diameter larger than 2.5 mm.
4	Protection against foreign substances > 1 mm	Protection against contact of standing or internally moving parts under voltage with tools, wires or similar of a thickness larger than 1 mm. Protection against entry of solid foreign substances with a diameter larger than 1 mm.
5	Protection against dust accumulation	Full protection against contact of standing or internally moving parts under voltage moving parts under voltage. Protection against dust accumulation. The entry of dust is not fully prevented but the dust may not enter in such quantities that the functioning is impaired.
6	Protection against dust accumulation	Full protection against contact of standing or internally moving parts under voltage moving parts under voltage. Protection against entry of dust.

For water protection

Second code number	Protection scope designation	Explanation
0	No protection	No special protection.
1	Protection against vertically falling dripping water	Water drops that fall vertically may not have any damaging effect.
2	Protection against dripping water falling at an angle	Water drops that fall at an arbitrary angle of up to 15° to vertical may not have any damaging effect.
3	Protection against sprayed water	Water that falls in an arbitrary angle up to 60° to vertical may not have a damaging effect.
4	Protection against splashed water	Water that is splashed from all directions against the equipment may not have a damaging effect.
5	Protection against water projected from a nozzle	Water projected from a nozzle that is aimed at the equipment from all directions may not have any damaging effect.
6	Protection against flooding	Water may not enter into the equipment in damaging amounts during temporary flooding (e.g. by heavy seas)
7	Protection against immersion	Water may not enter in damaging amounts if the equipment is immersed in water for the defined pressure and time conditions.
8	Protection against submersion	Water may not enter in damaging amounts if the equipment is submerged in water for the defined pressure and indefinite amount of time.

Lutze Fittings Selection Chart

To complete the part number for plastic fittings, add color code B for Black or G for Gray at the end.

Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric	Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric
104205	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111378	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40
104206	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111420	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
104207	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111421	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
104245	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111422	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
104264	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111423	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
104265	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111424	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
104270	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111425	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
104275	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	111426	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40
104279	FPNPT12	FPPG16	FPM20	FMNPT12	FMPG16	FMM20	111427	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40
104280	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111455	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
104281	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	111456	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
104287	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111457	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
104289	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12	111458	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
104293	FPNPT38	FPPG9	FPM16	FMNPT12	FMPG9	FMM16	111459	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
104301	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111460	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
104303	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111461	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
104304	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12	111462	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
104307	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111463	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
104331	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111464	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
104335	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111465	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
104336	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111466	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40
104337	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	111467	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40
104338	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	111468	N/A	FPPG42	FPM50	N/A	FMPG42	FMM50
104344	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	113300	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
104347	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	113301	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
110940	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	113302	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
110941	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	113303	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
111126	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	113304	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111127	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	113305	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111128	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	113312	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
111129	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	113313	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
111130	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	113314	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111131	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	113315	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111132	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	113316	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
111133	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	113317	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
111289	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	113318	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
111290	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	113319	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111291	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	113320	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
111292	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	113321	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
111293	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	113322	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
111294	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	113323	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
111295	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	113324	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
111296	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40	113331	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111370	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	113332	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111371	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	113339	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
111372	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	113340	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
111373	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	113341	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
111374	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	113342	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
111375	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	113344	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
111376	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	113347	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
111377	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40	113400	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12

Lutze Fittings Selection Chart

Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric	Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric
113401	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	117102	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113402	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	117103	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113403	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	117104	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113404	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	117106	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
113405	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	117107	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
113406	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	117108	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113407	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	117109	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113408	FPNPT38	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	117110	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113409	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	117111	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113410	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	117112	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113411	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	117113	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
113412	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	117115	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
113415	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	117116	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
113416	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	117123	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
113417	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	117124	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
113426	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	117170	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113431	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	117171	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113433	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	117172	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12
113438	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	117173	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
113441	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	117174	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
113442	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	117175	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
113443	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	117176	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
113444	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	117177	FPNPT38	FPPG9	FPM16	FMNPT12	FMPG9	FMM16
113446	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	108349A	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113447	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	108350A	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113479	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	108351A	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
113483	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	108352A	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
113484	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108353A	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
113485	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12	108354A	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
117028	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	108355A	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
117029	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	108356A	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
117035	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108357A	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12
117039	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108358A	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
117040	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108359A	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
117041	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108360A	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
117042	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108361A	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
117043	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108362A	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
117044	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108363A	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
117046	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	108372A	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
117047	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	108373A	FPNPT38	FPPG9	FPM16	FMNPT12	FMPG9	FMM16
117048	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108374A	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
117049	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108375A	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
117050	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108376A	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
117051	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108377A	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
117052	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108378A	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
117053	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108380A	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
117055	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	108381A	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
117056	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	108382A	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
117099	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108383A	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
117100	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108384A	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
117101	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	108385A	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32

Lutze Fittings Selection Chart

To complete the part number for plastic fittings, add color code B for Black or G for Gray at the end.

Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric	Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric
108386A	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A1381834	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
108391A	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12	A1381841	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
108392A	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1381850	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
108393A	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A1382003	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
108401A	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A1382004	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12
A1161004	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A1382005	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12
A1161204	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A1382007	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A1161404	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1382012	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A1161604	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1382018	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A1161804	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A1382025	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A1171004	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40	A1391204	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM25
A1171204	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32	A1391207	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1171404	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32	A1391404	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A1171604	FPNPT12	FPPG16	FPM20	N/A	FMPG16	FMM25	A1391405	FPNPT12	FPPG16	FPM20	FMNPT12	FMPG16	FMM25
A1241204	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A1391407	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM25
A1241404	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A1391603	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A1241407	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1391604	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A1241412	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A1391605	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A1241603	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A1391607	FPNPT12	FPPG16	FPM20	FMNPT12	FMPG16	FMM25
A1241604	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A1391612	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1241605	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A1391618	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1241607	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A1391625	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40
A1241612	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1391803	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A1241618	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A1391804	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A1241625	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A1391805	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A1241803	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A1391807	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A1241804	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A1391812	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM25
A1241805	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A1391818	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1241807	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A1391825	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1241812	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1391834	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40
A1241818	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A1392003	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A1241825	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A1392004	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A1381204	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1392005	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A1381207	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A1392007	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A1381404	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A1392012	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A1381405	FPNPT38	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A1392018	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM25
A1381407	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A1392025	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1381603	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A2160204	N/A	FPPG42	FPM50	N/A	FMPG42	FMM50
A1381604	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A2160404	N/A	FPPG36	FPM40	N/A	FMPG36	FMM50
A1381605	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A2160604	N/A	FPPG36	FPM40	N/A	FMPG36	FMM50
A1381607	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A2160804	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40
A1381612	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A2161004	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1381618	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A2161204	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1381625	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A2161404	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32
A1381803	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A2161604	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM25
A1381804	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A2170204	N/A	FPPG42	FPM50	N/A	FMPG42	FMM63
A1381805	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A2170404	N/A	FPPG36	FPM40	N/A	FMPG36	FMM50
A1381807	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A2170604	N/A	FPPG36	FPM40	N/A	FMPG36	FMM50
A1381812	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A2170804	N/A	FPPG36	FPM40	N/A	FMPG36	FMM50
A1381818	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A2171004	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40
A1381825	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A2171204	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40

Lutze Fittings Selection Chart

Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric	Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric
A2171404	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32	A3081605	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A2171604	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32	A3081607	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A2180804	N/A	FPPG36	FPM40	N/A	FMPG36	FMM50	A3081609	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A2181004	FPNPT10	FPPG29	FPM40	FMNPT10	FMPG29	FMM40	A3081612	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A2181204	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40	A3081618	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A2181404	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40	A3081625	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A2181604	FPNPT34	FPPG29	FPM25	FMNPT34	FMPG21	FMM32	A3081634	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM40
A3032002	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081641	FPNPT10	FPPG36	FPM40	FMNPT10	FMPG36	FMM40
A3032003	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081802	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3032004	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081803	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3032006	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081804	FPNPT38	FPPG9	FPM16	FMNPT12	FMPG9	FMM16
A3032008	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3081805	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3032010	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3081807	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3032015	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3081809	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3032020	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3081812	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3032025	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3081818	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3032202	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081825	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3032203	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081834	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3032204	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081841	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3032206	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3081850	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3032208	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3082003	FPNPT38	FPPG9	FPM12	FMNPT38	FMPG9	FMM12
A3032210	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3082004	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3032215	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3082005	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3032220	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3082007	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3032225	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3082012	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3080204	N/A	FPPG48	FPM60	N/A	FMPG48	FMM63	A3082018	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3080404	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40	A3082025	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3080603	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A3091004	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3080604	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A3091203	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3080605	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A3091204	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3080803	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3091205	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3080804	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A3091403	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3080805	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A3091404	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3081003	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3091405	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3081004	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3091407	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3081005	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3091412	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3081203	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3091602	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20
A3081204	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3091603	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3081205	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3091604	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3081207	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3091605	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3081403	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3091607	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3081404	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3091612	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3081405	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3091618	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3081407	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3091625	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3081409	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3091802	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3081412	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3091803	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3081418	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A3091804	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3081425	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32	A3091805	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3081602	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3091807	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3081603	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3091812	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3081604	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3091818	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25

Lutze Fittings Selection Chart

To complete the part number for **plastic fittings**, add color code B for Black or G for Gray at the end.

Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric	Part#	Plastic NPT	Plastic PG	Plastic Metric	Metal NPT	Metal PG	Metal Metric
A3091825	FPNPT10	FPPG21	FPM25	FMNPT10	FMPG21	FMM25	A3211605	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3092003	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3211607	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3092004	FPNPT38	FPPG9	FPM16	FMNPT12	FMPG9	FMM16	A3211612	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3092005	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3211618	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3092007	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3211625	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3092012	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3211803	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3092018	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3211804	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3092025	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3211805	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3132002	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3211807	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3132003	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3211812	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3132004	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3211818	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3132006	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3211825	FPNPT10	FPPG21	FPM25	FMNPT10	FMPG21	FMM25
A3132008	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3220103	N/A	FPPG42	FPM50	N/A	FMPG42	FMM50
A3132010	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3220204	N/A	FPPG42	FPM50	N/A	FMPG42	FMM50
A3132015	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3220404	N/A	FPPG36	FPM40	N/A	FMPG36	FMM40
A3132020	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3220604	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3132025	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3220804	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3132202	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3220805	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3132203	FPNPT38B-R	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3221003	FPNPT12	FPPG16	FPM20	N/A	FMPG16	FMM25
A3132204	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3221004	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3132206	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3221005	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3132208	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3221203	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3132210	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3221204	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3132215	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3221205	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3132220	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3221207	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3132225	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3221403	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3142002	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3221404	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3142004	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20	A3221405	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3142006	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20	A3221407	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3142008	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20	A3221412	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3142010	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3221602	FPNPT38	FPPG13	FPM16	FMNPT12	FMPG11	FMM20
A3142012	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3221603	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3142016	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM25	A3221604	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3142202	FPNPT38	FPPG7	FPM12	FMNPT38	FMPG7	FMM12	A3221605	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3142204	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3221607	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3142206	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3221612	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3142208	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16	A3221618	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3142210	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20	A3221625	FPNPT10	FPPG29	FPM32	FMNPT10	FMPG29	FMM32
A3142212	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20	A3221803	FPNPT38	FPPG9	FPM16	FMNPT38	FMPG9	FMM16
A3142216	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20	A3221804	FPNPT38	FPPG9	FPM16	FMNPT12	FMPG9	FMM16
A3211005	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM32	A3221805	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3211203	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3221807	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3211205	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3221812	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20
A3211403	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3221818	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3211404	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3221825	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3211405	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20	A3251204	FPNPT12	FPPG16	FPM20	FMNPT12	FMPG13	FMM20
A3211407	FPNPT12	FPPG16	FPM20	FMNPT34	FMPG16	FMM20	A3251404	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3211412	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25	A3251603	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16
A3211602	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM20	A3251607	FPNPT12	FPPG13	FPM20	FMNPT12	FMPG13	FMM20
A3211603	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3251612	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25
A3211604	FPNPT38	FPPG11	FPM16	FMNPT12	FMPG11	FMM16	A3251619	FPNPT34	FPPG21	FPM25	FMNPT34	FMPG21	FMM25

Part Number Index

Part#	Page	Part#	Page	Part#	Page	Part#	Page	Part#	Page	Part #	Page
104205	25	111378	32	113409	30	117172	40	600401	55	600643	57
104206	25	111420	34	113410	30	117173	40	600402	55	600644	57
104207	25	111421	34	113411	30	117174	40	600403	55	600645	57
104216	25	111422	34	113412	30	117175	40	600404	55	600646	57
104217	25	111423	34	113415	30	117176	40	600405	55	600647	57
104245	42	111424	34	113416	30	117177	40	600406	55	600648	57
104264	25	111425	34	113417	30	330060	58	600407	55	600649	57
104265	41	111426	34	113426	30	330071	58	600408	55	600651	57
104270	41	111427	34	113431	30	330072	58	600409	55	600652	57
104275	41	111455	35	113433	30	330073	58	600410	55	600653	57
104279	41	111456	35	113438	30	330089	58	600411	55	600654	57
104280	25	111457	35	113441	30	331000	58	600412	55	600655	57
104281	25	111458	35	113442	30	331001	58	600413	55	600656	57
104287	41	111459	35	113443	30	331002	58	600414	55	606001	60
104289	41	111460	33	113444	30	331003	58	600416	55	606002	60
104293	25	111461	33	113446	30	331004	58	600460	54	606004	60
104301	24	111462	33	113447	30	346812	58	600461	54	606005	60
104303	42	111463	33	113479	30	346813	58	600462	54	606007	60
104304	42	111464	33	113483	30	346814	58	600463	54	606050	60
104307	24	111465	33	113484	30	346860	58	600464	54	606051	60
104331	24	111466	33	113485	30	490105	65	600465	54	606150	60
104335	24	111467	33	117028	38	490106	65	600466	54	606151	60
104336	24	111468	33	117029	38	490107	65	600541	57	606152	60
104337	42	113300	31	117039	38	490108	65	600542	57	606153	60
104338	24	113301	31	117040	38	490112	65	600543	57	606154	60
104344	25	113302	31	117041	38	490113.0030	65	600544	57	606155	60
104347	42	113303	31	117042	38	490113.0060	65	600545	57	606156	60
110940	35	113304	31	117043	38	490113.0080	65	600546	57	606157	60
110941	35	113305	31	117044	38	490113.0150	65	600550	48	606158	60
111126	36	113312	31	117046	38	490113.0200	65	600551	48	606159	60
111127	36	113313	31	117047	38	490113.0300	65	600553	48	606160	60
111128	36	113314	31	117048	38	490113.0500	65	600554	48	606200	60
111129	36	113315	31	117049	38	490128	64	600557	48	606201	60
111130	36	113316	31	117050	38	490129	64	600558	48	606202	60
111131	36	113317	31	117051	38	491075	64	600561	48	606203	60
111132	36	113318	31	117052	38	492075	64	600562	48	606204	60
111133	36	113319	31	117053	38	600220	55	600565	48	606205	60
111271	34	113320	31	117055	38	600221	55	600566	48	606206	60
111272	34	113321	31	117056	38	600222	55	600604	48	606207	60
111276	34	113322	31	117099	39	600223	55	600605	48	606208	60
111280	34	113323	31	117100	39	600224	55	600606	48	606209	60
111281	34	113324	31	117101	39	600225	55	600607	48	606250	60
111282	34	113331	31	117102	39	600226	55	600626	57	606251	60
111289	37	113332	31	117103	39	600227	55	600627	57	606252	60
111290	37	113339	31	117104	39	600228	55	600628	57	606253	60
111291	37	113340	31	117106	39	600229	55	600629	57	606254	60
111292	37	113341	31	117107	39	600230	55	600630	57	606255	60
111293	37	113342	31	117108	39	600320	62	600631	57	606256	60
111294	37	113344	31	117109	39	600321	62	600632	57	606257	60
111295	37	113347	31	117110	39	600347	62	600633	57	606258	60
111296	37	113400	30	117111	39	600351	48	600634	57	606259	60
111370	32	113401	30	117112	39	600352	48	600635	57	606260	60
111371	32	113402	30	117113	39	600353	48	600636	57	108349A	13
111372	32	113403	30	117115	39	600355	48	600637	57	108350A	13
111373	32	113404	30	117116	39	600356	48	600638	57	108351A	13
111374	32	113405	30	117123	39	600357	48	600639	57	108352A	13
111375	32	113406	30	117124	39	600358	48	600640	57	108353A	13
111376	32	113407	30	117170	40	600359	48	600641	57	108354A	13
111377	32	113408	30	117171	40	600400	55	600642	57	108355A	13

Part Number Index

Part#	Page	Part#	Page	Part#	Page	Part#	Page	Part #	Page	Part#	Page
108356A	13	A1381604	28	A2170404	15	A3081418	6	A3092005	8	A3221004	10
108357A	13	A1381605	28	A2170604	15	A3081425	6	A3092007	8	A3221005	10
108358A	13	A1381607	28	A2170804	15	A3081602	6	A3092012	8	A3221203	10
108359A	13	A1381612	28	A2171004	15	A3081603	6	A3092018	8	A3221204	10
108360A	13	A1381618	28	A2171204	15	A3081604	6	A3092025	8	A3221205	10
108361A	13	A1381625	28	A2171404	15	A3081605	6	A3132002	20	A3221207	10
108362A	13	A1381803	28	A2171604	15	A3081607	6	A3132003	20	A3221403	10
108363A	13	A1381804	28	A2180804	16	A3081609	6	A3132004	20	A3221404	10
108372A	13	A1381805	28	A2181004	16	A3081612	6	A3132006	20	A3221405	10
108373A	13	A1381807	28	A2181204	16	A3081618	6	A3132008	20	A3221407	10
108374A	13	A1381812	28	A2181404	16	A3081625	6	A3132010	20	A3221412	10
108375A	13	A1381818	28	A2181604	16	A3081634	6	A3132015	20	A3221602	10
108376A	13	A1381825	28	A2190103	17	A3081641	6	A3132020	20	A3221603	10
108377A	13	A1381834	28	A2190203	17	A3081802	6	A3132025	20	A3221604	10
108378A	13	A1381841	28	A2190403	17	A3081803	6	A3132202	20	A3221605	10
108380A	13	A1381850	28	A2190603	17	A3081804	6	A3132203	20	A3221607	10
108381A	13	A1382003	28	A2191/003	17	A3081805	6	A3132204	20	A3221612	10
108382A	13	A1382004	28	A2192/003	17	A3081807	6	A3132206	20	A3221618	10
108383A	13	A1382005	28	A2193/003	17	A3081809	6	A3132208	20	A3221625	10
108384A	13	A1382007	28	A2194/003	17	A3081812	6	A3132210	20	A3221803	10
108385A	13	A1382012	28	A3032002	19	A3081818	6	A3132215	20	A3221804	10
108386A	13	A1382018	28	A3032003	19	A3081825	6	A3132220	20	A3221805	10
108391A	13	A1382025	28	A3032004	19	A3081834	6	A3132225	20	A3221807	10
108392A	13	A1391204	29	A3032006	19	A3081841	6	A3142004	21	A3221812	10
108393A	13	A1391207	29	A3032008	19	A3081850	6	A3142008	21	A3221818	10
108401A	13	A1391404	29	A3032010	19	A3082003	6	A3142012	21	A3221825	10
A1161004	18	A1391405	29	A3032015	19	A3082004	6	A3142016	21	A3251204	9
A1161204	18	A1391407	29	A3032020	19	A3082005	6	A3142204	21	A3251404	9
A1161404	18	A1391603	29	A3032025	19	A3082007	6	A3142208	21	A3251603	9
A1161604	18	A1391604	29	A3032202	19	A3082012	6	A3142212	21	A3251607	9
A1161804	18	A1391605	29	A3032203	19	A3082018	6	A3142216	21	A3251612	9
A1171004	18	A1391607	29	A3032204	19	A3082025	6	A3211005	11	A3251619	9
A1171204	18	A1391612	29	A3032206	19	A3091004	8	A3211203	11	A3251625	9
A1171404	18	A1391618	29	A3032208	19	A3091203	8	A3211205	11	A3251803	9
A1171604	18	A1391625	29	A3032210	19	A3091204	8	A3211403	11	A3251807	9
A1241204	12	A1391803	29	A3032215	19	A3091205	8	A3211404	11	A3251812	9
A1241404	12	A1391804	29	A3032220	19	A3091403	8	A3211405	11	A3251819	9
A1241407	12	A1391805	29	A3032225	19	A3091404	8	A3211407	11	A3251825	9
A1241412	12	A1391807	29	A3080204	7	A3091405	8	A3211412	11	A3251837	9
A1241603	12	A1391812	29	A3080404	7	A3091407	8	A3211603	11	A60100	23
A1241604	12	A1391818	29	A3080603	7	A3091412	8	A3211604	11	A60101	23
A1241605	12	A1391825	29	A3080604	7	A3091602	8	A3211605	11	A60200	23
A1241607	12	A1391834	29	A3080605	7	A3091603	8	A3211607	11	A60201	23
A1241612	12	A1392003	29	A3080803	7	A3091604	8	A3211612	11	A60400	23
A1241618	12	A1392004	29	A3080804	7	A3091605	8	A3211618	11	A60401	23
A1241625	12	A1392005	29	A3080805	7	A3091607	8	A3211625	11	A60600	23
A1241803	12	A1392007	29	A3081003	7	A3091612	8	A3211803	11	A60601	23
A1241804	12	A1392012	29	A3081004	7	A3091618	8	A3211804	11	A60800	22
A1241805	12	A1392018	29	A3081005	7	A3091625	8	A3211805	11	A60801	22
A1241807	12	A1392025	29	A3081203	7	A3091802	8	A3211807	11	A61000	22
A1241812	12	A2160204	14	A3081204	7	A3091803	8	A3211812	11	A61001	22
A1241818	12	A2160404	14	A3081205	7	A3091804	8	A3211818	11	A61200	22
A1241825	12	A2160604	14	A3081207	7	A3091805	8	A3211825	11	A61201	22
A1381204	28	A2160804	14	A3081403	6	A3091807	8	A3220204	10	A61400	22
A1381207	28	A2161004	14	A3081404	6	A3091812	8	A3220404	10	A61401	22
A1381404	28	A2161204	14	A3081405	6	A3091818	8	A3220604	10	A61402	22
A1381405	28	A2161404	14	A3081407	6	A3091825	8	A3220804	10	A61403	22
A1381407	28	A2161604	14	A3081409	6	A3092003	8	A3220805	10	A61404	22
A1381603	28	A2170204	15	A3081412	6	A3092004	8	A3221003	10	A61405	22

Part Number Index

Part#	Page	Part#	Page	Part#	Page	Part #	Page
A61414	22	FMM50-L	51	FPNPT34B	44	LPM25G	47
A61600	22	FMM63	51	FPNPT34B-R	44	LPM32B	47
A61601	22	FMM63-C2	53	FPNPT34G	44	LPM32G	47
A61602	22	FMM63-L	51	FPNPT38B	44	LPM40B	47
A61603	22	FMNPT10	49	FPNPT38B-R	44	LPM40G	47
A61604	22	FMNPT10-C2	53	FPNPT38G	44	LPM50B	47
A61605	22	FMNPT12	49	FPPG11B	45	LPM50G	47
A61614	22	FMNPT12-C2	53	FPPG11G	45	LPM63B	47
A61615	22	FMNPT34	49	FPPG11G-R	45	LPM63G	47
A61644	22	FMNPT34-C2	53	FPPG13B	45	LPNPT10B	47
A61800	22	FMNPT38	49	FPPG13G	45	LPNPT10G	47
A61801	22	FMNPT38-C2	53	FPPG13G-R	45	LPNPT12B	47
A61802	22	FMPG11	50	FPPG16B	45	LPNPT12G	47
A61803	22	FMPG11-L	50	FPPG16G	45	LPNPT34B	47
A61804	22	FMPG13	50	FPPG16G-R	45	LPNPT34G	47
A61814	22	FMPG13-L	50	FPPG21B	45	LPNPT38B	47
A61844	22	FMPG16	50	FPPG21G	45	LPNPT38G	47
A61900	22	FMPG16-L	50	FPPG21G-R	45	LPPG11B	47
A61901	22	FMPG21	50	FPPG29B	45	LPPG11G	47
A61902	22	FMPG21-L	50	FPPG29G	45	LPPG13B	47
A61903	22	FMPG29	50	FPPG29G-R	45	LPPG13G	47
A61904	22	FMPG29-L	50	FPPG36B	45	LPPG16B	47
A61914	22	FMPG36	50	FPPG36G	45	LPPG16G	47
A67000	23	FMPG42	50	FPPG36G-R	45	LPPG21B	47
A67001	23	FMPG48	50	FPPG42B	45	LPPG21G	47
A69500	23	FMPG7	50	FPPG42G	45	LPPG29B	47
A69501	23	FMPG7-L	50	FPPG48B	45	LPPG29G	47
AMM16-12	56	FMPG9	50	FPPG48G	45	LPPG36B	47
AMM20-12	56	FMPG9-L	50	FPPG7B	45	LPPG36G	47
AMM25-34	56	FPM12B	46	FPPG7G	45	LPPG42B	47
AMM32-10	56	FPM12G	46	FPPG7G-R	45	LPPG42G	47
AMM32-34	56	FPM12G-R	46	FPPG9B	45	LPPG48B	47
FMM12	51	FPM16B	46	FPPG9G	45	LPPG48G	47
FMM12-C	52	FPM16G	46	FPPG9G-R	45	LPPG7B	47
FMM12-C2	53	FPM16G-R	46	LMM12	54	LPPG7G	47
FMM12-L	51	FPM20B	46	LMM16	54	LPPG9B	47
FMM16	51	FPM20G	46	LMM20	54	LPPG9G	47
FMM16-C	52	FPM20G-R	46	LMM25	54		
FMM16-C2	53	FPM25B	46	LMM32	54		
FMM16-L	51	FPM25G	46	LMM40	54		
FMM20	51	FPM25G-R	46	LMM50	54		
FMM20-C	52	FPM32B	46	LMM63	54		
FMM20-C2	53	FPM32G	46	LMPG11	54		
FMM20-L	51	FPM32G-R	46	LMPG13	54		
FMM25	51	FPM40B	46	LMPG16	54		
FMM25-C	52	FPM40G	46	LMPG21	54		
FMM25-C2	53	FPM40G-R	46	LMPG29	54		
FMM25-L	51	FPM50B	46	LMPG36	54		
FMM32	51	FPM50G	46	LMPG42	54		
FMM32-C	52	FPM50G-R	46	LMPG48	54		
FMM32-C2	53	FPM63B	46	LMPG7	54		
FMM32-L	51	FPM63G	46	LMPG9	54		
FMM40	51	FPM63G-R	46	LPM12B	47		
FMM40-C	52	FPNPT10B	44	LPM12G	47		
FMM40-C2	53	FPNPT10B-R	44	LPM16B	47		
FMM40-L	51	FPNPT10G	44	LPM16G	47		
FMM50	51	FPNPT12B	44	LPM20B	47		
FMM50-C	52	FPNPT12B-R	44	LPM20G	47		
FMM50-C2	53	FPNPT12G	44	LPM25B	47		

THE MOST FLEXIBLE DRIVE CABLE IN ITS CLASS



Lutze DRIVEFLEX® XLPE (C) PVC, Shielded A216

Flexible VFD & Motor Supply Cable with 4 conductors including one full size ground. Suitable for all generic drive applications with classic three phase wiring.



Lutze DRIVEFLEX® XLPE (C) Servo I PVC, Shielded A217

Flexible VFD & Motor Supply Cable with 4 conductors including one full size ground, plus one twisted shielded pair for feedback. Suitable for servo systems such as Rockwell, Siemens etc., which require one control pair.



Lutze DRIVEFLEX® XLPE (C) Servo II PVC, Shielded A218

Flexible VFD & Motor Supply Cable with 4 conductors including one full size ground, plus two twisted shielded pairs for feedback. Suitable for servo systems such as Rockwell, Indramat etc., which require two control pairs.



Lutze DRIVEFLEX® XLPE (C) Symmetrical Grounds PVC, Shielded A219

Flexible VFD & Motor Supply Cable with 3 symmetrical grounds. The symmetry in the conductor design reduces motor frame voltage induced by high motor current. Symmetrical ground cable is recommended by ABB and Rockwell for larger horsepower motors.



DRIVEFLEX®

THE MOST FLEXIBLE DRIVE CABLE IN ITS CLASS



- for VFD and motor applications ■
- for harsh industrial environments ■
- for operating conditions with high interference noise levels ■
- specially formulated jacket for oil resistance and easy strip design ■
- sunlight resistant ■
- XLPE ■
- thick wall insulation with low capacitance ■
- designed for long cable runs ■
- NFPA 79 ■
- compliant for wiring of industrial machinery ■
- TC-ER ■
- for use with cable trays without conduit ■
- WTTC ■
- for use in wind turbines ■
- UL listed "Flexible VFD Servo Cable" ■



Lutze Product Overview

Cable Solutions

Flexible and continuous flexing cables for machine control and power distribution applications. Wire management for industrial automation.



Cabinet Solutions

Lutze LSC Wiring System saves space, time and cost. LSC is an aluminum frame that replaces the traditional back panel and wire duct for mounting and wiring of electrical components in a control enclosure. LSC shortens wiring times and improves heat dissipation.



Automation Solutions

Lutze offers din rail mountable compact power supplies, industrial Ethernet switches, and intelligent circuit protection with the Lutze LOCC-Box.



Transportation Solutions

Lutze supplies high-tech electronic modules for railway applications. Lutze control modules are proven to be long lasting and highly reliable in applications with extended temperature range, vibration and other harsh external influences.



LUTZE INC.
13330 South Ridge Drive
Charlotte, NC 28273
Tel.: (704) 504-0222
Fax: (704) 504-0223
info@lutze.com

**From products
to solutions!**

- Flexible Cable and
Wire Management

- Compact Power
Supplies

- Lutze LSC-Wiring
Systems

- Ethernet
Connectivity

- Interface
Technology

- Lutze LOCC-Box
Current Control

www.lutze.com

1-800-447-2371

