



**AUTOMATION
& FACTORY
SOLUTIONS**

WIRE & CABLE CATALOG



ADVANCED
CONTROLS &
DISTRIBUTION



C&E ADVANCED
TECHNOLOGIES





TABLE OF CONTENTS

Machine Tool & Portable Wire

- 1** MTW – Machine Tool Wire
- 2** TFFN / THHN – Thermoplastic Flexible Fixture Nylon / Thermoplastic High Heat-resistant Nylon
- 3** SOOW – Portable Cord
- 4** Welding Cable - Ethylene Propylene Rubber (EPDM)



Flexible Power & Control Cables

- 5** Standard Flex Power Cable – Black TPE Jacket
- 6** Standard Flex Control Cable – Grey TPE Jacket
- 7-8** ÖLFLEX® 190 / 190 CY – Flexible Power & Control Cable
- 9-10** ÖLFLEX® FD 890 / 890 CY – Continuous Flex Power & Control Cable
- 11-12** ÖLFLEX® TRAY II / TRAY II CY – Tray-Rated Cable



Flexible Variable Frequency Drive Cables

- 13** ÖLFLEX® VFD 1XL – Flexible Cable for Drives, Motors & Assemblies
- 14** VFD TKG FLX SYMMETRICAL – Symmetrical Flexible Cable for Drives, Motors & Assemblies

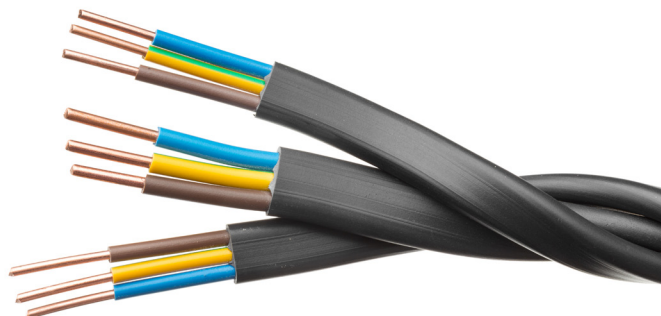


Industrial Ethernet Cables

- 15** ETHERLINE® 2 Pair CAT.5/CAT.5e – Continuous Flex
- 16** ETHERLINE® 4 Pair CAT.5e – Stationary
- 17** ETHERLINE® 4 Pair CAT.5e – Flexible
- 18** ETHERLINE® 4 Pair CAT.5e – Continuous Flex
- 19** ETHERLINE® 4 Pair CAT.6 – Continuous Flex
- 20** ETHERLINE® TRAY CAT.7 – Stationary, Tray-Rated

Cord Grips

- 21-23** RSR (Straight Series) – Aluminum Cord Grips (Straight)
- 24** RSR (90° Series) – Aluminum Cord Grips (90 Degree)





Overview

Annealed, bare copper conductor with a Polyvinyl Chloride (PVC) jacket. Commonly used in control cabinets, machine tool applications, fixture wire, and appliance wire applications.

Approvals

UL:

- Standard 1063, subject 758
- VW-1 flame test
- Style 1015

CSA:

- 22.2 No. 210

RoHS:

- Compliant

Technical Data

Installation material: Polyvinyl chloride (PVC)

Temperature rating: -40°C to +105°C

Nominal voltage: 600V RMS max
1,000V AWM style 1032

DC resistance per conductor @ 20°C: 1.59 ohms/ 1M' nominal

Ampacity per NFPA 79 table 12.5.1: 29 amps max

Color code:

00 - Clear	06 - Brown	12 - Tan
01 - Black	07 - Blue	13 - Light Blue
02 - White	08 - Orange	14 - Beige
03 - Red	09 - Gray	15 - Maroon
04 - Green	10 - Purple	16 - Silver
05 - Yellow	11 - Pink	17 - Natural



18 AWG (16XBC) 1.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-18G-XX	0.108	2.7	9	See color code

16 AWG (26XBC) 1.50mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-16G-XX	0.120	3.0	13	See color code

14 AWG (19XBC) 2.50mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-14G-XX	0.136	3.4	19	See color code

12 AWG (19XBC) 4.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-12G-XX	0.155	3.9	27	See color code

10 AWG (19XBC) 6.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-10G-XX	0.180	4.6	41	See color code

8 AWG (19XBC) 10.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-8G-XX	0.244	6.2	69	See color code

6 AWG (19XBC) 16.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-6G-XX	0.314	8.0	111	See color code

4 AWG (19XBC) 25.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-4G-XX	0.354	9.0	165	See color code

2 AWG (19XBC) 35.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-2G-XX	0.417	10.6	249	See color code

1/0 (19XBC) 50.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-1/0-XX	0.565	14.3	450	See color code

2/0 (19XBC) 70.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-2/0-XX	0.620	15.7	551	See color code

3/0 (19XBC) 95.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-3/0-XX	0.680	17.3	672	See color code

4/0 (19XBC) 120.00mm²

Part No.	Cable Ø in	mm	lbs/1,000ft	Color
MTW-4/0-XX	0.730	18.5	820	See color code

XX - wire color (refer to color code)

*Stripes available upon request

TFFN / THHN Wire

Thermoplastic Flexible Fixture Nylon / Thermoplastic High Heat-resistant Nylon



Overview

Annealed, bare copper conductor with integral insulation and jacket. Commonly used in construction of industrial, residential and commercial building.

Approvals

- UL Standards 83 & 758
- CSA C22.2 No. 75

Technical Data

Temperature Rating:

TFFN:	-20°C to +90°C
THHN:	-20°C to +105°C

Nominal Voltage:

600V RMS Max
1,000V AWM 1452

Impedance:

TFFN:	43.08 Ohms/ 1M' Nominal
THHN:	41.08 Ohms/ 1M'

DC Resistance per
Conductor @ 20°C:

TFFN:	4.08 Ohms/ 1M' Nominal
THHN:	2.52 Ohms/ 1M' Nominal

Color Code:

00 - Clear	06 - Brown	12 - Tan
01 - Black	07 - Blue	13 - Light Blue
02 - White	08 - Orange	14 - Beige
03 - Red	09 - Gray	15 - Maroon
04 - Green	10 - Purple	16 - Silver
05 - Yellow	11 - Pink	17 - Natural

TFFN



18 AWG (16/30) 1.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
• TFFN-18G- XX	0.088	2.2	8

16 AWG (26/30) 1.5mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
• TFFN-16G- XX	0.100	2.5	11

THHN



14 AWG (19/27) 2.5mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-14G- XX	0.112	2.8	16

12 AWG (19/25) 4.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-12G- XX	0.130	3.3	24

10 AWG (19/23) 6.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-10G- XX	0.164	4.2	38

8 AWG (19/21) 10.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-8G- XX	0.220	5.6	64

6 AWG (19/.0372) 16.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-6G- XX	0.256	6.5	98

4 AWG (19/.0469) 25.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-4G- XX	0.325	8.2	155

2 AWG (19/.0591) 35.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-2G- XX	0.386	9.8	236

1/0 (19/.0664) 50.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-1/0- XX	0.484	12.3	372

2/0 (19/.0837) 70.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-2/0- XX	0.529	13.4	462

3/0 (19/.0940) 95.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-3/0- XX	0.579	14.7	575

4/0 (19/.1055) 120.0mm²

Part No.	(in)	Wire Ø (mm)	lbs/1,000ft
THHN-4/0- XX	0.635	16.1	716

XX - WIRE COLOR (refer to color code)

*Stripes available upon request



18 AWG (16/30) 1.02mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-1802-01	2	0.345	8.8	75	Black
SO-1803-01	3	0.365	9.3	87	Black
SO-1804-01	4	0.390	9.9	102	Black
SO-1805-01	5	0.465	11.8	116	Black

16 AWG (26/30) 1.31mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-1602-01	2	0.370	9.4	78	Black
SO-1603-01	3	0.390	9.9	105	Black
SO-1604-01	4	0.425	10.8	120	Black
SO-1605-01	5	0.495	12.6	143	Black

14 AWG (41/30) 2.08mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-1402-01	2	0.500	12.7	151	Black
SO-1403-01	3	0.530	13.5	176	Black
SO-1404-01	4	0.570	14.5	210	Black
SO-1405-01	5	0.668	17.0	272	Black

12 AWG (65/30) 3.31mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-1202-01	2	0.575	14.6	201	Black
SO-1203-01	3	0.600	15.2	235	Black
SO-1204-01	4	0.650	16.5	291	Black
SO-1205-01	5	0.713	18.1	338	Black

10 AWG (104/30) 5.26mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-1002-01	2	0.625	15.9	245	Black
SO-1003-01	3	0.660	16.8	307	Black
SO-1004-01	4	0.710	18.0	360	Black
SO-1005-01	5	0.770	19.6	440	Black

8 AWG (133/29) 8.37mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-0803-01	3	0.720	21.7	491	Black
SO-0804-01	4	0.780	24.6	640	Black
SO-0805-01	5	0.860	27.3	690	Black

6 AWG (133/27) 13.30mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-0603-01	3	0.800	24.9	695	Black
SO-0604-01	4	0.890	27.7	850	Black
SO-0605-01	5	0.945	31.1	930	Black

4 AWG (133/25) 21.20mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-0403-01	3	0.940	29.0	950	Black
SO-0404-01	4	1.010	32.0	1,100	Black
SO-0405-01	5	1.135	36.0	1,160	Black

2 AWG (133/23) 33.60mm²

Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Jacket Color
		in	mm		
SO-0203-01	3	1.090	33.7	1,310	Black
SO-0204-01	4	1.170	37.1	1,590	Black
SO-0205-01	5	1.433	40.9	1,890	Black

Overview

Stranded, annealed bare copper conductors; color coded, oil resistant Ethylene Propylene (EPDM) insulation; paper tape applied between the conductor and insulation; Water, sunlight and oil resistant, flame-retardant Chlorinated Polyethylene (CPE) jacket.

Approvals UL/CSA ratings for 18 AWG – 8 AWG. For 6 AWG – 2 AWG, add “CSA” at the end of the part number for UL/CSA approval

- UL: • Standard 62
- CSA: • Standard C22.2 No.49
• FT2 flame test
- NEC: • Article 501.140 class I div. 2
• Article 400
- MSHA: • Approved

Technical Data

- Minimum bend radius for installation: 10 x cable diameter
- Temperature rating: -40°C to +90°C
- Nominal voltage: 600V RMS max
- Conductor stranding: Class K per ASTM B 174
- Color code:
 - 2C - black, white
 - 3C - black, white, green
 - 4C - black, white, red, green
 - 5C - black, white, red, green, orange



Overview

Annealed, bare copper conductor with a Ethylene Propylene Rubber (EPDM) jacket. Commonly used for secondary voltage resistance welding cable leads, temporary power uses, and electric welders.

Features

- *Good flexibility
- *Abrasion resistant

Technical Data

Installation material:	Ethylene Propylene Rubber (EPDM)
Temperature rating:	-50°C to +105°C
Nominal voltage:	600V max

6 AWG (259/30) 16.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-6G-01	0.305	7.7	116	0.440	Black
WC-6G-03	0.305	7.7	116	0.440	Red
WC-6G-04	0.305	7.7	116	0.440	Green

4 AWG (385/30) 25.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-4G-01	0.340	8.6	154	0.263	Black
WC-4G-03	0.340	8.6	154	0.263	Red
WC-4G-04	0.340	8.6	154	0.263	Green
WC-4G-05	0.340	8.6	154	0.263	Yellow
WC-4G-07	0.340	8.6	154	0.263	Blue

2 AWG (651/30) 35.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-2G-01	0.420	10.7	252	0.167	Black
WC-2G-03	0.420	10.7	252	0.167	Red
WC-2G-04	0.420	10.7	252	0.167	Green
WC-2G-05	0.420	10.7	252	0.167	Yellow
WC-2G-07	0.420	10.7	252	0.167	Blue

1 AWG (798/30) 50.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-1G-01	0.498	12.6	321	0.133	Black
WC-1G-03	0.498	12.6	321	0.133	Red
WC-1G-04	0.498	12.6	321	0.133	Green
WC-1G-05	0.498	12.6	321	0.133	Yellow
WC-1G-07	0.498	12.6	321	0.133	Blue

1/0 (1026/30) 50.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-1/0-01	0.525	13.3	376	0.112	Black
WC-1/0-03	0.525	13.3	376	0.112	Red
WC-1/0-04	0.525	13.3	376	0.112	Green
WC-1/0-05	0.525	13.3	376	0.112	Yellow
WC-1/0-07	0.525	13.3	376	0.112	Blue

2/0 (1254/30) 70.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-2/0-01	0.570	14.5	475	0.084	Black
WC-2/0-03	0.570	14.5	475	0.084	Red
WC-2/0-04	0.570	14.5	475	0.084	Green
WC-2/0-05	0.570	14.5	475	0.084	Yellow
WC-2/0-07	0.570	14.5	475	0.084	Blue

3/0 (1651/30) 95.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-3/0-01	0.635	16.1	601	0.067	Black
WC-3/0-03	0.635	16.1	601	0.067	Red
WC-3/0-04	0.635	16.1	601	0.067	Green

4/0 (2052/30) 120.00mm

Part No.	Cable Ø		lbs/1,000ft	DC resistance @ 20°C (Ohms/1M')	Jacket Color
	in	mm			
WC-4/0-01	0.695	17.7	763	0.052	Black
WC-4/0-03	0.695	17.7	763	0.052	Red
WC-4/0-04	0.695	17.7	763	0.052	Green
WC-4/0-07	0.695	17.7	763	0.052	Orange

Standard Flex Power Cable

Black TPE Jacket



Approvals

- UL:**
- TPEN/TPE
 - TC-ER, TFFN
 - DRY OIL RES I/II
 - SUN RES
 - DIR BUR
 - FT4/IEEE 1202 or MTW flexing
 - Standard 66, 1277
 - 1581 vertical tray flame test
- CSA:**
- AWM I/II A/B 105°C W75 1000V (-40°C)
 - FT4 Flame Test
 - c(UL) CIC/TC FT4
- NEC:**
- Article 336
- RoHS:**
- Complies with EU Dir. 2011/65/EC (RoHS-2)



Technical Data

Minimum bend radius for installation:
5 x cable diameter

Temperature rating:
-40° C to +90° C

Nominal voltage:
600V RMS max
1,000V TC wind turbine (WTTC)

DC resistance per conductor @ 20° C:
4.18 ohms/ 1M' nominal

Performance:
Over one million continuous rolling flex cycles at a minimum bend radius of 10x cable diameter.

Color code:
Black conductors w/ white ink print; green/yellow ground

Overview

Finely stranded bare copper conductors cabled with a non-woven polyester wrap, clear mylar and an oil/sunlight resistant black TPE overall jacket. Used in machine tool machinery, food & beverage, processing equipment, automotive and machine wiring.



14 AWG (41/30) 2.08mm ²					
Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Conductor Color
		in	mm		
SF-1404-BK01	4	0.380	9.7	97	Black
SF-1405-BK01	5	0.405	10.3	124	Black
12 AWG (65/30) 3.31mm ²					
Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Conductor Color
		in	mm		
SF-1204-BK01	4	0.422	10.7	136	Black
SF-1205-BK01	5	0.484	12.3	173	Black
10 AWG (104/30) 5.26mm ²					
Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Conductor Color
		in	mm		
SF-1004-BK01	4	0.539	13.7	220	Black
8 AWG (168/30) 8.36mm ²					
Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Conductor Color
		in	mm		
SF-0804-BK01	4	0.666	16.9	343	Black
6 AWG (266/30) 13.30mm ²					
Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Conductor Color
		in	mm		
SF-0604-BK01	4	0.750	19.0	501	Black
4 AWG (420/30) 21.15mm ²					
Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Conductor Color
		in	mm		
SF-0404-BK01	4	0.973	24.7	825	Black
2 AWG (665/30) 33.60mm ²					
Part No.	No. of Conductors	Cable Ø		lbs/1,000ft	Conductor Color
		in	mm		
SF-0203-BK01	3	0.995	25.3	915	Black
SF-0204-BK01	4	1.221	31.0	1,193	Black

Standard Flex Control Cable

Grey TPE Jacket



Grey TPE Jacket

Overview



Finely stranded bare copper conductors cabled with a non-woven polyester wrap, clear mylar and an oil/sunlight resistant grey TPE overall jacket. Used in machine tool machinery, food & beverage, processing equipment, automotive and machine wiring.

Approvals

- UL: TC-ER, MTW, THHN/THWN
- UL Standard 1277
- UL 1581 Vertical Tray Flame Test
- CSA: AWM I/II A/B 105C W75, 1000V, -40C
- CSA FT4 Flame Test
- NEC Artical 336

Technical Data

Minimum Bend Radius
for installation: 5 x cable diameter

Temperature Rating: -40°C to +90°C

Nominal Voltage: 600V RMS Max
1,000V TC Wind Turbine (WTTC)

DC Resistance per
Conductor @ 20°C: 4.18 Ohms/ 1M' Nominal

Color Code:

- Blue conductors w/ black ink print; green/yellow ground; #2 white w/ blue stripe
- Red conductors w/ white ink print; green/yellow ground

Part No.	# of Cond.	O.D.		lbs/1,000ft	Cond. Color
		in	mm		
16 AWG (26/30) 1.31mm ²					
SF-1607-BL09-TPE	7	0.415"	10.5	110	Blue
SF-1611-BL09-TPE	11	0.510"	13.0	163	Blue
SF-1611-RD09-TPE	11	0.510"	13.0	163	Red
SF-1613-BL09-TPE	13	0.550"	14.0	195	Blue
SF-1619-BL09-TPE	19	0.643"	16.3	285	Blue
SF-1625-BL09-TPE	25	0.750"	19.0	375	Blue
SF-1625-RD09-TPE	25	0.750"	19.0	375	Red
SF-1633-BL09-TPE	33	0.800"	20.3	450	Blue
SF-1633-RD09-TPE	33	0.800"	20.3	450	Red
SF-1643-BL09-TPE	43	0.960"	24.4	625	Blue
SF-1649-BL09-TPE	49	1.000"	25.4	760	Blue



ÖLFLEX® 190 is a multi-conductor cable with a highly oil-, coolant-, and solvent-resistant jacket for control and power applications in an industrial environment. It is designed for use in all electrical equipment under dry, damp, and wet conditions. ÖLFLEX® 190 is also UL TC approved so it can be routed in tray as well. ÖLFLEX® 190 CY is a shielded version for EMI and RFI protection.

Recommended Applications

CNC machining centers; grinding machines; bottling equipment; conveyors; processing equipment; assembly lines; control panels

Approvals



Unshielded Construction

Conductors: Finely stranded bare copper

Insulation: Specially formulated PVC

Jacket: Specially formulated thermoplastic polymer; gray

Shielded Construction

Conductors: Finely stranded bare copper

Insulation: Specially formulated PVC

Shielding: PVC inner jacket; tinned copper braid (85% coverage)

Jacket: Specially formulated thermoplastic polymer; gray

Application Advantage

- Extremely oil-resistant (Oil Res I & II)
- Meets NFPA 79 machinery wiring standard
- Very flexible and number-coded for easy routing and termination
- Round jacket for optimal seal with a SKINTOP® strain relief cable gland

Cable Attributes		page 640	
OIL	OR-04	FLAME	FR-03
MOTION	WT-02	MECH.	MP-03

Complete the Installation	
SKINTOP® Strain Relief	EPIC® Connectors

Technical Data

Minimum Bend Radius:

- for installation: 4 x cable diameter
- shielded: 6 x cable diameter

Temperature Range:

- UL TC: -25°C to +90°C
- for stationary use: -40°C to +105°C
- for flexible use: -25°C to +90°C

Nominal Voltage:

- UL PLTC: 300V
- UL TC: 600V
- UL WTTC: 1000V
- UL/CSA AWM: 1000V

Test Voltage:

2000V

Conductor Stranding:

- 20 - 6 AWG: Class 5 fine wire*
- 4 AWG and larger: Class K fine wire
- * 18 AWG meets only Class 5 cross section and DC resistance

Color Code:

Black with white numbers, plus green/yellow ground

Approvals:

UL: TC-ER per UL 1277
WTTC per UL 2277
PLTC-ER per UL 13 (20 AWG)
AWM 2587 & 21098 (Oil)
Attributes: UL Oil Res I/II
90°C Wet; 90°C Dry
Sunlight Resistant
Direct Burial
NFPA 79
Canada: CSA AWM I/II A/B FT4
CSA C22.2 210.2
Additional: Torsion rated for wind market
(± 90°/m) & (± 150°/m)
(18 - 2 AWG)
CE & RoHS

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread
20 AWG (0.50 mm²)						14 AWG (2.50 mm²)					
602002*†	2	0.253 6.4	7	40	S1109	601402*†	2	0.337 8.6	33	88	S1111
602003	3	0.265 6.7	10	42	S1109	601403	3	0.356 9.0	49	93	S1111
602004	4	0.285 7.2	13	51	S1111	601404	4	0.386 9.8	65	121	S1113
602005	5	0.308 7.8	17	60	S1111	601405	5	0.421 10.7	81	145	S1113
602007	7	0.331 8.4	23	82	S1111	601407	7	0.457 11.6	113	192	S1113
602009	9	0.409 10.4	30	100	S1113	601409	9	0.609 15.5	145	317	S1121
602012	12	0.421 10.7	39	168	S1113	601412	12	0.628 16.0	194	401	S1121
602018	18	0.487 12.4	59	198	S1116	601418	18	0.729 18.5	290	575	S1129
602025	25	0.586 14.9	82	242	S1121	601425	25	0.872 22.1	404	860	S1129
18 AWG (1.00 mm²)						12 AWG (4 mm²)					
601802*†	2	0.277 7.0	13	42	S1111	601203	3	0.417 10.6	78	156	S1113
601803	3	0.291 7.4	20	44	S1111	601204	4	0.454 11.5	104	198	S1113
601804	4	0.314 8.0	26	55	S1111	601205	5	0.497 12.6	129	238	S1116
601805	5	0.340 8.6	33	64	S1111	601207	7	0.573 14.6	181	363	S1121
601807	7	0.367 9.3	46	84	S1111	601211	11	0.745 18.9	284	397	S1129
601809	9	0.454 11.5	59	119	S1113	10 AWG (6 mm²)					
601812	12	0.471 12.0	79	141	S1116	601003	3	0.466 11.8	116	223	S1116
601818	18	0.579 14.7	118	207	S1121	601004	4	0.509 12.9	155	267	S1116
601825	25	0.656 16.7	164	278	S1121	601005	5	0.590 15.0	194	322	S1121
601834	34	0.761 19.3	206	575	S1129	8 AWG (10 mm²)					
601841	41	0.873 22.2	250	680	S1129	600804	4	0.664 16.9	258	436	S1129
601850	50	0.927 23.5	305	825	S1129	600805	5	0.728 18.5	323	525	S1129
16 AWG (1.50 mm²)						6 AWG (16 mm²)					
601602*†	2	0.303 7.7	20	57	S1111	600604	4	0.870 22.1	413	699	S1129
601603	3	0.319 8.1	29	62	S1111	600605	5	0.955 24.3	516	842	S1129
601604	4	0.345 8.8	39	75	S1111	4 AWG (25 mm²)					
601605	5	0.375 9.5	49	90	S1111	600404	4	1.005 25.5	515	950	S1136
601607	7	0.406 10.3	68	121	S1113	600405	5	1.105 28.1	645	1200	S1136
601609	9	0.509 12.9	88	174	S1116	2 AWG (35 mm²)					
601612	12	0.557 14.1	112	209	S1121	600204	4	1.178 29.9	876	1405	S1136
601618	18	0.644 16.4	175	298	S1121	600205	5	1.300 33.0	1129	1752	S1248
601625	25	0.733 18.6	242	417	S1129						
601634	34	0.892 22.7	296	760	S1129						
601641	41	0.974 24.7	357	875	S1236						
601650	50	1.036 26.3	437	1020	S1136						
601661	61	1.098 27.9	530	1180	S1136						

* 2c cable does not include ground

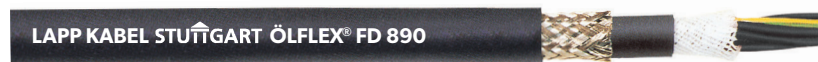
† Part numbers are not -ER rated

ÖLFLEX® 190 CY

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread
20 AWG (0.50 mm²)						14 AWG (2.50 mm²)					
602002CY*†	2	0.329 8.4	25	66	53112220	601403CY	3	0.432 11.0	75	148	53112230
602003CY	3	0.341 8.7	30	82	53112220	601404CY	4	0.462 11.7	93	181	53112240
602004CY	4	0.361 9.2	35	88	53112220	601405CY	5	0.497 12.6	115	218	53112240
602005CY	5	0.384 9.8	41	99	53112230	601407CY	7	0.533 13.5	147	282	53112250
602007CY	7	0.407 10.3	51	112	53112230	601412CY	12	0.727 18.5	253	516	53112260
602012CY	12	0.497 12.6	73	181	53112240	601418CY	18	0.884 22.5	361	741	53112260
602025CY	25	0.678 17.2	139	295	53112260	12 AWG (4 mm²)					
18 AWG (1.00 mm²)						601203CY	3	0.500 12.7	124	227	53112240
601802CY*†	2	0.353 9.0	28	75	53112220	601204CY	4	0.585 14.9	154	311	53112250
601803CY	3	0.367 9.3	40	82	53112230	601205CY	5	0.628 16.0	180	359	53112250
601804CY	4	0.390 9.9	48	106	53112230	601207CY	7	0.672 17.1	234	494	53112260
601805CY	5	0.416 10.6	57	123	53112230	10 AWG (6 mm²)					
601807CY	7	0.443 11.3	94	139	53112240	601003CY	3	0.565 14.4	164	311	53112250
601812CY	12	0.586 14.9	153	229	53112250	601004CY	4	0.608 15.4	208	386	53112250
601818CY	18	0.678 17.2	216	317	53112260	601005CY	5	0.689 17.5	255	474	53112260
601825CY	25	0.764 19.4	226	436	53112260	601007CY	7	0.740 18.8	335	639	53112260
16 AWG (1.50 mm²)						8 AWG (10 mm²)					
601603CY	3	0.395 10.0	52	115	53112230	600804CY	4	0.763 19.4	324	574	53112260
601604CY	4	0.421 10.7	66	128	53112230	6 AWG (16 mm²)					
601605CY	5	0.451 11.5	76	150	53112240	600604CY	4	0.994 25.2	494	1115	53112270
601607CY	7	0.482 12.2	98	181	53112240						
601612CY	12	0.656 16.7	167	311	53112250						
601618CY	18	0.743 18.9	235	456	53112260						
601625CY	25	0.888 22.6	313	639	53112260						

* 2c cable does not include ground

† Part numbers are not -ER rated



ÖLFLEX® FD 890 is a time-tested, performance-proven multi-conductor cable designed for continuous flex applications. Fine stranding and specially formulated compounds optimize flexing life and provide excellent resistance to mineral oils, synthetic oils, and water-based coolants. ÖLFLEX® FD 890 CY is a shielded version available with an overall tinned copper braid. This is recommended when electrical interference needs to be suppressed.

Recommended Applications

Cable tracks & power chains; gantry robots; pick and place units; conveyor systems; machine tool and other continuous flexing applications

Approvals



Unshielded Construction

Conductors: Finely stranded bare copper

Insulation: Specially formulated PVC; dry lubricant; non-woven wrapping over outer layer

Jacket: Specially formulated PVC; black

Shielded Construction

Conductors: Finely stranded bare copper

Insulation: Specially formulated PVC; dry lubricant; non-woven wrapping over outer layer

Inner Jacket: PVC

Shielding: Tinned copper braid (85% coverage)

Jacket: Specially formulated PVC; black

Application Advantage

- Meets Oil Res I/II, resistant to harsh environments for long service life
- Pressure-extruded jacket for precision connectorization
- Passes UL 1277 impact and crush tests

Cable Attributes		page 640	
OIL	OR-04	FLAME	FR-02
MOTION	CF-03	MECH.	MP-02

Complete the Installation	
SKINTOP® Strain Relief	EPIC® Connectors

ÖLFLEX® CONNECT Solution	
	ÖLFLEX® CONNECT CHAIN

Technical Data

	Minimum Bend Radius:			Color Code:	Black with white numbers, plus green/yellow ground
	- for continuous flexing	7.5 x cable diameter			
	- shielded:	10 x cable diameter			
	Temperature Range:			Approvals:	UL: AWM 2587
	- for continuous flexing	-5°C to +90°C			AWM 21098 (Oil)
	- for stationary use:	-25°C to +90°C		Attributes:	UL Oil Res I/II
	Nominal Voltage:	600V			Sunlight resistant
					NFPA 79
	Test Voltage:	2000V			UL 758 80°C Oil Test
				Canada:	CSA AWM I/II A/B FT1
	Conductor Stranding:	Better than Class 6 super fine wire			CSA C22.2, 210.2
				Additional:	CE & RoHS

ÖLFLEX® FD 890

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread
20 AWG (0.50 mm²)						14 AWG (2.50 mm²)					
8920034	3	0.264 6.7	10	43	S2109	8914044	4	0.456 11.6	67	148	S2113
8920044	4	0.291 7.4	16	53	S2111	8914074	7	0.614 15.6	117	227	S2121
8920054	5	0.323 8.2	19	68	S2111	12 AWG (4 mm²)					
8920074	7	0.382 9.7	27	75	S2113	8912044	4	0.531 13.5	104	208	S2121
8920124	12	0.457 11.6	39	124	S2113	8912074	7	0.740 18.8	181	335	S2129
8920184	18	0.539 13.7	69	183	S2121	10 AWG (6 mm²)					
8920254	25	0.677 17.2	96	265	S2121	8910044	4	0.640 16.3	155	275	S2121
18 AWG (1.00 mm²)						8 AWG (10 mm²)					
8918034	3	0.287 7.3	18	46	S2111	8908044	4	0.756 19.2	259	481	S2129
8918044	4	0.327 8.3	24	60	S2111	6 AWG (16 mm²)					
8918054	5	0.355 9.0	29	74	S2111	8906044	4	0.909 23.1	413	709	S2129
8918074	7	0.429 10.9	41	102	S2113	4 AWG (25 mm²)					
8918124	12	0.500 12.7	70	158	S2116	8904044	4	1.059 26.9	646	1005	S2136
8918154	15	0.559 14.2	88	202	S2121	2 AWG (35 mm²)					
8918184	18	0.614 15.6	105	234	S2121	8902044	4	1.252 31.8	904	1240	S2248
8918254	25	0.763 19.4	146	336	S2129						
8918344	34	0.826 21.0	211	434	S2129						
16 AWG (1.50 mm²)											
8916034	3	0.323 8.2	30	79	S2111						
8916044	4	0.358 9.1	39	106	S2111						
8916054	5	0.393 10.0	49	132	S2113						
8916074	7	0.480 12.2	68	138	S2116						
8916124	12	0.555 14.1	117	214	S2121						
8916184	18	0.685 17.4	175	323	S2129						
8916254	25	0.854 21.7	242	505	S2129						
8916344	34	0.925 23.5	329	623	S2129						
8916504	50	1.094 27.8	437	880	S2136						

ÖLFLEX® FD 890 CY

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread
20 AWG (0.50 mm²)						14 AWG (2.50 mm²)					
8920034S	3	0.342 8.7	27	82	53112220	8914044S	4	0.551 14.0	103	181	53112250
8920044S	4	0.370 9.4	38	97	53112230	8914074S	7	0.709 18.0	175	347	53112260
8920054S	5	0.409 10.4	44	108	53112230	8914184S	18	1.012 25.7	385	762	53112270
8920074S	7	0.468 11.9	52	137	53112240	12 AWG (4 mm²)					
8920124S	12	0.551 14.0	68	214	53112250	8912044S	4	0.650 16.5	160	302	53112250
8920184S	18	0.657 16.7	112	293	53112250	8912074S	7	0.858 21.8	251	194	53112260
8920254S	25	0.803 20.4	158	421	53112260	10 AWG (6 mm²)					
18 AWG (1.00 mm²)						8910044S	4	0.752 19.1	215	333	53112260
8918034S	3	0.375 9.5	40	91	53112230	8 AWG (10 mm²)					
8918044S	4	0.419 10.6	48	112	53112230	8908044S	4	0.882 22.4	330	701	53112260
8918054S	5	0.447 11.4	57	131	53112240	6 AWG (16 mm²)					
8918074S	7	0.528 13.4	76	198	53112240	8906044S	4	1.066 27.1	498	986	53112270
8918124S	12	0.636 16.2	125	271	53112250						
8918184S	18	0.719 18.3	162	357	53112260						
8918254S	25	0.887 22.5	218	538	53112260						
8918344S	34	0.986 25.0	211	660	53112270						
16 AWG (1.50 mm²)											
8916034S	3	0.409 10.4	54	121	53112230						
8916044S	4	0.444 11.3	68	154	53112240						
8916054S	5	0.480 12.2	81	170	53112240						
8916074S	7	0.598 15.2	125	258	53112250						
8916124S	12	0.673 17.1	174	366	53112260						
8916184S	18	0.826 21.0	239	493	53112260						
8916254S	25	0.996 25.3	320	687	53112270						
8916344S	34	1.067 27.1	446	769	53112270						

LAPP KABEL STUTTGART ÖLFLEX® TRAY II

LAPP KABEL STUTTGART ÖLFLEX® TRAY II CY

ÖLFLEX® TRAY II is an industrial grade tray cable with superior oil performance for long cable life. It has a pressure-extruded jacket and fine copper stranding for excellent flexibility, making it much easier to pull through tray. With UL TC-ER approval, no conduit is needed so you can reduce material costs along with saving on labor. ÖLFLEX® TRAY II CY is designed with foil tape and tinned copper braid shield for improved effectiveness.

Recommended Applications

Industrial plant expansions; automotive plants; tray wiring; anywhere VNTC® cables are used

Approvals



Unshielded Construction

Conductors: Finely stranded bare copper

Insulation: Specially formulated PVC/nylon

Jacket: Specially formulated thermoplastic polymer; black

Shielded Construction

Conductors: Finely stranded bare copper

Insulation: Specially formulated PVC/nylon

Shielding: Foil tape; tinned copper braid (70% coverage)

Jacket: Specially formulated thermoplastic polymer; black

Application Advantage

- Oil-resistant pressure-extruded jacket improves flexibility
- Easier to pull than standard tray cables; lower labor costs
- UL TC-ER reduces material costs; no conduit is needed
- Black numbered conductors for easy identification
- Improved shielding effectiveness

Cable Attributes		page 640	
OIL	OR-03	FLAME	FR-03
MOTION	WT-02	MECH.	MP-03

Complete the Installation	
SKINTOP® Strain Relief	EPIC® Connectors

Technical Data

Minimum Bend Radius:

- for installation:
 - < 1 AWG: 4 x cable diameter
 - 1 AWG: 6 x cable diameter
- shielded: 6 x cable diameter

Temperature Range:

- UL/CSA TC: -25°C to +90°C
- for stationary use: -40°C to +105°C
- for flexible use: -25°C to +105°C

Nominal Voltage:

- UL/CSA TC: 600V
- UL WT/CSA AWM: 1000V

Test Voltage:

- up to 1 AWG: 2000V
- 1 AWG & larger: 4000V

Conductor Stranding:

- 18-6 AWG: Class 5 fine wire*
 - 4-2 AWG: Class 5 fine wire
 - 1 AWG - 500 KCMIL: Stranded wire
- * 18 AWG meets only Class 5 cross section and DC resistance

Color Code:

Black with white printing, plus green/yellow ground

Approvals:

- UL: TC-ER per UL 1277
MTW per UL 1063
WTC per UL 2277
Submersible Pump (14 - 2 AWG)
PLTC-ER per UL 13 (18-12 AWG)
ITC-ER per UL 2250 (18-12 AWG)
DP-1 per UL 1690
AWM 20886 (18 - 2 AWG)
- Attributes: UL Oil Res I/II
75°C Wet; 90°C Dry
Sunlight Resistant
Direct Burial
NFPA 79
- NEC: Class 1 Division 2 per NEC Article 501
- Canada: c(UL) C/TC FT4 (18 - 4/0 AWG)
CSA AWM I/II A/B FT4
- Additional: Torsion Rated for Wind Market
(± 90°/m) & (± 150°/m)
(18 - 2 AWG)
CE & RoHS
MSHA: P-07-KA050016-MSHA
(shielded only)

ÖLFLEX® TRAY II

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread
18 AWG (1.00 mm²)						10 AWG (6 mm²)					
221803	3	0.297 7.5	20	57	S2111	221003	3	0.498 12.6	117	218	S2116
221804	4	0.320 8.1	26	66	S2111	221004	4	0.578 14.7	155	264	S2121
221805	5	0.346 8.8	33	77	S2111	221005	5	0.631 16.0	194	317	S2121
221807	7	0.373 9.5	46	99	S2111	221007	7	0.686 17.4	271	445	S2129
221809	9	0.429 10.9	59	112	S2113	8 AWG (10 mm²)					
221812	12	0.477 12.1	79	172	S2116	220804	4	0.703 17.9	258	384	S2129
221818	18	0.587 14.9	118	245	S2121	220805	5	0.772 19.6	323	518	S2129
221825	25	0.664 16.9	164	322	S2121	6 AWG (16 mm²)					
221850	50	0.939 23.9	303	646	S2129	220603	3	0.776 19.7	310	454	S2129
16 AWG (1.50 mm²)						220604	4	0.899 22.8	413	580	S2129
221603	3	0.325 8.3	29	68	S2111	220605	5	0.982 24.9	517	725	S2136
221604	4	0.351 8.9	39	84	S2111	4 AWG (21 mm²)					
221605	5	0.381 9.7	49	99	S2113	220403	3	0.999 25.3	386	919	S2136
221607	7	0.412 10.5	68	128	S2113	220404	4	1.094 27.8	544	952	S2136
221608	8	0.444 11.3	78	137	S2113	2 AWG (33.7 mm²)					
221609	9	0.476 12.1	88	172	S2116	220203	3	1.155 29.3	658	1085	S2136
221612	12	0.565 14.4	117	220	S2121	220204	4	1.272 32.3	859	1320	S2248
221616	16	0.621 15.8	155	271	S2121	1 AWG (42.5 mm²)					
221618	18	0.652 16.6	175	289	S2121	220104	4	1.440 35.9	1076	1780	S2142
221625	25	0.741 18.8	242	397	S2129	1/0 AWG (53.7 mm²)					
221634	34	0.904 23.0	296	540	S2129	221104	4	1.540 39.1	1349	2035	S2148
221641	41	0.986 25.0	357	626	S2136	2/0 AWG (67.7 mm²)					
221650	50	1.048 26.6	436	760	S2136	222204	4	1.662 42.2	1713	2475	S2148
221661	61	1.085 27.6	533	771	S2136	3/0 AWG (85.3 mm²)					
14 AWG (2.50 mm²)						223304	4	1.824 46.3	2073	3015	S2148
221403	3	0.362 9.2	49	88	S2111	4/0 AWG (107.6 mm²)					
221404	4	0.392 10.0	65	106	S2113	224404	4	1.990 50.5	2724	3835	53112080*
221405	5	0.427 10.8	81	128	S2113	250 KCMIL (127.1 mm²)					
221407	7	0.463 11.8	113	170	S2116	222504	4	2.145 54.5	3156	4405	531112511*
221409	9	0.571 14.5	146	225	S2121	350 KCMIL (177.9 mm²)					
221412	12	0.636 16.2	194	309	S2121	223504	4	2.482 63.0	4513	5995	53112510*
221418	18	0.737 18.7	290	439	S2129	500 KCMIL (254.1 mm²)					
221425	25	0.886 22.5	404	586	S2129	225004	4	2.795 71.0	6216	7915	53112512*
12 AWG (4 mm²)											
221203	3	0.423 10.7	78	126	S2113						
221204	4	0.460 11.7	104	152	S2113						
221205	5	0.503 12.8	129	187	S2116						
221207	7	0.581 14.8	181	258	S2121						

* SKINTOP® MS-M: nickel-plated brass with metric thread.

ÖLFLEX® TRAY II CY

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread
18 AWG (1.00 mm²)						12 AWG (4 mm²)					
2218030	3	0.322 8.2	29	79	53112220	2212040	4	0.491 12.5	126	212	53112240
2218040	4	0.346 8.8	38	93	53112220	2212050	5	0.568 14.4	157	260	53112250
2218050	5	0.371 9.4	45	99	53112230	2212070	7	0.612 15.5	209	335	53112250
2218070	7	0.398 10.1	59	130	53112230	10 AWG (6 mm²)					
2218120	12	0.508 12.9	101	223	53112240	2210040	4	0.609 15.5	183	370	53112250
2218180	18	0.618 15.7	145	295	53112250	2210050	5	0.662 16.8	224	412	53112250
2218250	25	0.695 17.7	238	386	53112260	2210070	7	0.717 18.2	308	575	53112260
16 AWG (1.50 mm²)						8 AWG (10 mm²)					
2216030	3	0.350 8.9	41	97	53112220	2208040	4	0.737 18.7	295	575	53112260
2216040	4	0.376 9.6	51	117	53112230	6 AWG (16 mm²)					
2216050	5	0.406 10.3	63	128	53112230	2206040	4	0.918 23.3	470	811	53112260
2216070	7	0.443 11.3	88	165	53112240	4 AWG (21 mm²)					
2216120	12	0.596 15.1	144	287	53112250	2204040	4	1.127 28.6	579	1331	53112270
2216180	18	0.683 17.3	210	346	53112260	2 AWG (33.7 mm²)					
2216250	25	0.772 19.6	280	430	53112260	2202040	4	1.309 33.2	950	1951	53112670*
14 AWG (2.50 mm²)											
2214030	3	0.387 9.8	62	121	53112230						
2214040	4	0.423 10.7	85	150	53112230						
2214050	5	0.458 11.6	101	181	53112240						
2214070	7	0.494 12.5	136	220	53112240						
2214120	12	0.667 16.9	225	399	53112250						
2214180	18	0.768 19.5	328	527	53112260						
2214250	25	0.917 23.3	461	705	53112260						

SKINTOP® MS-SC with metric thread.

LAPP KABEL STUTTGART ÖLFLEX® VFD 1XL

ÖLFLEX® VFD 1XL is a robust oil- and UV-resistant shielded motor cable for VFD drives. Enhanced electrical properties of XLPE insulation provide problem-free performance where precision control is critical. The new leaner design enables reduced cable diameters and increases flexibility. UL TC-ER rating allows for installation without conduit.

Recommended applications

VFD drive and motor connections; pumps; compressors; conveyors; elevators; extruders; presses; HVAC; on/off, slow down/speed up applications.

Approvals



Cable attributes page 648

OIL	OR-03	FLAME	FR-03
MOTION	CF-01*	MECH.	MP-03

Construction

Conductors: tinned copper fine wire

Insulation: XLPE (plus)

Shielding: barrier tape; triple layer foil tape (100% coverage); tinned copper braid (85% coverage); tinned copper drain wire

Jacket: specially formulated thermoplastic elastomer (TPE); black

Application advantage

- Low capacitance design
- UL TC-ER & c(UL) CIC/TC approved
- Industrial grade phthalate-free jacket design for harsh environments
- Reduces space and weight in tray
- No conduit required due to TC-ER rating
- Resistant to a wide range of disinfecting solutions used in the food, beverage, chemical and related industries, according to ECOLAB® PM 40-1 test procedure

Complete the installation



SKINTOP®
MS-M BRUSH



EPIC®
ULTRA HB

Technical data

Minimum bend radius:

for continuous flexing: 15 x OD
for installation: 7.5 x OD

Temperature range:

- UL/CSA: -25°C to +90°C
- for stationary use: -40°C to +90°C
- for flexible use: -25°C to +90°C

Nominal voltage:

- UL TC: 600V
- UL Flexible Motor Supply: 1000V
- UL/CSA AWM: 1000V

Test voltage:

- 16 AWG - 10 AWG: 3000V
- 8 AWG - 4 AWG: 3500V
- 2 AWG: 4000V

Conductor stranding:

- 16 AWG - 2 AWG Class K

Color code:

black with white numbers,
plus green/yellow ground

Approvals:

UL: TC-ER per UL 1277
Flexible Motor Supply Cable per
UL 2277
AWM 22022 per UL 758
Attributes: UL Oil Res I/II
90°C wet or dry
-40°C cold bend; -25°C cold impact
sunlight resistant
direct burial
NFPA 79
NEC: Class 1 Division 2 per NEC Article 501
Canada: c(UL) CIC FT4
cRU AWM II A/B FT4
Additional: RoHS II
Meets XHHW-2 performance
requirements per UL 44

*UL Verified ID A522492: Continuous Flex Test Method Verified

Part number	Number of conductors incl. ground	Nominal outer diameter in mm		Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® MS-SC metric thread	SKINTOP® MS-M BRUSH metric thread
16 AWG (1.3 mm²)							
701700	4 + drain	0.374	9.5	57.5	108	53112630	53112676
14 AWG (2.1 mm²)							
701701	4 + drain	0.410	10.4	81.8	137	53112630	53112676
12 AWG (3.3 mm²)							
701702	4 + drain	0.464	11.8	121.7	188	53112640	53112676
10 AWG (5.3 mm²)							
701703	4 + drain	0.504	12.8	184.1	268	53112640	53112676

Part number	Number of conductors incl. ground	Nominal outer diameter in mm		Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® MS-SC metric thread	SKINTOP® MS-M BRUSH metric thread
8 AWG (8.5 mm ²)							
701704	4 + drain	0.706	17.9	301.9	448	53112650	53112677
6 AWG (13.5 mm ²)							
701705	4 + drain	0.915	23.2	440.7	687	53110660	53112678
4 AWG (21.0 mm ²)							
701706	4 + drain	1.051	26.7	633.5	969	53112660	53112678
2 AWG (33.7 mm ²)							
701707	4 + drain	1.223	31.1	995.5	1410	53112670	53112679

Symmetrical Flexible cable for drives, motors & assemblies

VFD TKG FLX SYMMETRICAL



VFD TKG SYMMETRICAL is a flexible VFD cable that ensures ease of routing in the industrial platform. Superior shielding minimizes EMI to surrounding system. The insulated ground conductors are symmetrically positioned to reduce the effects of common mode current on motor and drive.



Recommended applications

VFD drive & motor connections for large HP applications; pumps; compressors; conveyors; elevators; extruders; HVAC; large presses; on/off, slow down/speed up applications.

Approvals



Cable attributes				page 648
OIL	OR-03	FLAME	FR-03	
MOTION	FL-01	MECH.	MP-03	

Construction

Conductors: bare copper

Insulation: XLPE insulation + 3 insulated symmetrical grounds

Shielding: foil and tinned copper braid

Jacket: TPE black

Application advantage

- 85% foil and braid coverage for EMI & RFI protection
- Low capacitance design
- UL TC-ER approved with XHHW-2 insulated conductors
- 3 SYM ground design for optimal electrical performance

Technical data

Minimum bend radius: 7.5 x OD

Temperature range:
- UL TC: -25°C to +90°C
- for stationary use: -40°C to +90°C

Nominal voltage:
- UL TC-ER: 600/1000V
- UL Flexible Motor Supply: 1000V

Test voltage:
12 - 10 AWG 6,000V
8 - 2 AWG 7,500V
1 AWG - 4/0 9,000V
250 - 500 MCM 10,000V

Conductor stranding:
- Circuit 12 AWG to 500 KCMIL: Class K
- Ground 16 AWG to 6 KCMIL: Class K

Color code: Black conductors with white numbers, plus 3 green/yellow symmetrical grounds.

Approvals: UL: TC-ER per UL 1277
Flexible motor supply cable per UL 2277 (12 AWG to 4/0)
Attributes: Oil Res I/II
90°C wet or dry
XHHW-2 per UL 44
-40°C cold bend
sunlight resistant
direct burial NFPA 79
NEC: Class 1 Division 2 per NEC Article 501
Canada: c(UL) RW90/TC FT4
cRU AWM I/II A/B 90C FT4
Additional: RoHS II

Part number	3 symmetrical grounds	Nominal outer diameter		Copper weight	Approx. weight	SKINTOP® MS-M BRUSH
		in	mm	lbs/mft	lbs/mft	metric thread
12 AWG (3.30 mm²)						
813430	16 AWG	0.461	11.71	152	260	53112676
10 AWG (5.32 mm²)						
813431	14 AWG	0.522	13.3	213	340	53112676
8 AWG (8.52 mm²)						
813432	14 AWG	0.706	17.9	286	451	53112677
6 AWG (13.5 mm²)						
813433	12 AWG	0.802	20.4	415	646	53112678
4 AWG (21.0 mm²)						
813434	12 AWG	0.899	22.8	574	836	53112678
2 AWG (33.7 mm²)						
813435	10 AWG	1.117	28.4	873	1189	53112679
1 AWG (35.0 mm²)						
813436	10 AWG	1.203	30.6	1051	1438	53112679

Part number	3 symmetrical grounds	Nominal outer diameter		Copper weight	Approx. weight	SKINTOP® MS-M BRUSH
		in	mm	lbs/mft	lbs/mft	metric thread
1/0 AWG (53.7 mm²)						
813437	10 AWG	1.326	33.7	1251	1678	53112679
2/0 AWG (67.7 mm²)						
813438	10 AWG	1.456	37.0	1523	2003	53112680
3/0 AWG (70 mm²)						
813439	8 AWG	1.616	41.0	1925	2474	53112680
4/0 AWG (95 mm²)						
813440	8 AWG	1.700	43.18	2325	2959	53112680
250 KCMIL (177.9 mm²)						
813441	8 AWG	1.890	48.0	2719	3588	53112681
350 KCMIL (185 mm²)						
813442	6 AWG	2.182	55.4	3748	4762	53112501
500 KCMIL (254.1 mm²)						
813443	6 AWG	2.490	63.2	5211	6412	53112500

Industrial Ethernet cable for continuous flex applications

ETHERLINE® 2 pair: CAT.5/CAT.5e; continuous flex



LAPP KABEL STUTTGART ETHERLINE® CAT.5

LAPP KABEL STUTTGART ETHERLINE® CAT.5e

ETHERLINE® CAT.5/5e cables are suitable for cable track applications and other moving machinery parts. The special cable design allows easy cable routing, yet provides excellent protection from EMI. The polyurethane outer jacket is halogen-free and resistant against oil, abrasion, and UV light.

Construction

Conductors: stranded bare copper • 2170894: tinned copper

Pairs: 2 twisted pairs or star quad

Insulation: polyolefin • 2170894: polyethylene

Shielding: copper braid • 2170894: foil and copper braid

Jacket: polyurethane; green or teal

Recommended applications

Continuous flex applications; cable tracks; cordsets; wiring of network devices; dry or damp environments

Approvals



EtherCAT® Technology Group
EtherNet/IP®



Cable attributes page 648

See attribute list by part number on page 232*

Complete the installation



Fast connect stripping tool



RJ45 connectors

ÖLFLEX® CONNECT solution



Industrial Ethernet cordsets

Technical data

Minimum bend radius:

- for stationary use: 8 x cable diameter
- for continuous flexing: 15 x cable diameter

Temperature range:

- 2170894 & 2170289:
 - for continuous flexing: -20°C to +60°C
 - for stationary use: -30°C to +70°C
- 2170289NA:
 - for continuous flexing: -5°C to +50°C
 - for stationary use: -40°C to +70°C

Nominal voltage:

- (not for power applications)
- 2170894: 100V
- 2170289 & 2170289NA: 1000V

Characteristic impedance: 100 ± 15

Color code:

- 2170894: white, yellow, blue, orange
- 2170289: white/orange & orange; white/green & green
- 2170289NA: white/orange & orange; white/blue & blue

Approvals:

UL: CMX (2170894)
AWM 21576 (2170289, 2170289NA)
Canada: c(UL) CMX (2170894)
cRU AWM I/II A/B FT2 (2170289, 2170289NA)
Additional: RoHS

*UL Verified ID A522492: Continuous Flex Test Method Verified

Part number	Construction	Stranding	Jacket material	Jacket color	Approvals	Fast connect	PoE	Nominal outer diameter in	Nominal outer diameter mm	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread
CAT.5											
2170894	22 AWG/2pr	7 wire	PUR	green	PROFINET®, UL/CSA CMX	yes	yes	0.256	6.5	42	53112210
CAT.5e											
2170289*	26 AWG/2pr	19 wire	PUR	teal	UL/CSA AWM, 1000V	no	no	0.240	6.1	32	53112210
2170289NA*	26 AWG/2pr	19 wire	PUR	teal	UL/CSA AWM, 1000V	no	no	0.228	5.8	32	53112210

Custom jacket colors available upon request. Minimum order quantities will apply.

Industrial Ethernet cable for stationary applications

ETHERLINE® 4 pair: CAT.5e; stationary



LAPP KABEL STUTTGART ETHERLINE® CAT.5e

ETHERLINE® 4 pair cables for stationary applications are suitable for CAT.5e data transmission. Designed with a foil and braid shield, the cable is protected against EMI and can be used in areas where reliable data transmission is key. The cable is available with a PUR or halogen-free jacket, or with a double halogen-free inner and outer jacket.

Construction

Conductors: solid bare copper

Pairs: 4 pairs twisted together

Insulation: foam skin

Shielding: foil and tinned copper braid

Jacket: polyurethane or halogen-free; teal • 2170298: halogen-free inner & outer jackets

Recommended applications

Stationary applications; industrial field and cell level networking; PLCs, sensors, and other network devices; dry and damp rooms

Application advantage

- Suitable for EtherCAT® & EtherNet/IP applications
- Excellent EMI protection
- Flame retardant
- Suitable for PoE per IEEE 802.3at

Approvals



Cable attributes

page 648

See attribute list by part number on page 234

Complete the installation



SKINTOP®
MS-SC



RJ45
connectors

ÖLFLEX® CONNECT solution



ÖLFLEX® CONNECT
CABLES

Technical data

Minimum bend radius:

- for stationary use: 8 x cable diameter

Temperature range:

-30°C to +80°C

Nominal voltage:

(not for power applications)

- 2170297: 1000V

- 2170296, 2170298: 125V

Test voltage:

1000V

Characteristic impedance: Z_{∞} 100 ± 15

Color code:

white/blue & blue,
white/orange & orange,
white/green & green,
white/brown & brown

Approvals:

UL: AWM 21576 (2170297)
Canada: cRU AWM I/II A/B FT2 (2170297)
Additional: RoHS

Part number	Construction	Stranding	Jacket material	Jacket color	Approvals	Fast connect	PoE	Nominal outer diameter in	Nominal outer diameter mm	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread
CAT.5e											
2170296	24 AWG/4pr	solid	halogen-free	teal	—	no	yes	0.248	6.3	36	53112210
2170297	24 AWG/4pr	solid	PUR	teal	UL/CSA AWM, 1000V	no	yes	0.248	6.3	42	53112210
2170298	24 AWG/4pr	solid	halogen-free*	teal	—	no	yes	0.296	7.5	54	53112220

* Inner and outer jacket

Custom jacket colors available upon request. Minimum order quantities will apply.

Industrial Ethernet cable for flexible applications

ETHERLINE® 4 pair: CAT.5e; flexible



LAPP KABEL STUTTGART ETHERLINE® CAT.5e



ETHERLINE® 4 pair CAT.5e cables designed for flexible applications come with a foil and braid shield for EMI protection. Jacket options include polyurethane and a Low Smoke Zero Halogen (LSZH) compound for applications where human safety and damage to electronic components are a concern.

Construction

Conductors: stranded bare copper

Pairs: 4 pairs twisted together

Insulation: polyethylene

Shielding: foil and tinned copper braid

Jacket: polyurethane or halogen-free; teal

Recommended applications

Flexible applications; wiring of industrial network devices, sensors, actuators, and cordsets

Application advantage

- Suitable for EtherCAT® & EtherNet/IP applications
- High-quality foil and braid protect against EMI
- Flame retardant
- LSZH jacket available

Approvals



Cable attributes

page 648

See attribute list by part number on page 234

Complete the installation



SKINTOP®
MS-SC



RJ45
connectors

ÖLFLEX® CONNECT solution



Industrial Ethernet cordsets

Technical data

Minimum bend radius:

- for stationary use: 8 x cable diameter
- for flexible use: 15 x cable diameter

Temperature range:

- 2170299:
 - for stationary use: -20°C to +75°C
 - for flexible use: -5°C to +50°C
- 2170300:
 - for stationary use: -40°C to +80°C
 - for flexible use: -5°C to +60°C

Nominal voltage:

- (not for power applications)
- 2170299: 125V
- 2170300: 1000V

Test voltage:

- 2170299: 700V

Characteristic impedance: 100 ± 15

Color code:

white/blue & blue,
white/orange & orange,
white/green & green,
white/brown & brown,

Approvals:

UL: AWM 21576 (2170300)
Canada: cRU AWM I/II A/B FT2 (2170300)
Additional: RoHS

Part number	Construction	Stranding	Jacket material	Jacket color	Approvals	Fast connect	PoE	Nominal outer diameter in mm	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread
CAT.5e cable										
2170299	26 AWG/4pr	7 wire	halogen-free (LSZH)	teal	—	no	no	0.240	6.1	32
2170300	26 AWG/4pr	7 wire	PUR	teal	UL/CSA AWM, 1000V	no	no	0.240	6.1	36

Max cable run: 196 ft (60 m)

Custom jacket colors available upon request. Minimum order quantities will apply.

Industrial Ethernet cable for continuous flex applications

ETHERLINE® 4 pair: CAT.5e; continuous flex



LAPP KABEL STUTTGART ETHERLINE® CAT.5e



This ETHERLINE® 4 pair cable is suitable for CAT.5e continuous flex applications in harsh industrial environments where EMI is pervasive. The rugged polyurethane jacket offers excellent protection against oils and abrasion, and is also halogen-free.

Construction

Conductors: stranded bare copper

Pairs: 4 pairs twisted together

Insulation: polyolefin

Shielding: tinned copper braid

Jacket: polyurethane; teal

Recommended applications

Continuous flex applications; cable tracks; cordsets; wiring of network devices in dry or damp rooms

Application advantage

- Suitable for EtherCAT® & EtherNet/IP applications
- Tested for 2.5 million flex cycles
- Shield provides reliable data transmission
- Easy routing
- PUR jacket is resistant to oil and abrasion

Approvals



Cable attributes

page 648



OIL

OR-04



FLAME

FR-00



MOTION

CF-02*



MECH.

MP-05

Complete the installation



**SKINTOP®
MS-SC**



**RJ45
connectors**

ÖLFLEX® CONNECT solution



**Industrial
Ethernet
cordsets**

Technical data



Minimum bend radius:

- for stationary use: 8 x cable diameter
- for continuous flexing: 15 x cable diameter



Temperature range:

- for stationary use: -30°C to +80°C
- for continuous flexing: -20°C to +70°C



Nominal voltage:

1000V (not for power applications)



Test voltage:

1000V



Characteristic impedance: 100 ± 15



Color code:

white/blue & blue,
white/orange & orange,
white/green & green,
white/brown & brown



Approvals:

UL: AWM 21576

Canada: cRU AWM I/II A/B FT2

Additional: RoHS

*UL Verified ID A522492: Continuous Flex Test Method Verified

Part number	Construction	Stranding	Jacket material	Jacket color	Approvals	Fast connect	PoE	Nominal outer diameter in	mm	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread
CAT.5e											
2170489	26 AWG/4pr	19 wire	PUR	teal	UL/CSA AWM, 1000V	no	no	0.248	6.3	36	53112210

Max cable run: 196 ft (60 m)

Custom jacket colors available upon request. Minimum order quantities will apply.



**AUTOMATION
& FACTORY
SOLUTIONS**

Industrial Ethernet cable for continuous flex applications

ETHERLINE® 4 pair: CAT.6; continuous flex



LAPP KABEL STUTTGART ETHERLINE® CAT.6



Designed with 4 pairs, a foil and braid shield, and a rugged PUR jacket, this ETHERLINE® cable meets CAT.6 requirements. It can be used in continuous flex applications.

Construction

- Conductors:** stranded tinned copper
- Pairs:** 4 pairs divided by central filler element
- Insulation:** polypropylene
- Shielding:** FRNC inner jacket; foil and braid
- Jacket:** polyurethane; green

Recommended applications

Continuous flex applications; cable tracks; cordsets

Application advantage

- PUR outer jacket is highly resistant to oils, abrasion, and UV radiation
- Premium screening against EMI
- Suitable for EtherCAT® & EtherNet/IP applications

Approvals



Cable attributes

page 648

OIL	OR-04	FLAME	FR-02
MOTION	CF-01*	MECH.	MP-05

Complete the installation



SKINTOP®
MS-SC



RJ45
connectors

ÖLFLEX® CONNECT solution



ÖLFLEX® CONNECT
CABLES

Technical data

Minimum bend radius: - for stationary use: 4 x cable diameter - for continuous flexing: 7.5 x cable diameter	Test voltage: 700V
Temperature range: - for stationary use: -40°C to +80°C - for continuous flexing: -30°C to +70°C	Characteristic impedance: 100 ± 15
Nominal voltage: 100V (not for power applications)	Color code: white & blue, white & orange, white & green, white & brown
Approvals: UL: CMX Canada: c(UL) CMX Additional: RoHS	Approvals: UL: CMX Canada: c(UL) CMX Additional: RoHS
*UL Verified ID A522492: Continuous Flex Test Method Verified	

Part number	Construction	Stranding	Jacket material	Jacket color	Approvals	Fast connect	PoE	Nominal outer diameter inmm		Approx. weight lbs/mft	SKINTOP® MS-SC PG thread
CAT.6											
2170488	26 AWG/4pr	19 wire	PUR	green	UL/CSA CMX	no	no	0.307	7.8	42	53112220

Max cable run: 196 ft (60 m)

Custom jacket colors available upon request. Minimum order quantities will apply.

Tray-rated Industrial Ethernet cable for stationary applications

ETHERLINE® TRAY CAT.7; stationary



LAPP KABEL STUTTGART ETHERLINE® TRAY CAT.7



ETHERLINE® TRAY CAT.7 is designed for stationary applications with performance and maximum transfer rate (IEEE 802.3) of 10 GBit/s up to 328 feet. Pairs are individually foil shielded with and overall braid shield; offering excellent shielding properties based on IEC 61156-5 and can be used in areas where reliable transmission is key including EtherNet/IP, Profinet with 4 pairs, EtherCAT, Power over Ethernet (IEEE 802.3af) and Power over Ethernet Plus (802.3at).

Construction

- Conductors:** solid strand bare copper
Pairs: 4 twisted pairs individually shielded
Insulation: foam polyethylene insulation
Shielding: overall tinned copper braid
Jacket: Specially formulated PVC; green

Recommended applications

Stationary applications, cable trays, industrial machinery, commercial and plant infrastructure

Application advantage

- Wide application range due to multiple certifications
- PLTC-ER for use in cable trays
- Suitable for EtherNet/IP applications
- Suitable for PoE per IEEE 802.3af and 802.3at
- Sunlight resistant
- Meets or exceeds requirements for Cat.6A per ANSI/TIA 568.2-D

Approvals



Cable attributes page 648

OIL	OR-03	FLAME	FR-03
MOTION	FL-01	MECH.	MP-02

Complete the installation



SKINTOP®
MS-SC



RJ45 CAT.6A
connectors

ÖLFLEX® CONNECT solution



ÖLFLEX® CONNECT
CABLES

Technical data

Minimum bend radius: - for stationary use: 10 x cable diameter - for flexible use: 15 x cable diameter	Characteristic impedance: 100 ± 15 (1 – 100 MHz)
Temperature range: - for stationary use: -40°C to +80°C - for flexible use: -20°C to +80°C	Color code: white/blue & blue, white/orange & orange, white/green & green, white/brown & brown
Nominal voltage: (not for power applications) UL/CSA 300V UL/CSA AWM 600V	Approvals: UL: CMG per UL 444 PLTC-ER per UL 13 AWM 21695 per UL 758 CMR per UL 444 NEC: Class 1 Division 2 per NEC Article 501 Canada: c(UL) CMG per CSA C22.2 No. 214 Additional: cRU AWM II A/B FT4 per CSA C22.2 No 210
Test voltage: 1500V	

Part number	Construction	Stranding	Jacket material	Jacket color	Approvals	PoE	Nominal outer diameter in mm	Approx. weight lbs/mft	RJ45 Connector
CAT.7 2170472	22 AWG/4pr	solid	PVC	green	UL CMG, UL AWM 600V, PLTC-ER	yes	0.350 8.9	77	21700636

Max cable run: 328 ft (100 m)

Custom jacket colors available upon request. Minimum order quantities will apply.

RSR SERIES ALUMINUM CORD GRIPS



RSR SERIES STRAIGHT ALUMINUM CORD GRIPS

Tuff-Seal™ RSR Series Aluminum Cord Grips are UL Listed and CSA Certified for use in both indoor and outdoor applications to prevent cable pullout, control arc of bend, and to provide a tight seal against environmental elements such as dirt, moisture and coolants.

The breadth of the line encompasses conduit sizes from 1/4" to 4" with fittings offered in machined aluminum, nickel-plated aluminum, steel, stainless steel, nylon and Valox. Other features of the family of RSR Cord Grips include:

- A unique design with a combination tightening surface that includes both a hex area and a knurled surface
- Available with or without stainless steel wire mesh
- Optional embedded BUNA-N O-Ring ensures a watertight and corrosion-resistant seal
- Available in NPT, PG, ISO or Metric threads
- Anti-friction washer that fits between the nut and bushing for easier compression.

NOTES

CORD GRIP ACCESSORIES

Locknuts: add "-L" to any part number

O-Rings: add "-R" to any part number

OPTION: NICKEL-PLATED ALUMINUM

Add 'N' to end of prefix e.g. RSR-0003 becomes RSRN-0003

OPTION: ANODIZED ALUMINUM

Add 'A' to end of prefix e.g. RSR-0003 becomes RSRA-0003.

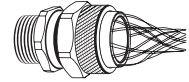
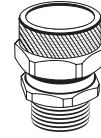
SPECIAL CONFIGURATIONS

Special configurations and materials are available. Consult factory.

All wire mesh is stainless steel.



COMPLETE ASSEMBLY PART NUMBERS



RSR SERIES ALUMINUM CORD GRIPS

Conduit Size (NPT)	Cable Range	Cord Grip	Cord Grip With Mesh
1/4"	.125 - .188	RSR-0003	***
	.188 - .250	RSR-0004	RSR-0004-E
	.250 - .312	RSR-0005	RSR-0005-E
	.312 - .375	RSR-0006	RSR-0006-E
	.375 - .438	RSR-0007*	RSR-0007-E
3/8"	.125 - .188	RSR-003	***
	.188 - .250	RSR-004	RSR-004-E
	.250 - .312	RSR-005	RSR-005-E
	.312 - .375	RSR-006	RSR-006-E
	.375 - .438	RSR-007*	RSR-007-E
1/2"	.125 - .188	RSR-1003	***
	.188 - .250	RSR-1004	RSR-1004-E
	.250 - .312	RSR-1005	RSR-1005-E
	.312 - .375	RSR-1006	RSR-1006-E
	.375 - .438	RSR-1007	RSR-1007-E
	.125 - .188	RSR-103	***
	.188 - .250	RSR-104	RSR-104-E
	.250 - .312	RSR-105	RSR-105-E
	.312 - .375	RSR-106	RSR-106-E
	.375 - .438	RSR-107	RSR-107-E
	.438 - .500	RSR-108	RSR-108-E
	.500 - .562	RSR-109	RSR-109-E
	.562 - .625	RSR-110	RSR-110-E
	.438 - .500	RSR-1208	RSR-1208-E
	.500 - .562	RSR-1209	RSR-1209-E
	.562 - .625	RSR-1210	RSR-1210-E
	.562 - .688	RSR-1211*	RSR-1211-E
	.625 - .750	RSR-1212*	RSR-1212-E
	.688 - .812	RSR-1213*	RSR-1213-E
3/4"	.125 - .188	RSR-2103	***
	.188 - .250	RSR-2104	RSR-2104-E
	.250 - .312	RSR-2105	RSR-2105-E
	.312 - .375	RSR-2106	RSR-2106-E
	.375 - .438	RSR-2107	RSR-2107-E
	.438 - .500	RSR-2108	RSR-2108-E
	.500 - .562	RSR-2109	RSR-2109-E
	.562 - .625	RSR-2110	RSR-2110-E
	.438 - .500	RSR-208	RSR-208-E
	.500 - .562	RSR-209	RSR-209-E
	.562 - .625	RSR-210	RSR-210-E
	.562 - .688	RSR-211	RSR-211-E
	.625 - .750	RSR-212	RSR-212-E
	.688 - .812	RSR-213	RSR-213-E
	.500 - .562	RSR-2309	RSR-2309-E
	.562 - .625	RSR-2310	RSR-2310-E
	.562 - .688	RSR-2311	RSR-2311-E
	.625 - .750	RSR-2312	RSR-2312-E
	.688 - .812	RSR-2313	RSR-2313-E
	.750 - .875	RSR-2314*	RSR-2314-E
	.812 - .938	RSR-2315*	RSR-2315-E
	.875 - 1.000	RSR-2316*	RSR-2316-E

*Cable may have to be stripped to pass through the bore of the body

***Contact Remke for mesh availability on this part number

RSR SERIES ALUMINUM CORD GRIPS



RSR SERIES STRAIGHT ALUMINUM CORD GRIPS

For applications known for their severe conditions – such as oil and gas, marine, food & chemical processing – RSR Cord Grips are available in nickel-plated aluminum. Providing exceptional corrosion resistance and high wear resistance, nickel plated connectors also feature an attractive finish similar to that of polished stainless steel.

Tuff-Seal™ RSR Cord Grips protect cable from damage and pull-out and are used in conduit hubs or knockouts at the point where the electrical cable is to be terminated.

NOTES

CORD GRIP ACCESSORIES

Locknuts: add "-L" to any part number

O-Rings: add "-R" to any part number

OPTION: NICKEL-PLATED ALUMINUM

Add 'N' to end of prefix e.g. RSR-0003 becomes RSRN-0003

OPTION: ANODIZED ALUMINUM

Add 'A' to end of prefix e.g. RSR-0003 becomes RSRA-0003.

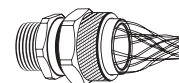
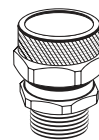
SPECIAL CONFIGURATIONS

Special configurations and materials are available. Consult factory.

All wire mesh is stainless steel.



COMPLETE ASSEMBLY PART NUMBERS



RSR SERIES ALUMINUM CORD GRIPS

Conduit Size (NPT)	Cable Range	Cord Grip	Cord Grip With Mesh
1"	.500 – .562	RSR-309	RSR-309-E
	.562 – .625	RSR-310	RSR-310-E
	.562 – .688	RSR-311	RSR-311-E
	.625 – .750	RSR-312	RSR-312-E
	.688 – .812	RSR-313	RSR-313-E
	.750 – .875	RSR-314	RSR-314-E
	.812 – .938	RSR-315	RSR-315-E
	.875 – 1.000	RSR-316	RSR-316-E
	.875 – 1.000	RSR-3516	RSR-3516-E
	1.000 – 1.125	RSR-3518	RSR-3518-E
	1.125 – 1.250	RSR-3520	RSR-3520-E
	1.250 – 1.375	RSR-3522*	RSR-3522-E
1 1/4"	.562 – .688	RSR-411	**
	.688 – .812	RSR-413	**
	.750 – .875	RSR-414	RSR-414-E
	.875 – 1.000	RSR-416	RSR-416-E
	1.000 – 1.125	RSR-418	RSR-418-E
	1.125 – 1.250	RSR-420*	RSR-420-E
	1.250 – 1.375	RSR-422*	RSR-422-E
1 1/2"	.562 – .688	RSR-511	**
	.688 – .812	RSR-513	**
	.750 – .875	RSR-514	RSR-514-E
	.875 – 1.000	RSR-516	RSR-516-E
	1.000 – 1.125	RSR-518	RSR-518-E
	1.125 – 1.250	RSR-520	RSR-520-E
	1.250 – 1.375	RSR-522	RSR-522-E
	1.250 – 1.375	RSR-5622	RSR-5622-E
	1.312 – 1.437	RSR-5623	RSR-5623-E
	1.438 – 1.562	RSR-5625	RSR-5625-E
2"	1.562 – 1.688	RSR-5627*	RSR-5627-E
	1.688 – 1.800	RSR-5629*	RSR-5629-E
	1.250 – 1.375	RSR-622	RSR-622-E
	1.312 – 1.437	RSR-623	RSR-623-E
	1.438 – 1.562	RSR-625	RSR-625-E
	1.562 – 1.688	RSR-627	RSR-627-E
	1.688 – 1.800	RSR-629	RSR-629-E
	1.688 – 1.812	RSR-6729	RSR-6729-E
	1.812 – 1.938	RSR-6731	RSR-6731-E
	1.938 – 2.062	RSR-6733*	RSR-6733-E
	2.062 – 2.188	RSR-6735*	RSR-6735-E
	2.188 – 2.312	RSR-6737*	RSR-6737-E
	2.312 – 2.438	RSR-6739*	RSR-6739-E

*Cable may have to be stripped to pass through the bore of the body

**Contact Remke for mesh availability on this part number

RSR SERIES ALUMINUM CORD GRIPS



RSR SERIES STRAIGHT ALUMINUM CORD GRIPS

For applications known for their severe conditions – such as oil and gas, marine, food & chemical processing – RSR Cord Grips are available in nickel-plated aluminum. Providing exceptional corrosion resistance and high wear resistance, nickelplated connectors also feature an attractive finish similar to that of polished stainless steel.

Tuff-Seal™ RSR Cord Grips protect cable from damage and pull-out and are used in conduit hubs or knockouts at the point where the electrical cable is to be terminated.

NOTES

CORD GRIP ACCESSORIES

Locknuts: add "-L" to any part number

O-Rings: add "-R" to any part number

OPTION: NICKEL-PLATED ALUMINUM

Add 'N' to end of prefix e.g. RSR-0003 becomes RSRN-0003

OPTION: ANODIZED ALUMINUM

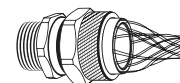
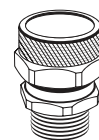
Add 'A' to end of prefix e.g. RSR-0003 becomes RSRA-0003.

SPECIAL CONFIGURATIONS

Special configurations and materials are available. Consult factory.

All wire mesh is stainless steel.

COMPLETE ASSEMBLY PART NUMBERS



RSR SERIES ALUMINUM CORD GRIPS

Conduit Size (NPT)	Cable Range	Cord Grip	Cord Grip With Mesh
2 1/2"	1.688 – 1.812	RSR-729	RSR-729-E
	1.812 – 1.938	RSR-731	RSR-731-E
	1.938 – 2.062	RSR-733	RSR-733-E
	2.062 – 2.188	RSR-735	RSR-735-E
	2.188 – 2.312	RSR-737	RSR-737-E
	2.312 – 2.438	RSR-739*	RSR-739-E
3"	1.688 – 1.812	RSR-8729	RSR-8729-E
	1.812 – 1.938	RSR-8731	RSR-8731-E
	1.938 – 2.062	RSR-8733	RSR-8733-E
	2.062 – 2.188	RSR-8735	RSR-8735-E
	2.188 – 2.312	RSR-8737	RSR-8737-E
	2.312 – 2.438	RSR-8739*	RSR-8739-E
	2.437 – 2.625	RSR-901	RSR-901-E
	2.625 – 2.812	RSR-902	RSR-902-E
	2.812 – 3.000	RSR-903	RSR-903-E
	3.000 – 3.250	RSR-904	RSR-904-E
3 1/2"	3.000 – 3.180	RSR-1151	RSR-1151-E
	3.180 – 3.335	RSR-1152	RSR-1152-E
	3.335 – 3.530	RSR-1153	RSR-1153-E
4"	3.500 – 3.690	RSR-1251	RSR-1251-E
	3.690 – 3.855	RSR-1252	RSR-1252-E
	3.855 – 4.025	RSR-1253	RSR-1253-E

*Cable may have to be stripped to pass through the bore of the body



AUTOMATION
& FACTORY
SOLUTIONS

RSR SERIES ALUMINUM CORD GRIPS



RSR SERIES 90° ALUMINUM CORD GRIPS

Tuff-Seal™ 90° RSR Cord Grips are UL Listed and CSA Certified for use in both indoor and outdoor applications to prevent cable pullout, control arc of bend, and to provide a tight seal against environmental elements such as dirt, moisture and coolants.

These cord grips with external threads offer the same features as the straight RSR grips described on page 14. 90° grips can be ordered with or without wire mesh attachments, accommodate conduit sizes from 3/8" to 2" and are available in machined aluminum, nylon and Valox.

For applications known for their severe conditions – such as oil and gas, marine, food & chemical processing – RSR 90° Cord Grips are available in nickel-plated aluminum. Providing exceptional corrosion resistance and high wear resistance, nickel-plated connectors also feature an attractive finish similar to that of polished stainless steel.

These Tuff-Seal grips protect cable from damage and pull-out and are used in conduit hubs or knock-outs at the point where the electrical cable is to be terminated.

NOTES

CORD GRIP ACCESSORIES

Locknuts: add "L" to any part number
O-Rings: add "R" to any part number

OPTION: NICKEL-PLATED ALUMINUM

Add 'N' to end of prefix e.g. RSR-9003 becomes RSRN-9003

OPTION: ANODIZED ALUMINUM

Add 'A' to end of prefix e.g. RSR-9003 becomes RSRA-9003

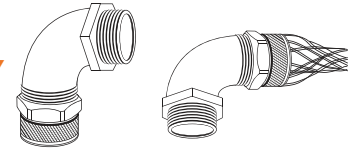
SPECIAL CONFIGURATIONS

Special configurations and materials are available. Consult factory.

All wire mesh is stainless steel.



COMPLETE ASSEMBLY PART NUMBERS



RSR SERIES ALUMINUM CORD GRIPS

Conduit Size (NPT)	Cable Range	Cord Grip	Cord Grip With Mesh
3/8"	.125 – .188	RSR-9003	***
	.188 – .250	RSR-9004	RSR-9004-E
	.250 – .312	RSR-9005	RSR-9005-E
	.312 – .375	RSR-9006	RSR-9006-E
	.375 – .438	RSR-9007	RSR-9007-E
1/2"	.125 – .188	RSR-9103	***
	.188 – .250	RSR-9104	RSR-9104-E
	.250 – .312	RSR-9105	RSR-9105-E
	.312 – .375	RSR-9106	RSR-9106-E
	.375 – .438	RSR-9107	RSR-9107-E
	.438 – .500	RSR-9108	RSR-9108-E
	.500 – .562	RSR-9109	RSR-9109-E
	.562 – .625	RSR-9110	RSR-9110-E
3/4"	.438 – .500	RSR-9208	RSR-9208-E
	.500 – .562	RSR-9209	RSR-9209-E
	.562 – .625	RSR-9210	RSR-9210-E
	.562 – .688	RSR-9211	RSR-9211-E
	.625 – .750	RSR-9212	RSR-9212-E
	.688 – .812	RSR-9213	RSR-9213-E
1"	.500 – .562	RSR-9309	RSR-9309-E
	.562 – .625	RSR-9310	RSR-9310-E
	.562 – .688	RSR-9311	RSR-9311-E
	.625 – .750	RSR-9312	RSR-9312-E
	.688 – .812	RSR-9313	RSR-9313-E
	.750 – .875	RSR-9314	RSR-9314-E
	.812 – .938	RSR-9315	RSR-9315-E
	.875 – 1.000	RSR-9316	RSR-9316-E
1 1/4"	.562 – .688	RSR-9411	***
	.688 – .812	RSR-9413	***
	.750 – .875	RSR-9414	RSR-9414-E
	.875 – 1.000	RSR-9416	RSR-9416-E
	1.000 – 1.125	RSR-9418	RSR-9418-E
	1.125 – 1.250	RSR-9420	RSR-9420-E
	1.250 – 1.375	RSR-9422	RSR-9422-E
1 1/2"	.562 – .688	RSR-9511	***
	.688 – .812	RSR-9513	***
	.750 – .875	RSR-9514	RSR-9514-E
	.875 – 1.000	RSR-9516	RSR-9516-E
	1.000 – 1.125	RSR-9518	RSR-9518-E
	1.125 – 1.250	RSR-9520	RSR-9520-E
	1.250 – 1.375	RSR-9522	RSR-9522-E
	1.438 – 1.562	RSR-9525	RSR-9525-E
	1.562 – 1.688	RSR-9527	RSR-9527-E
	1.688 – 1.800	RSR-9529	RSR-9529-E
2"	1.250 – 1.375	RSR-9622	RSR-9622-E
	1.438 – 1.562	RSR-9625	RSR-9625-E
	1.562 – 1.688	RSR-9627	RSR-9627-E
	1.688 – 1.800	RSR-9629	RSR-9629-E

*Cable may have to be stripped to pass through the bore of the body

***Contact Remke for mesh availability of this part number



**AUTOMATION
& FACTORY
SOLUTIONS**



automation.gogcg.com



automate@gogcg.com