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Технические характеристики

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Servo drive assemblies

LÜTZE offers pre-assembled cables 100 % compatible with common servo-drive systems according to the following standards

Allen-Bradley* 2090 standard

Bosch Rexroth* standard

SIEMENS* 6FX standard

As a special service LÜTZE offers each cable assembly in 0.5 m increments - with a minimum order of one piece!

On request, we customize servo assemblies according to your specifications and requirements, we will gladly assist you with the project planning and documentation.

*registered trademarks



Motor and servo feed back: Best possible efficiency by means of maximum power transmission

Full power in all drive situations - the low-capacity cables from LÜTZE have the lowest losses which means that the maximum output can be transferred as a ratio to the cross-section. The special LÜTZE cable design therefore offers a maximum of efficiency and also helps to save energy.



Your efficient connection to the drive

Are you looking for the right connection between the control cabinet and the drive? LÜTZE can offer you a complete solution from one source. 100% compatible to standard servo systems: Quality is LÜTZE's top priority.

LÜTZE cables are specially designed for rough industrial environments which exceed some standard requirements.

Or are you looking for a very individual solution? We adapt cable assemblies to meet your requirements. Just ask us! We have a wide range of cables, connectors, protective hoses and openings to choose from - all readily available!

The LÜTZE cable specialists are familiar with all applications and technologies in the broad field of automation solutions. Ultimately,

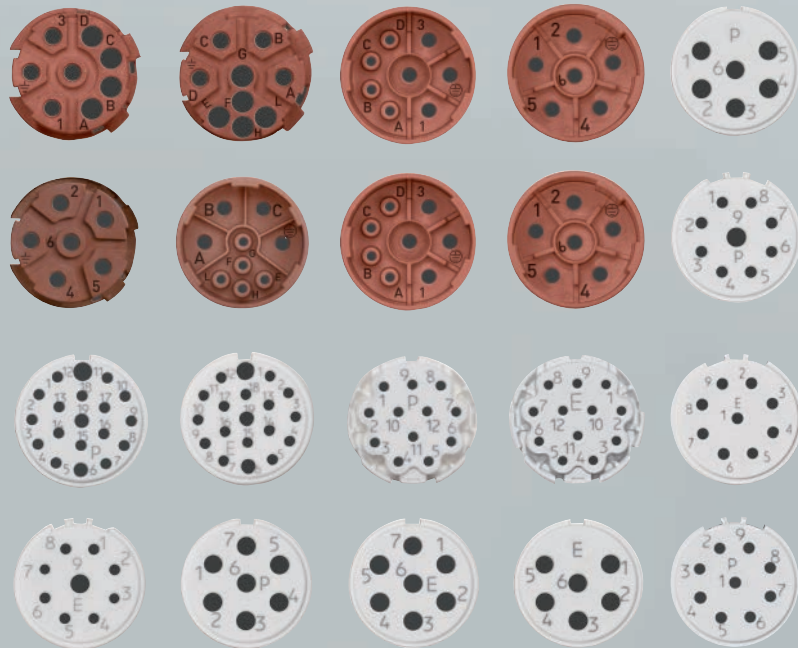
LÜTZE and its product ranges Cable, Connectivity, Cabinet and Control are a part of the industrial automation field!

Assemblies for the following standards

Allen-Bradley
Bosch Rexroth
Lenze
SEW
Siemens 6FX



Always the right connection: **LÜTZE** cable assemblies



Standard Cable Assembly Solutions

LÜTZE servo cable assemblies are fully compatible with respective ALLEN BRADLEY® systems.

Additionally LÜTZE offers servo cable assemblies for SIEMENS 6FX and Bosch Rexroth systems. For servo motors, encoder and feedback cables, for C-track or fixed installation, LÜTZE offers lots of solutions for highest requirements.

Every system is different. Take advantage of our experience in cable assembly!

Advantages of LÜTZE Tamper-proof connector

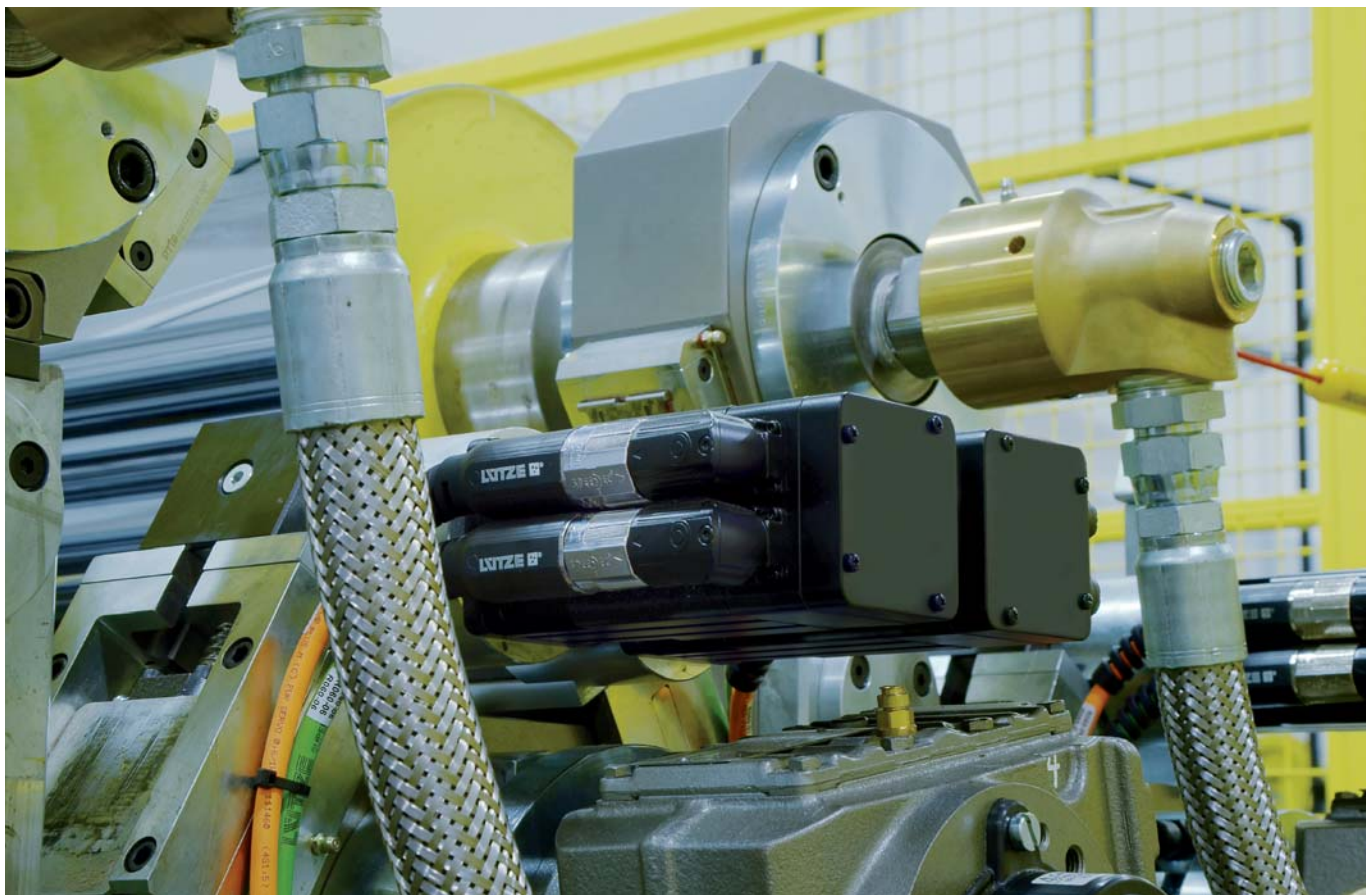
LÜTZE covers the full range of connectors needed for the specific servo systems including power, feedback and single configurations.

Certain connectors provide integrated kink protection via spiral plastic sleeve. All connectors ensure proper 360° EMC shielding, thus meeting and exceeding requirements of the demanding industrial applications.

Other benefits:

- Tamper-proof: to avoid unauthorized opening of the connector housing and incorrect field terminations
- Fully compatible with respective servo systems
- Production of single unit available
- Short delivery times
- Protection class IP66/67

Applications



LUTZE Servo Cable Assemblies in action: Power- and Feedback assembly connected to motor jacks with SpeedTec connector!



Wiring inside and on the cabinet: LUTZE cable assemblies are always system compatible and offer great flexibility.

Applications



Servomotor Cable Assemblies for stationary applications

According to Allen-Bradley 2090 standard



Application

- For Allen-Bradley standard
- Connecting lead especially for frequency converters and servo drives in machine and plant construction, transport and conveyor technology
- Conform with NFPA79 for machine tool wiring
- Very suitable for extreme operating conditions and high interference signals
- In dry, moist and wet environment
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Easy installation
- Largely resistant to mineral and vegetable-based cutting oils
- UV-resistant
- Silicone and talcum free
- RoHS compliant

Technical data

UL approval	cULus
Nominal voltage	600 V UL TC 600 V UL MTW 600 V UL AWM 105 °C 1000 V WTTTC
Voltage U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
fixed	-40 °C to +90 °C
Minimum bending radius	
fixed	D × 6
Approvals	UL TC-ER, UL/AWM/CE, UL MTW, WTTTC UL AWM Style 20328, Class 1, Div. 2 per NEC Art. 336, 392, 501 C(UL) TC, CUL FT4, UL 1277 Oil Res I and II, RoHS

Construction

- AWG conductor
- Conductor insulation Special PVC/nylon
- Conductor marking Power wires: brown, black, blue
- Ground conductor green/yellow according to DIN EN 50334
- Control pair colour-coded black, white
- Control pair with foil taping and braided shield.
- Conductors twisted without mechanical stress, layer pitch optimised
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special-TPE, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part No.	Allen-Bradley designation	Length m	Number of strands/ cross-section	OD Ø ca. mm
Base cable SpeedTec				
193966.1000	2090-CPWM7DF-16AAxx*	10.0	(4GAWG16)	10.5
193956.1000	2090-CPWM7DF-14AAxx*	10.0	(4GAWG14)	11.6
193352.1000	2090-CPWM7DF-12AAxx*	10.0	(4GAWG12)	13.1
193306.1000	2090-CPWM7DF-10AAxx*	10.0	(4GAWG10)	16.5
193353.1000	2090-CPWM7DF-08AAxx*	10.0	(4GAWG8)	21.0
193960.1000	2090-CPBM7DF-16AAxx*	10.0	(4GAWG16+(2×AWG18))	12.1
193990.1000	2090-CPBM7DF-14AAxx*	10.0	(4GAWG14+(2×AWG18))	12.8
193356.1000	2090-CPBM7DF-12AAxx*	10.0	(4GAWG12+(2×AWG18))	14.2
193962.1000	2090-CPBM7DF-10AAxx*	10.0	(4GAWG10+(2×AWG18))	18.1
193357.1000	2090-CPBM7DF-08AAxx*	10.0	(4GAWG8+(2×AWG18))	22.5
193961.1000	2090-CPBM7DF-06AAxx*	10.0	(4GAWG6+(2×AWG18))	24.6
193362.1000	2090-CPBM7DF-04AAxx*	10.0	(4GAWG4+(2×AWG18))	29.5
193369.1000	2090-CPBM7DF-02AAxx*	10.0	(4GAWG2+(2×AWG18))	34.1

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The product photos are not to scale and do not represent detailed images of the respective products.

* UL approval and technical data shown apply to the cable used in the assemblies

Servomotor Cable Assemblies for C-tracks

According to Allen-Bradley 2090 standard



Application

- Servo cables for Allen Bradley drives
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resistance against aggressive coolants and lubricants
- Especially for industrial environments in machines and plants

Properties

- High active and passive interference resistance (EMC)
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 21223
Nominal voltage	1000 V 80 °C
Test voltage	4000 V
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1

Construction

- Bare copper wire, finest multi-strand according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Control pair color-coded (bw, wb) or numbered (5/6/7/8)
- Control pair with braided shield and foil taping
- Conductors twisted without mechanical stress, layer pitch optimized
- Non-woven material over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part No.	Allen-Bradley designation	Length m	Number of strands/ cross-section	OD Ø ca. mm
DIN thread				
193951.1000	2090-XXNPMF-16Sxx*	10.0	(4G1.5+2×(2×0.75))	12.9
193950.1000	2090-XXNPMF-14Sxx*	10.0	(4G2.5+2×(2×1.0))	14.2

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Servomotor Cable Assemblies for C-tracks

According to Allen-Bradley 2090 standard



Application

- Servo cables for Allen Bradley drives
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resistance against aggressive coolants and lubricants
- Especially for industrial environments in machines and plants

Properties

- High active and passive interference resistance (EMC)
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 21223
Nominal voltage	1000 V 80 °C
Test voltage	4000 V
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1

Construction

- Bare copper wire, finest multi-strand according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Control pair color-coded (bw, wb) or numbered (5/6/7/8)
- Control pair with braided shield and foil taping
- Conductors twisted without mechanical stress, layer pitch optimized
- Non-woven material over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003



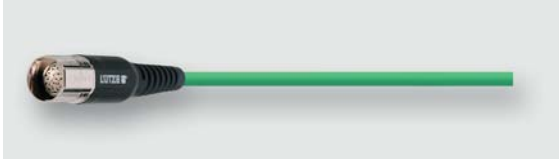
Part No.	Allen-Bradley designation	Length m	Number of strands/ cross-section	OD Ø ca. mm
Base cable SpeedTec				
193309.1000	2090-CPWM7DF-16AFxx*	10.0	(4G1.5)	8.6
193307.1000	2090-CPWM7DF-10AFxx*	10.0	(4G6.0)	14.0
193989.1000	2090-CPBM7DF-10AFxx*	10.0	(4G6.0+(2×1.5))	16.1
193991.1000	2090-CPBM7DF-16AFxx*	10.0	(4G1.5+(2×1.5))	11.4
193308.1000	2090-CPWM7DF-14AFxx*	10.0	(4G2.5)	10.8
193957.1000	2090-CPBM7DF-14AFxx*	10.0	(4G2.5+(2×1.5))	12.9
193311.1000	2090-CPWM7DF-08AFxx*	10.0	(4G10)	17.6
193355.1000	2090-CPBM7DF-08AFxx*	10.0	(4G10+(2×1.5))	19.5
DIN thread				
193985.1000	2090-CPBM4DF-16AFxx*	10.0	(4G1.5+(2×1.5))	12.9
193303.1000	2090-CPWM4DF-16AFxx*	10.0	(4G1.5)	8.6
193983.1000	2090-CPBM4DF-14AFxx*	10.0	(4G2.5+(2×1.5))	14.2
193301.1000	2090-CPWM4DF-14AFxx*	10.0	(4G2.5)	10.8
Extension SpeedTec				
193996.1000	2090-CPBM7E7-16AFxx*	10.0	(4G1.5+(2×1.5))	11.4
193994.1000	2090-CPBM7E7-10AFxx*	10.0	(4G6.0+(2×1.5))	16.1
193360.1000	2090-CPBM7E7-14AFxx*	10.0	(4G2.5+(2×1.5))	12.9
193361.1000	2090-CPBM7E7-08AFxx*	10.0	(4G10+(2×1.5))	19.5

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Signal Cable Assemblies for stationary applications

According to Allen-Bradley 2090 standard



Part No.	Allen-Bradley designation	Length m	Number of strands/ cross-section	OD Ø ca. mm
Base cable SpeedTec				
193959.1000	2090-CFBM7DF-CEAAxx*	10.0	(5×2×AWG22)	9.9
193358.1000	2090-CFBM7DD-CEAAxx*	10.0	(5×2×AWG22)	9.9
DIN thread				
193337.1000	2090-XXNFMF-Sxx*	10.0	(2×AWG16+2×AWG22 +6×2×AWG26)	13.6

Application

- Feedback cables for Allen Bradley drives
- Conform with NFPA79 for machine tool wiring
- Very suitable for extreme operating conditions and high interference signals
- In dry, moist and wet environment
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Easy installation
- Specially developed TPE jacket for superior oil-resistance according to UL 1581
- Largely resistant to mineral and vegetable-based cutting oils
- UV-resistant
- Silicone and talcum-free
- RoHS compliant

Technical data

Nominal voltage	300 V UL PLTC-ER 300 V UL CM 600 V UL AWM 90 °C
Test Voltage	1.5 kV
Temperature range	-30 °C to +105 °C (static -40 °C)
Minimum bending radius	min. D × 6, static
Burning behavior	Flame retardant per UL Vertical-Tray UL VW-1
Oil resistance	UL1581 4 days in Oil at 100 °C 60 days in Oil at 75 °C
Approvals	A1410001: UL PLTC-ER, meets NEC 725 and Class I Div. 2 A1410002: UL CM, meets NEC 800 Both: UL AWM Style 20626 CE RoHS REACH

Construction

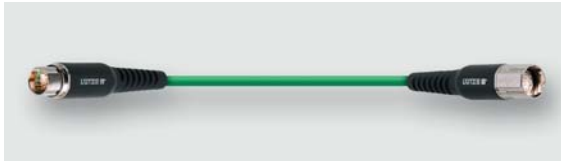
- AWG conductor
- Flexible fine wire stranded bare copper conductors IEC 60228 class 6
- Conductor insulation Special PVC
- Conductor marking Conductors color-coded for specific system
- Aluminium laminated film shield, braid made of tinned copper wires, optical coverage approx. 85 %, drain wire
- Outer jacket Extremely oil-resistant TPE jacket
- Jacket color green RAL 6018

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* UL approval and technical data shown apply to the cable used in the assemblies

Signal Cable Assemblies for C-tracks

According to Allen-Bradley 2090 standard



Application

- Servo feedback cables for Allen Bradley drives
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resistance against aggressive coolants and lubricants
- Especially for industrial environments in machines and plants

Properties

- High active and passive interference resistance (EMC)
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 21223
Nominal voltage	1000 V 80 °C
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 12
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1

Construction

- Bare copper wire, finest multi-strand according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE
- Conductor marking Conductors color-coded for specific system
- Ground conductor green/yellow according to DIN EN 50334
G = with green/yellow ground conductor, × = without ground conductor
- Conductors twisted without mechanical stress, layer pitch optimized
- Non-woven material over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color green RAL 6018



Part No.	Allen-Bradley designation	Length m	Number of strands/ cross-section	OD Ø ca. mm
Base cable SpeedTec				
193977.1000	2090-CFBM7DF-CEAFxx*	10.0	(5×2×AWG22)	9.2
193958.1000	2090-CFBM7DF-CDAFxx*	10.0	(2×AWG16+2×AWG22 +6×2×AWG26)	10.8
193350.1000	2090-CFBM7DD-CEAFxx*	10.0	(5×2×AWG22)	9.2
DIN thread				
193973.1000	2090-CFBM4DF-CDAFxx*	10.0	(2×AWG16+2×AWG22 +6×2×AWG26)	10.8
Extension SpeedTec				
193979.1000	2090-CFBM7E7-CEAFxx*	10.0	(5×2×AWG22)	9.2
193978.1000	2090-CFBM7E7-CDAFxx*	10.0	(2×AWG16+2×AWG22 +6×2×AWG26)	10.8

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Single Cable Assemblies for C-tracks

According to Allen-Bradley 2090 standard



Application

- Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through Full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- Good resistance to use and salt water
- Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Halogen free
- Silicone and talcum free
- RoHS compliant

Technical data

UL approval	AWM 21223
Nominal voltage	1000 V 80 °C
Test voltage	3000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 7.5
fixed	D × 5
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1-2, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1

Note

max cable length according to Allen- Bradley specifications

Base cable for Kinetix 5500 Drives max. 50 m
Base cable for Kinetix 5700 Drives max. 90 m
Extension cable max. 30 m

Construction

- Bare copper braid, fine stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Conductor insulation Polyolefin
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- G = with green/yellow ground conductor, × = without ground conductor
- Control pair color-coded (bw, wb), BUS element color-coded (bw, wb)
- Control pair and BUS element each with braided shield and foil taping
- Strands for the power supply, element brake and element BUS braided together
- Non-woven material over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special-PUR, matt, adhesion-free surface
- Jacket color orange RAL 2003

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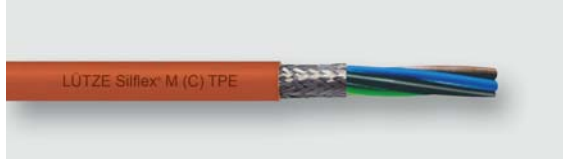
* UL approval and technical data shown apply to the cable used in the assemblies



Part No.	Allen-Bradley designation	Length m	Number of strands/ cross-section	OD Ø ca. mm
Base cable SpeedTec				
193366.1000	2090-CSBM1DF-18AF10	10	(4G1.0+(2×0.75)+(2×AWG22))	11.8
193364.1000	2090-CSBM1DF-14AF10	10	(4G2.5+(2×1.0)+(2×AWG22))	14.0
193371.1000	2090-CSWM1DF-18AF10	10	(4G1.0+(2×AWG22))	11.8
193370.1000	2090-CSWM1DF-14AF10	10	(4G2.5+(2×AWG22))	14.0
193375.1000	2090-CSBM1DF-10AF10	10	(4G6+(2×1.0)+(2×AWG22))	17.8
193376.1000	2090-CSWM1DF-10AF10	10	(4G6+(2×AWG22))	17.8
193300.1000	2090-CSBM1DG-18AF10	10	(4G1.0+(2×0.75)+(2×AWG22))	11.8
193302.1000	2090-CSBM1DG-14AF10	10	(4G2.5+(2×1.0)+(2×AWG22))	14.0
193304.1000	2090-CSBM1DG-10AF10	10	(4G6+(2×1.0)+(2×AWG22))	17.8
193305.1000	2090-CSWM1DG-18AF10	10	(4G1.0+(2×0.75)+(2×AWG22))	11.8
193310.1000	2090-CSWM1DG-14AF10	10	(4G2.5+(2×1.0)+(2×AWG22))	14.0
Base cable with 2198-KITCON-DSL				
193952.1000	2090-CSBM1DE-18AF10	10	(4G1.0+(2×0.75)+(2×AWG22))	11.8
193963.1000	2090-CSBM1DE-14AF10	10	(4G2.5+(2×1.0)+(2×AWG22))	14.0
193379.1000	2090-CSWM1DE-18AF10	10	(4G1.0+(2×AWG22))	11.8
193955.1000	2090-CSWM1DE-14AF10	10	(4G2.5+(2×AWG22))	14.0
193968.1000	2090-CSBM1DE-10AF10	10	(4G6+(2×1.0)+(2×AWG22))	17.8
193967.1000	2090-CSWM1DE-10AF10	10	(4G6+(2×AWG22))	17.8
Extension SpeedTec				
193373.1000	2090-CSBM1E1-18AF10	10	(4G1.0+(2×0.75)+(2×AWG22))	11.8
193374.1000	2090-CSBM1E1-14AF10	10	(4G2.5+(2×1.0)+(2×AWG22))	14.0
193377.1000	2090-CSBM1E1-10AF10	10	(4G6+(2×1.0)+(2×AWG22))	17.8

TPE Motor cables · shielded · static

LÜTZE SILFLEX® M (C) TPE POWER TRAY CABLE Flexible Motor Cable for Allen-Bradley and other systems



Application

- Shielded multi-conductor cable for motor and servo motor applications
- Cable design for harsh industrial environments and operating conditions with high noise levels
- Improved insulation design with additional conductor stress relief layer as a power distortion suppressant
- Compliant with NFPA 79 for machine tool wiring
- TC-ER for use with cable trays without conduit, which can reduce material and labor costs
- UL Type 1000V Flexible Motor Supply Cable for Motor/Power applications
- Dry, damp and wet locations

Properties

- Conductor stress relief layer prevents premature cable failure and reduces corona effects, increasing reliability and lifetime
- Flexible design with Nylon for crush impact resistance per UL 1277 and easy installation
- Very round cable with small diameter
- Specially formulated TPE jacket for superior oil resistance per Oil Res I and II
- Resistant to many mineral and vegetable based cutting oils
- Non-wicking fillers
- Sunlight resistant
- Direct burial
- UL Type TC-Exposed Run
- Talc free and Silicone free

Technical data

Nominal voltage	1000 V Flexible Motor Supply 1000 V WTTC 600 V UL TC 600 V UL MTW 600 V UL AWM 105 °C
Temperature range	
moving	-5 °C to +90 °C
fixed	-40 °C to +90 °C (105 °C)
Minimum bending radius	
moving	D × 15
fixed	D × 6
Approvals	UL Flexible Motor Supply Cable UL Type WTTC 1000 V UL Type TC-ER MTW 600 V UL AWM Style 20328 CE RoHS REACH Class 1 Div. 2 per NEC Art. 336, 392, 501 C(UL) TC and CIC FT4 UL 1277 Oil Res I and II

Construction

- Bare E-copper wire, ASTM, AWG Class K
- PVC/Nylon insulation with conductor stress relief layer
- Braid from tinned copper wire, optical coverage ≥85%
- Strand color brown, black, bluePair: black, white
- Ground conductor green/yellow
- Outer jacket Special TPE according to UL 1581
- Jacket color orange RAL 2003

Part No.	No. of conductors incl. ground	Outer Ø mm	Outer Ø inches	Weight Lbs/Mft	Cu-Index Lbs/Mft
Construction without signal pair					
A3161604	AWG 16 (16/30) (4GAWG16)	10.5	0.410	124	50
A3161404	AWG 14 (41/30) (4GAWG14)	11.6	0.455	159	71
A3161204	AWG 12 (65/30) (4GAWG12)	13.1	0.510	214	107
A3161004	AWG 10 (105/30) (4GAWG10)	16.5	0.650	321	161
A3160804	AWG 8 (168/30) (4GAWG8)	21.0	0.825	490	267
Construction with one signal pair					
A3171604	AWG 16 (16/30) (4GAWG16+(2×AWG18))	12.1	0.477	161	72
A3171404	AWG 14 (41/30) (4GAWG14+(2×AWG18))	12.8	0.505	196	92
A3171204	AWG 12 (65/30) (4GAWG12+(2×AWG18))	15.0	0.581	263	128
A3171004	AWG 10 (105/30) (4GAWG10+(2×AWG18))	18.1	0.716	380	191
A3170804	AWG 8 (168/30) (4GAWG8+(2×AWG18))	22.5	0.890	568	285
A3170604	AWG 6 (266/30) (4GAWG6+(2×AWG18))	25.5	1.000	786	417
A3170404	AWG 4 (413/30) (4GAWG4+(2×AWG18))	29.5	1.162	1119	613
A3170204	AWG 2 (665/30) (4GAWG2+(2×AWG18))	34.1	1.340	1543	983

PUR servo cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements



Application

- Connection cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Due to optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resistance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weatherproof, ozone and UV resistant (normal lighting conditions)
- Good ruggedness and salt water resistance
- Excellent coolant and lubricant resistance
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL style	AWM 21223
Rated voltage UL	1000 V
Rated voltage U ₀ /U	600/1000 V
Test voltage type	AC 4000 V
Insulation resistance at 20 °C	≥ 500 MΩ×km
Temperature according to UL	80 °C
Temperature range moving	-25 °C ... +80 °C
Temperature range fixed	-40 °C ... +80 °C
Minimum bending radius moving	7.5×D ≤16 mm ²
Minimum bending radius fixed	5×D
Burning behavior	VDE 0482 Part 265-2 DIN EN 50265-2 IEC 60332-1 UL 1581 Part 1080 VW-1 CSA FT1
Halogen free according to	IEC 60754-1 EN 50267-2-1

Construction

- Conductor: CU-wire bare
- Conductor category: IEC 60228, Class 6
- Conductor insulation: Special TPE
- Conductor marking: black, with white print, U/L1/C/L+, V/L2, W/L3/D/L, green/yellow
- Conductor marking standard: DIN EN 50334
- Overall stranding: Conductors twisted without mechanical stress
- Overall wrapping: Non-woven material
- Overall shield: Braid shield, Tinned copper wires, optical cover approx. 85%
- Ground conductor: green/yellow according to DIN EN 50334
G = with green/yellow ground conductor, * = without ground conductor
- Jacket material: PUR
- Surface: adhesion-free, matt
- Jacket color: orange RAL 2003

Part No.	Number of conductors/cross-section	Outer Ø mm	Weight kg/100 m	Cu-Index kg/100 m
Construction without signal pair				
111879	(4G1.0)	7.4	10.8	6.5
111460	(4G1.5)	8.6	11.7	8.3
111461	(4G2.5)	10.8	17.3	13.0
111462	(4G4)	12.2	24.5	19.3
111463	(4G6)	14.0	36.5	27.5
111464	(4G10)	17.6	54.9	45.0
111465	(4G16)	21.2	84.9	72.0
111466	(4G25)	25.0	129.9	108.0
111467	(4G35)	28.8	169.2	152.4
111468	(4G50)	33.9	244.2	216.8
Construction with one signal pair				
111420	(4G1.5+(2×1.5))	11.4	21.0	14.9
111421	(4G2.5+(2×1.5))	12.9	23.5	19.3
111422	(4G4+(2×1.5))	14.5	32.0	25.5
111423	(4G6+(2×1.5))	16.1	43.0	33.9
111424	(4G10+(2×1.5))	19.5	68.0	52.6
111425	(4G16+(2×1.5))	23.6	95.6	77.3
111426	(4G25+(2×1.5))	28.5	136.5	113.0
111427	(4G35+(2×1.5))	31.0	274.6	159.0
111428	(4G50+(2×1.5))	34.5	373.7	224.0

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

*Siemens article designations are registered trademarks of Siemens AG

* UL approval and technical data shown apply to the cable used in the assemblies

TPE feedback cables · shielded · static

Feedback cables for Allen-Bradley and other Systems



Application

- Incremental encoder cable and resolver cable for tacho sensor, brake sensor, speed sensor
- Cable design for harsh industrial environments and operating conditions with high noise level
- UL listed and NFPA 79 compliant
- Dry, damp and wet locations

Properties

- High active and passive interference resistance (EMC)
- Flexible for easy installation
- Specially formulated TPE jacket for superior oil resistance according to UL1581
- Resistant to many mineral & vegetable based cutting oils
- Non-wicking fillers
- Extended temperature range and premium durability
- Sunlight resistant
- Talc and Silicone free

Technical data

Nominal voltage	600 V UL AWM 90 °C 300 V UL CM A1410001: 300 V UL PLTC-ER
Test voltage	1500 V
Temperature range	
moving	-5 °C to +90 °C
fixed	-40 °C to +90 °C (105 °C)
Minimum bending radius	
moving	D × 15
fixed	D × 6
Approvals	UL AWM Style 20626 UL CM, meets NEC 800 Oil Res I and II CE RoHS REACH A1410001: UL PLTC-ER, meets NEC 725 and Class I Div. 2

Construction

- Bare E-copper wire, ASTM, AWG Class K
- Conductor insulation Special-PVC
- Color coded wires
- Shielded with foil tape, drain wire and tinned copper braid shield, optical coverage ≥ 85 %
- Special TPE jacket Bio oil resistant
- Jacket color green RAL 6018

Part No.	Number of strands/cross-section/ strand colors	OD Ø ca. mm	OD Ø inches	Weight Lbs/Mft	Cu-Index Lbs/Mft
A1410001	(5×2×AWG22) black, black/white, red, red/white, green , green/white, yellow, yellow/white, orange, orange/white	9.9	0.390	102.0	40
A1410002	(1×2×AWG16+1×2×AWG22+6×2×AWG26) 1×2×AWG16 greenyellow/white, yellow/white 1×2×AWG22 orange, orange/white 6×2×AWG26 black, black/white, red, red/white, green , green/white, blue, blue/white, brown, brown/white, yellow, yellow/white	13.6	0.537	143.0	54

PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Allen-Bradley and other systems For highest requirements in drive technology



Application

- Incremental encoder cable, connection cable for tacho sensor, brake sensor, speed sensor
- Due to optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resistance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weatherproof, ozone and UV resistant (normal lighting conditions)
- Good ruggedness and salt water resistance
- Excellent coolant and lubricant resistance
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL style	AWM 21223
Rated voltage UL	1000 V
Test voltage type	AC 2000 V
Insulation resistance at 20 °C	≥ 200 MΩ×km
Temperature according to UL	80 °C
Temperature range moving	-25 °C ... +80 °C
Temperature range fixed	-40 °C ... +80 °C
Minimum bending radius moving	12×D
Minimum bending radius fixed	6×D
Burning behavior	VDE 0482 Part 265-2 DIN EN 50265-2 IEC 60332-1 UL 1581 Part 1080 VW-1 CSA FT1
Halogen free according to	EN 50267-2-1

Construction

- Conductor: CU-wire bare
- Conductor category: IEC 60228, Class 6, DIN EN 13602, Superflexily stranded DIN VDE 0295
- Conductor insulation: Special TPE
- Conductor marking: Colour coded
- Overall stranding: Elements stranded together
- Overall wrapping: Non-woven material
- Overall shield: Braid shield, Tinned copper wires, optical cover approx. 85%
- Jacket material: PUR
- Surface: adhesion-free, matt
- Jacket color: green RAL 6018

Part No.	Number of strands/cross-section/ strand colors	Outer Ø mm	Weight kg/100 m	Cu-Index kg/100 m
For Allen Bradley system (and similar)				
111489	(2×AWG16+2×AWG22+6×2×AWG26) 2×AWG16 white/grey, grey 2×AWG22 white/orange, orange 6×2×AWG26 black/white, white, red/white, red, green/white, green, blue/white, blue, brown/white, brown, yellow/white, yellow	10.8	18.0	12.0
111488	(5×2×AWG22) black/white, black, red/white, red, green/white, green, grey/white, grey, orange/white, orange	9.2	10.7	5.4

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

PUR servo cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards



Application

- Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Due to Full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely rough operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weatherproof, ozone and UV resistant (normal lighting conditions)
- Good ruggedness and salt water resistance
- Excellent coolant and lubricant resistance
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL style	AWM 21223
Rated voltage UL	1000 V
Rated voltage U_0/U	600/1000 V
Test voltage type	AC 3000 V
Insulation resistance at 20°C	≥ 500 MΩ×km
Temperature according to UL	80 °C
Temperature range moving	-25 °C ... +80 °C
Temperature range fixed	-40 °C ... +80 °C
Minimum bending radius	7.5×D
Minimum bending radius fixed moving	5×D
Burning behavior	VDE 0482 Part 265-2 DIN EN 50265-2 IEC 60332-1 UL 1581 Part 1080 VW-1 CSA FT1
Halogen free according to	EN 50267-2-1 IEC 60754-1

Construction

- Conductor: CU-wire bare
- Conductor category: IEC 60228, Class 6, DIN EN 13602, Superfinely stranded DIN VDE 0295
- Conductor insulation: TPE-O
- Conductor marking: U/L1/C/L+, V/L2, W/L3/D/L, green/yellow
- Conductor marking standard: DIN EN 50334, DIN VDE 0293
- Overall stranding: Elements stranded together
- Overall wrapping: Non-woven material
- Overall shield: Braid shield, Tinned copper wires, optical cover approx. 85%
- Ground conductor: green/yellow according to DIN EN 50334
G = with green/yellow ground conductor, × = without ground conductor
- Jacket material: PUR
- Jacket color: orange RAL 2003

Part No.	Number of conductors/cross-section	Outer Ø mm	Weight kg/100 m	Cu-Index kg/100 m
111598	(4G0.75+(2×0.34)+(2×AWG22))	11.4	21.1	13.3
111599	(4G1.0+(2×0.75)+(2×AWG22))	11.8	19.0	11.2
111600	(4G1.5+(2×0.75)+(2×AWG22))	13.2	25.2	16.0
111601	(4G2.5+(2×1.0)+(2×AWG22))	14.0	31.4	21.5
111602	(4G4+(2×1.0)+(2×AWG22))	15.8	40.8	28.8
111603	(4G6+(2×1.0)+(2×AWG22))	17.8	51.2	37.2
111604	(4G10+(2×1.5)+(2×AWG22))	21.0	77.9	57.3
111605	(4G16+(2×1.5)+(2×AWG22))	26.0	119.8	87.0

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

Cable Installation of static cables

Proper handling and installation of static cables

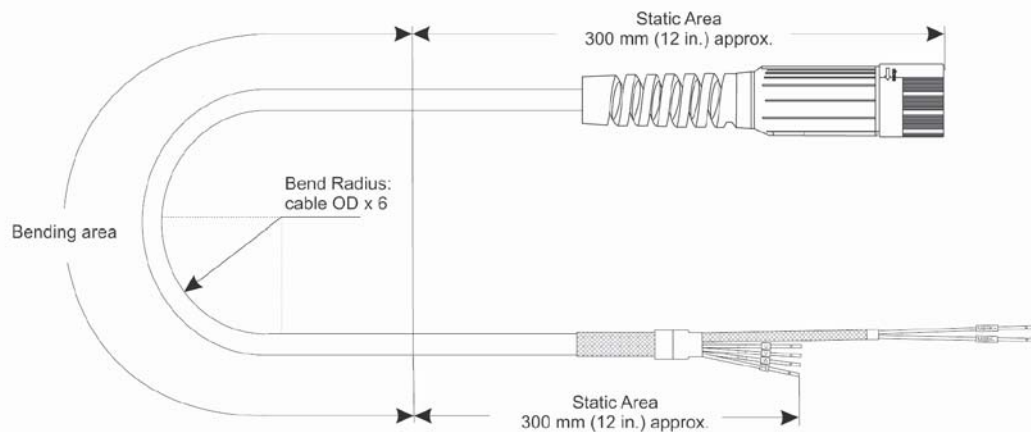
Installing the cable assembly:

1. The minimum bend radius for the utilized LÜTZE cable is 6 x cable OD.

NEC requirements may require a greater bend radius, see NEC article 300.34

2. Bending shall not occur within the static area (relaxation zone) in order to avoid strain on the connector or terminals.

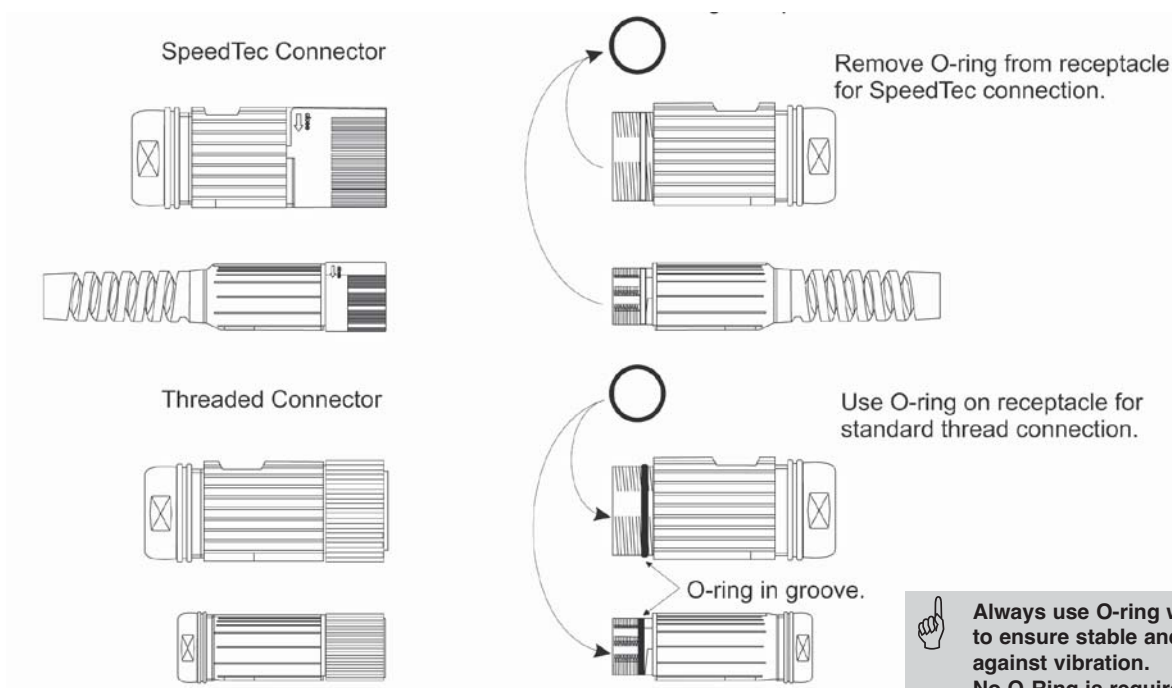
Do not bend the cable within the static area.



Use of O-ring: Standard thread vs. SpeedTec

Remove O-ring on the motor receptacle when using a cable with a SpeedTec connector.

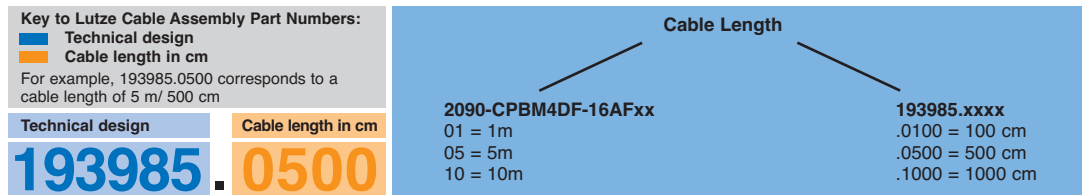
The connector type on the cable determines whether an O-ring is required on the receptacle.



**Always use O-ring with threaded connectors to ensure stable and secure connection against vibration.
No O-Ring is required with SpeedTec connectors.**

Key to LÜTZE Partnumber

The LÜTZE Partnumber consists of two blocks:



LÜTZE cable assemblies are fully compatible with Rockwell Allen-Bradley systems.

Feedback				
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CFBM7DF-CEAAxx	193959.xxxx	A1410001	(5x2xAWG22)
	2090-CFBM7DD-CEAAxx	193358.xxxx	A1410001	(5x2xAWG22)
DIN thread	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-XXNFMF-Sxx	193337.xxxx	A1410002	(2XAWG16+2XAWG22+6X2XAWG26)
Motor				
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CPWM7DF-16AAxx	193966.xxxx	A3161604	(4GAWG16)
	2090-CPWM7DF-14AAxx	193956.xxxx	A3161404	(4GAWG14)
	2090-CPWM7DF-12AAxx	193352.xxxx	A3161204	(4GAWG12)
	2090-CPWM7DF-10AAxx	193306.xxxx	A3161004	(4GAWG10)
	2090-CPWM7DF-08AFxx	193353.xxxx	A3160804	(4GAWG08)
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CPBM7DF-16AAxx	193960.xxxx	A3171604	(4GAWG16 + (2xAWG18))
	2090-CPBM7DF-14AAxx	193990.xxxx	A3171404	(4GAWG14 + (2xAWG18))
	2090-CPBM7DF-12AAxx	193356.xxxx	A3171204	(4GAWG12 + (2xAWG18))
	2090-CPBM7DF-10AAxx	193962.xxxx	A3171004	(4GAWG10 + (2xAWG18))
	2090-CPBM7DF-08AAxx	193357.xxxx	A3170804	(4GAWG8 + (2xAWG18))
	2090-CPBM7DF-06AAxx	193961.xxxx	A3170604	(4GAWG6 + (2xAWG18))
	2090-CPBM7DF-04AAxx	193362.xxxx	A3170404	(4GAWG4 + (2xAWG18))
	2090-CPBM7DF-02AAxx	193369.xxxx	A3170204	(4GAWG2 + (2xAWG18))
DIN thread	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-XXNPMF-16Sxx	193951.1000	111271	(4G1,5+2x(2x0,75))
	2090-XXNPMF-14Sxx	193950.1000	111279	(4G2,5+2x(2x1,0))

Cable Installation of flexing cables

Proper handling and installation of flexing cables

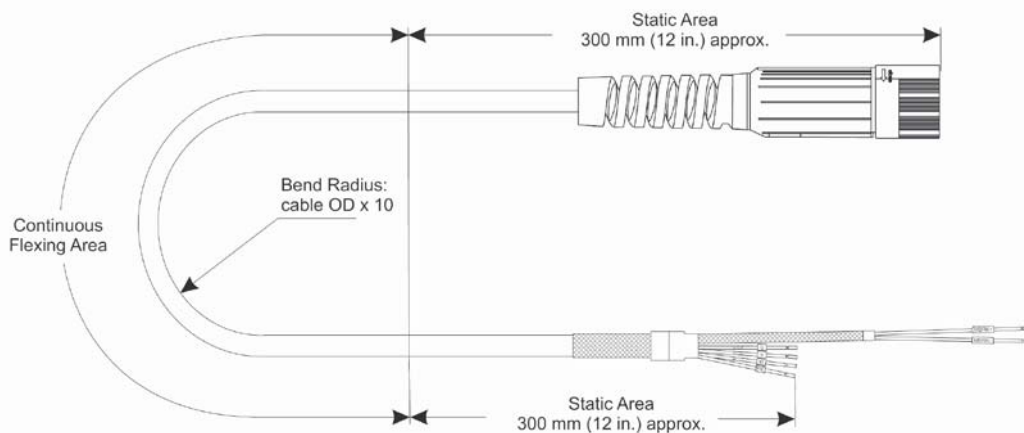
Continuous flexing cables require special handling and installation techniques. To ensure the longest possible life span for your cable assembly, it is important to follow installation procedures precisely.

1. Do not flex cable against original bend. If needed, let cable relax before installation.
2. Refrain from twisting the cable during installation and check that the cable is laying straight in the drag chain.
3. Allow for balanced weight distribution in the drag chain.

4. Use horizontal/vertical dividers to split the drag chain into separate cavities to avoid tangling of the cables.

Desired cavity size depends on cable diameter and should be adjusted to each application separately.

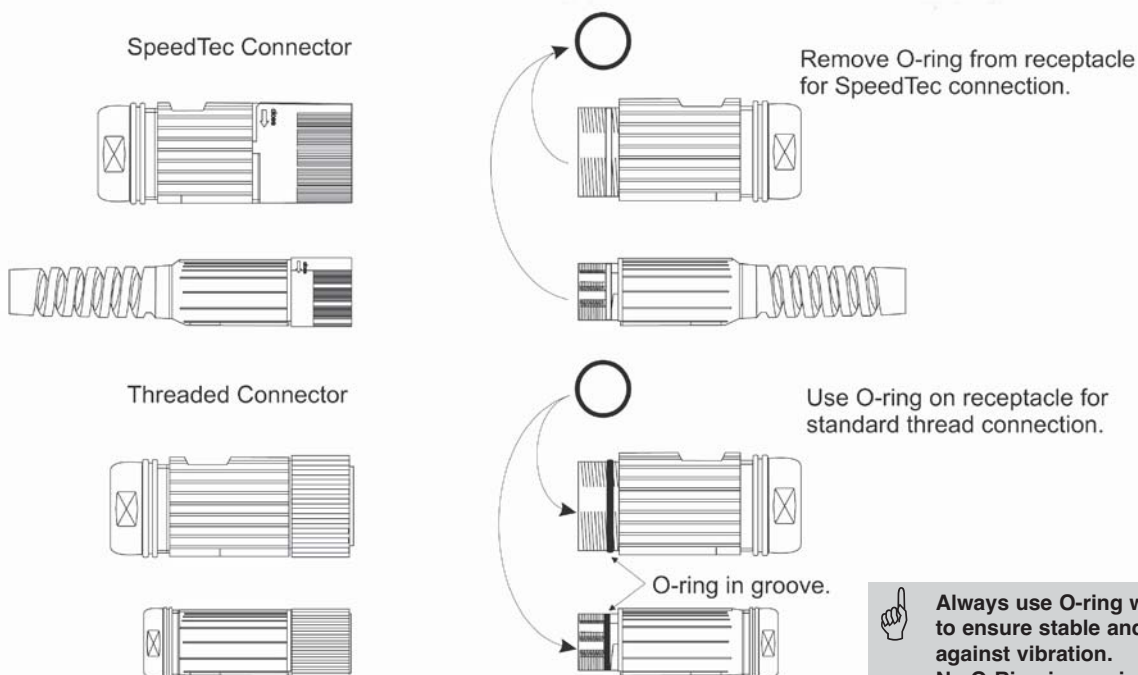
5. Observe minimum bend radius for optimal performance.
6. Ensure proper strain relief at both ends of the drag chain. Observe minimum Static Area lengths.



Use of O-ring: Standard thread vs. SpeedTec

Remove O-ring on the motor receptacle when using a cable with a SpeedTec connector.

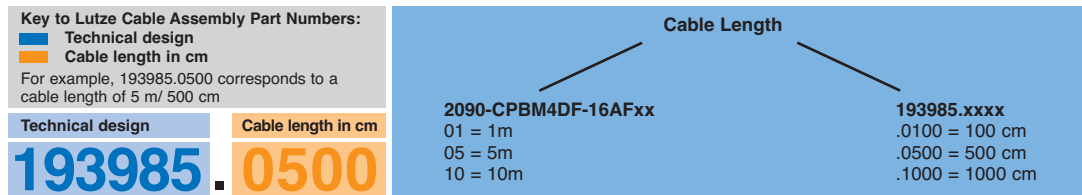
The connector type on the cable determines whether an O-ring is required on the receptacle.



Always use O-ring with threaded connectors to ensure stable and secure connection against vibration. No O-Ring is required with SpeedTec connectors.

Key to LÜTZE Partnumber

The LÜTZE Partnumber consists of two blocks:



LÜTZE cable assemblies are fully compatible with Rockwell Allen-Bradley systems.

Feedback				
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CFBM7DF-CDAFxx	193958.xxxx	111489	(2XAWG16+2XAWG22+6X2XAWG26)
	2090-CFBM7DF-CEAFxx	193977.xxxx	111488	(5x2xAWG22)
	2090-CFBM7DD-CEAFxx	193350.xxxx	111488	(5x2xAWG22)
DIN thread	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CFBM4DF-CDAFxx	193973.xxxx	111489	(2XAWG16+2XAWG22+6X2XAWG26)
Extension	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CFBM7E7-CDAFxx	193978.xxxx	111489	(2XAWG16+2XAWG22+6X2XAWG26)
	2090-CFBM7E7-CEAFxx	193979.xxxx	111488	(5x2xAWG22)
Motor				
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CPWM7DF-16AFxx	193309.xxxx	111460	(4G1,5)
	2090-CPWM7DF-14AFxx	193308.xxxx	111461	(4G2,5)
	2090-CPWM7DF-10AFxx	193307.xxxx	111463	(4G6)
	2090-CPWM7DF-08AFxx	193311.xxxx	111464	(4G10)
DIN thread	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CPWM4DF-16AFxx	193303.xxxx	111460	(4G1,5)
	2090-CPWM4DF-14AFxx	193301.xxxx	111461	(4G2,5)
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CPBM7DF-16AFxx	193991.xxxx	111420	(4G1,5)+(2x1,5))
	2090-CPBM7DF-14AFxx	193957.xxxx	111421	(4G2,5)+(2x1,5))
	2090-CPBM7DF-10AFxx	193989.xxxx	111423	(4G6)+(2x1,5))
	2090-CPBM7DF-08AFxx	193355.xxxx	111424	(4G10)+(2x1,5))
DIN thread	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CPBM4DF-16AFxx	193985.xxxx	111420	(4G1,5)+(2x1,5))
	2090-CPBM4DF-14AFxx	193983.xxxx	111421	(4G2,5)+(2x1,5))
Extension	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CPBM7E7-16AFxx	193996.xxxx	111420	(4G1,5)+(2x1,5))
	2090-CPBM4E7-14AFxx	193360.xxxx	111421	(4G2,5)+(2x1,5))
	2090-CPBM7E7-10AFxx	193994.xxxx	111423	(4G6)+(2x1,5))
	2090-CPBM4E7-08AFxx	193361.xxxx	111424	(4G10)+(2x1,5))
Hybrid				
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CSBM1DG-18AFxx	193300.xxxx	111599	(4G1,0)+(2x0,75)+(2xAWG22))
	2090-CSBM1DG-14AFxx	193302.xxxx	111601	(4G2,5+(2x1,0)+(2xAWG22))
	2090-CSBM1DG-10AFxx	193304.xxxx	111603	(4G6+(2x1,0)+(2xAWG22))
	2090-CSWM1DG-18AFxx	193305.xxxx	111599	(4G1,0+(2x0,75)+(2xAWG22))
	2090-CSWM1DG-14AFxx	193310.xxxx	111601	(4G2,5+(2x1,0)+(2xAWG22))
Base cable with 2198-KITCON-DSL				
Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type	
2090-CSBM1DE-18AFxx	193952.xxxx	111599	(4G1.0+(2x0.75)+(2xAWG22))	
2090-CSBM1DE-14AFxx	193963.xxxx	111601	(4G2.5+(2x1.0)+(2xAWG22))	
2090-CSWM1DE-18AFxx	193379.xxxx	111599	(4G1.0+(2x0.75)+(2xAWG22))	
2090-CSWM1DE-14AFxx	193955.xxxx	111601	(4G2.5+(2x1.0)+(2xAWG22))	
2090-CSBM1DE-10AFxx	193968.xxxx	111603	(4G6+(2x1.0)+(2xAWG22))	
2090-CSWM1DE-10AFxx	193967.xxxx	111603	(4G6+(2x1.0)+(2xAWG22))	
Extension				
Speed Tec	Allen Bradley Part. No.	LÜTZE Part. No.	LÜTZE Cable	Type
	2090-CSBM1E1-18AFxx	193373.xxxx	111599	(4G1,0+(2x0,75)+(2xAWG22))
	2090-CSBM1E1-14AFxx	193374.xxxx	111601	(4G2,5+(2x1,0)+(2xAWG22))
	2090-CSBM1E1-10AFxx	193377.xxxx	111603	(4G6+(2x1,0)+(2xAWG22))



Always connected properly Cable assemblies by LÜTZE

Helical cables - Manufactured to meet your specifications, our helical cables are suitable for high mechanical loads such as high-performance machines, lifting



platforms and lots of other moving applications. Also highly suited for use outside for millions of load changes without failure!



Moulded closed

LÜTZE Tamper-proof connector plastic moulded round plug connectors M23 for industrial use offer the user an economical and, at the same time, safe solution for the electrical connection of machines and systems.

The LÜTZE program contains various termination numbers and cable lengths. This means terminations of 6 - 28 and transfer outputs of up to 30 A

at 630 V, and therefore robust, safe cabling is available for numerous signal and power applications.

The integrated protection against kinking and the inner metal housing with 360° EMC shielding ensure the cable assemblies meet the requirements for the industrial sector - **they really are sealed shut**

Other benefits:

- Tamper-proof: To prevent the connector casing from being opened or wrong connections within the connector
- Integrated anti-kink device
- 100 % compatible with BOSCH REXROTH®, SIEMENS®, Allen-Bradley®...
- Production of single unit available
- Available at short notice
- Protection class IP66/67

Customer-specific solutions

Each installation is different. Therefore, make use of our cable assembly expertise; experts will plan your project and document your application making use of a

product range containing more than 1700 cables, connectors, strain relief elements and protective hoses.



Servomotor cables for C-tracks

According to Bosch Rexroth RKL standard



Application

- Motor cable for Bosch Rexroth SERVO drives
- Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265/2, IEC 60332-1, UL 1581 section 1080 VW-1 CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Jacket color orange RAL 2003

Part-No.	BOSCH REXROTH designation*	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
Base cable				
193262.1000	RKL0014	10.0	(4G1.0+2×(2×0.75))	12.5
193089.1000	RKL0015	10.0	(4G1.5+2×(2×0.75))	12.9
193090.1000	RKL0016	10.0	(4G1.5+2×(2×0.75))	12.9
193091.1000	RKL0017	10.0	(4G1.5+2×(2×0.75))	12.9
193092.1000	RKL0018	10.0	(4G2.5+2×(2×1.0))	14.2
193093.1000	RKL0019	10.0	(4G1.0+2×(2×0.75))	12.5
193095.1000	RKL0046	10.0	(4G2.5+2×(2×1.0))	14.2
193097.1000	RKL4349	10.0	(4G6+(2×1.0)+(2×1.5))	18.4
193098.1000	RKL0050	10.0	(4G1.5+2×(2×0.75))	12.9
193100.1000	RKL0052	10.0	(4G2.5+2×(2×1.0))	14.2
193101.1000	RKL0053	10.0	(4G1.0+2×(2×0.75))	12.5
193105.1000	RKL0057	10.0	(4G2.5+2×(2×1.0))	14.2
193106.1000	RKL0058	10.0	(4G4+(2×1.0)+(2×1.5))	16.3
193125.1000	RKL4300	10.0	(4G1.5+2×(2×0.75))	12.9
193107.1000	RKL4301	10.0	(4G1.5+2×(2×0.75))	12.9
193240.1000	RKL4302	10.0	(4G1.0+2×(2×0.75))	12.5
193258.1000	RKL4303	10.0	(4G1.0+2×(2×0.75))	12.5
193241.1000	RKL4306	10.0	(4G1.5+2×(2×0.75))	12.9
193273.1000	RKL4307	10.0	(4G1.5+2×(2×0.75))	12.9
193242.1000	RKL4308	10.0	(4G2.5+2×(2×1.0))	14.2
193243.1000	RKL4309	10.0	(4G2.5+2×(2×1.0))	14.2
193244.1000	RKL4310	10.0	(4G2.5+2×(2×1.0))	14.2
193108.1000	RKL4313	10.0	(4G4+(2×1.0)+(2×1.5))	16.3
193257.1000	RKL4314	10.0	(4G4+(2×1.0)+(2×1.5))	16.3
193109.1000	RKL4315	10.0	(4G4+(2×1.0)+(2×1.5))	16.3
193246.1000	RKL4317	10.0	(4G6+(2×1.0)+(2×1.5))	18.4
193247.1000	RKL4318	10.0	(4G6+(2×1.0)+(2×1.5))	18.4
193276.1000	RKL4345	10.0	(4G2.5+2×(2×1.0))	14.2
193119.1000	RKL4346	10.0	(4G2.5+2×(2×1.0))	14.2
Extension				
193278.1000	RKL4304	10.0	(4G1.5+2×(2×0.75))	12.9
193616.1000	RKL4305	10.0	(4G1.0+2×(2×0.75))	12.5
193263.1000	RKL4311	10.0	(4G1.5+2×(2×0.75))	12.9
193245.1000	RKL4312	10.0	(4G2.5+2×(2×1.0))	14.2
193110.1000	RKL4316	10.0	(4G4+(2×1.0)+(2×1.5))	16.3
193279.1000	RKL4319	10.0	(4G6+(2×1.0)+(2×1.5))	18.4
193120.1000	RKL4347	10.0	(4G2.5+2×(2×1.0))	14.2

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Servomotor cables for C-tracks

According to Bosch Rexroth RKL standard



Application

- Motor cable for Bosch Rexroth SERVO drives
- Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage U_0/U	0.6/1 kV
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265/2, IEC 60332-1, UL 1581 section 1080 VW-1 CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Jacket color orange RAL 2003



Part-No.	BOSCH REXROTH designation*	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
Base cable				
193094.1000	RKL0045	10.0	(4G1,5+2×(2×0,75))	12.9
193099.1000	RKL0051	10.0	(4G2,5+2×(2×1,0))	14.2
193102.1000	RKL4354	10.0	(4G1,5+2×(2×0,75))	12.9
193103.1000	RKL0055	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193104.1000	RKL0056	10.0	(4G4+(2×1,0)+(2×1,5))	16.3
193259.1000	RKL4320	10.0	(4G1,5+2×(2×0,75))	12.9
193252.1000	RKL4321	10.0	(4G2,5+2×(2×1,0))	14.2
193282.1000	RKL4322	10.0	(4G4+(2×1,0)+(2×1,5))	16.3
193248.1000	RKL4323	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193249.1000	RKL4324	10.0	(4G10+(2×1,0)+(2×1,5))	22.3
193272.1000	RKL4325	10.0	(4G1,5+2×(2×0,75))	12.9
193111.1000	RKL4326	10.0	(4G2,5+2×(2×1,0))	14.2
193112.1000	RKL4327	10.0	(4G4+(2×1,0)+(2×1,5))	16.3
193250.1000	RKL4328	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193251.1000	RKL4329	10.0	(4G10+(2×1,0)+(2×1,5))	22.3
193254.1000	RKL4331	10.0	(4G25+2×(2×1,5))	29.3
193113.1000	RKL4332	10.0	(4G35+2×(2×1,5))	32.5
193114.1000	RKL4333	10.0	(4G25+2×(2×1,5))	29.3
193115.1000	RKL4334	10.0	(4G35+2×(2×1,5))	32.5
193260.1000	RKL4343	10.0	(4G2,5+2×(2×1,0))	14.2
193118.1000	RKL4344	10.0	(4G16+2×(2×1,5))	26.8
193121.1000	RKL4349	10.0	(4G16+2×(2×1,5))	26.8
193122.1000	RKL4387	10.0	(4G35+2×(2×1,5))	32.5
193123.1000	RKL4778	10.0	(4G35+2×(2×1,5))	32.5
193124.1000	RKL4785	10.0	(4G25+2×(2×1,5))	29.3
Extension				
193116.1000	RKL4335	10.0	(4G1,5+2×(2×0,75))	12.9
193004.1000	RKL4336	10.0	(4G2,5+2×(2×1,0))	14.2
193255.1000	RKL4337	10.0	(4G4+(2×1,0)+(2×1,5))	16.3
193256.1000	RKL4338	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193270.1000	RKL4339	10.0	(4G10+(2×1,0)+(2×1,5))	22.3
193271.1000	RKL4340	10.0	(4G16+2×(2×1,5))	26.8
193264.1000	RKL4341	10.0	(4G25+2×(2×1,5))	29.3
193117.1000	RKL4342	10.0	(4G35+2×(2×1,5))	32.5

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Servomotor cables for C-tracks

According to Bosch Rexroth IKG standard



Application

- Motor cable for Bosch Rexroth SERVO drives
- Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Technical data

Nominal voltage	1000 V 80 °C
Voltage	
U_0/U	0.6/1 kV
Insulation resistance	min. 500 MΩ × km
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265/2, IEC 60332-1, UL 1581 section 1080 VW-1 CSA FT 1
Halogen free	nach DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Jacket color orange RAL 2003

Part-No.	BOSCH REXROTH designation*	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
Base cable				
193028.1000	IKG4115	10.0	(4G1,5+2×(2×0,75))	12.9
193029.1000	IKG4116	10.0	(4G2,5+2×(2×1,0))	14.2
193054.1000	IKG4117	10.0	(4G4+(2×1,0)+(2×1,5))	16.3
193055.1000	IKG4118	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193037.1000	IKG4175	10.0	(4G10+(2×1,0)+(2×1,5))	22.3
193030.1000	IKG4136	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193062.1000	IKG4176	10.0	(4G10+(2×1,0)+(2×1,5))	22.3
193031.1000	IKG4140	10.0	(4G1,5+2×(2×0,75))	12.9
193060.1000	IKG4139	10.0	(4G2,5+2×(2×1,0))	14.2
193038.1000	IKG4177	10.0	(4G4+(2×1,0)+(2×1,5))	16.3
193039.1000	IKG4215	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193077.1000	IKG4169	10.0	(4G10+(2×1,0)+(2×1,5))	22.3
193032.1000	IKG4155	10.0	(4G6+(2×1,0)+(2×1,5))	18.4
193078.1000	IKG4168	10.0	(4G10+(2×1,0)+(2×1,5))	22.3
193061.1000	IKG4172	10.0	(4G16+2×(2×1,5))	26.8
193035.1000	IKG4173	10.0	(4G25+2×(2×1,5))	29.3
193036.1000	IKG4174	10.0	(4G35+2×(2×1,5))	32.5
193033.1000	IKG4620	10.0	(4G25+2×(2×1,5))	29.3
193079.1000	IKG4621	10.0	(4G35+2×(2×1,5))	32.5

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Signal cables for C-tracks

According to Bosch Rexroth IKS standard



Application

- Signal cables
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-track, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	300 V 80 °C
Voltage U_0/U	0.6/1 kV
Insulation resistance	min. 200 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 12
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265/2, IEC 60332-1, UL 1581 section 1080 VW-1 CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Jacket color orange RAL 2003

Part-No.	BOSCH REXROTH designation*	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
Base cable				
193126.1000	RKG0030	10.0	(2×1,0+4×2×0,25)	8.9
193034.1000	RKG4200	10.0	(2×0,5+4×2×0,25)	8.7
193088.1000	RKG4202	10.0	(2×0,5+4×2×0,25)	8.7
193164.1000	IKS4038	10.0	(2×(0,5)+3×(2×0,14))	8.7
Extension				
193001.1000	RKG4201	10.0	(2×0,5+4×2×0,25)	8.7

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PVC servo cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Supply line for Bosch Rexroth and other systems

For highest requirements



Application

- For Indramat* system (and similar)
- Connection cable motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Due to Full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely rough operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weatherproof, ozone and UV resistant (normal lighting conditions)
- Good ruggedness and salt water resistance
- Excellent coolant and lubricant resistance
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 21223
Nominal voltage	1000 V 80 °C
Voltage U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to IEC 60332-1-2, EN 50265-1-2, UL 1581, CSA C22.2 No. 210.2 Flame Rating FT1
Halogen free	according IEC 60754-1, EN 50267-2-1

Construction

- Bare copper wire, super finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Conductor insulation Special TPE, high glide
- Power conductors black with number print (1, 2, 3)
- Ground conductor green/yellow according to DIN EN 50334
- G = with green/yellow ground conductor, * = without ground conductor
- Control pairs digits printing (5, 6) (7, 8)
- Control pair with braided shield and foil tape
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special-PUR, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part-No.	Number of conductors/cross-section	INK* Description	Outer Ø ca. mm	Weight kg/100 m	Cu-Index kg/100 m
Construction with two control pairs					
111719	(4G0.75+2×(2×0.34))	-----	11.2	17.7	9.5
111270	(4G1.0+2×(2×0.75))	INK 0653	12.5	23.2	13.8
111271	(4G1.5+2×(2×0.75))	INK 0650	12.9	25.5	16.2
111279	(4G2.5+2×(2×1.0))	INK 0602	14.2	33.0	22.6
111388	(4G4+(2×1.0)+(2×1.5))	INK 0603	16.3	38.0	32.9
111998	(4G6+(2×1.0)+(2×1.5))	INK 0604	18.4	53.0	38.5
111762	(4G10+(2×1.0)+(2×1.5))	INK 0605	22.3	76.5	57.0
111276	(4G16+2×(2×1.5))	INK 0606	26.8	106.4	89.1
111277	(4G25+2×(2×1.5))	INK 0607	29.3	171.4	126.0
111278	(4G35+2×(2×1.5))	INK 0667	32.5	217.6	164.0

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

*Indramat article designations are registered trademarks

PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Bosch-Rexroth and other systems For highest requirements in drive technology



Application

- Incremental encoder cable, connection cable for tacho sensor, brake sensor, speed sensor
- Due to Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weatherproof, ozone and UV resistant (normal lighting conditions)
- Good ruggedness and salt water resistance
- Excellent coolant and lubricant resistance
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 20233
Nominal voltage	300 V 80 °C
Test voltage	2000 V
Insulation resistance	min. 200 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 12
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 part 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to EN 50267-2-1

Construction

- Bare copper wire, super finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Conductor insulation Special-TPE
- Conductors color-coded for specific system
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special-PUR, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part-No.	Number of strands/cross-section/ strand colors	INK* De- scription	Outer Ø ca. mm	Weight kg/100 m	Cu-Index kg/100 m
For Bosch-Rexroth system (and similar)					
110941	(2 × 1.0+4 × 2 × 0.25) 1.0: white, brown 0.25: brown/green, grey/pink, blue/violet, red/black	INK-0209*	8.9	12.0	6.4
111780	(2 × 0.5+4 × 2 × 0.25) 0.5: white, brown 0.25: brown/green, grey/pink, blue/violet, red/black	INK-0448*	8.7	10.0	5.9
110940	(9 × 0.5) Strand color according to DIN 47100	INK-0208*	8.8	12.5	7.5
111495	(4 × 1.0+4 × 2 × 0.14+(4 × 0.14)) 1.0: blue, whitegreen, browngreen, white 0.14: grey/pink, yellow/violet, green/brown, red/black (0.14): greenblack, blueblack, yellowblack, redblack	INK-0532*	9.5	13.7	9.6
111781	(2 × 2 × 0.25+2 × 0.5) 0.5: white, brown 0.25: red/black, gray, pink	INK-0750*	7.6	9.0	4.2

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

*Indramat article designations are registered trademarks



Always connected properly Cable assemblies by LÜTZE

Helical cables - Manufactured to meet your specifications, our helical cables are suitable for high mechanical loads such as high-performance machines, lifting



platforms and lots of other moving applications. Also highly suited for use outside for millions of load changes without failure!



Moulded closed

LÜTZE Tamper-proof connector plastic moulded round plug connectors M23 for industrial use offer the user an economical and, at the same time, safe solution for the electrical connection of machines and systems.

The LÜTZE program contains various termination numbers and cable lengths. This means terminations of 6 - 28 and transfer outputs of up to 30 A

at 630 V, and therefore robust, safe cabling is available for numerous signal and power applications.

The integrated protection against kinking and the inner metal housing with 360° EMC shielding ensure the cable assemblies meet the requirements for the industrial sector - **they really are sealed as if potted!**

Other benefits:

- Tamper-proof: To prevent the connector casing from being opened or wrong connections within the connector
- Integrated anti-kink device
- 100 % compatible with SIEMENS®, BOSCH REXROTH®, LENZE®, SEW®...
- Production from a lot size of 1
- Available at short notice
- Protection class IP66/67

Customer-specific solutions

Each installation is different. Therefore, make use of our cable assembly expertise; experts will plan your project and document your application making use of a

product range containing more than 1700 cables, connectors, strain relief elements and protective hoses.



Servo cable assemblies without brake cores for fixed installation

Acc. to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing
- More cost-effective alternative to the cable chain version 6FX8002

Properties

- PVC Flame-retardant, self-extinguishing
- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special TPM/PP-conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
SINAMICS, speed-connect/Booksize				
198098.1000	6FX5002-5CN01-1BA0*	10.0	(4G1.5)	8.4
198103.1000	6FX5002-5CN11-1BA0*	10.0	(4G2.5)	10.6
198104.1000	6FX5002-5CN21-1BA0*	10.0	(4G1.5)	8.4
198106.1000	6FX5002-5CN31-1BA0*	10.0	(4G2.5)	10.6
198107.1000	6FX5002-5CN41-1BA0*	10.0	(4G4)	11.5
198108.1000	6FX5002-5CN51-1BA0*	10.0	(4G6)	13.2
198109.1000	6FX5002-5CN61-1BA0*	10.0	(4G10)	16.5
SINAMICS, full thread/Booksize				
198205.1000	6FX5002-5CS01-1BA0*	10.0	(4G1.5)	8.4
198124.1000	6FX5002-5CS11-1BA0*	10.0	(4G2.5)	10.6
198128.1000	6FX5002-5CS13-1BA0*	10.0	(4G10)	16.5
198129.1000	6FX5002-5CS21-1BA0*	10.0	(4G1.5)	8.4
198132.1000	6FX5002-5CS31-1BA0*	10.0	(4G2.5)	10.6
198133.1000	6FX5002-5CS41-1BA0*	10.0	(4G4)	11.5
198136.1000	6FX5002-5CS51-1BA0*	10.0	(4G6)	13.2
198139.1000	6FX5002-5CS61-1BA0*	10.0	(4G10)	16.5
SINAMICS, open end/Booksize				
198123.1000	6FX5002-5CS02-1BA0*	10.0	(4G1.5)	8.4
198126.1000	6FX5002-5CS12-1BA0*	10.0	(4G2.5)	10.6
198321.1000	6FX5002-5CS42-1BA0*	10.0	(4G4)	16.5
198322.1000	6FX5002-5CS52-1BA0*	10.0	(4G6)	14.0
198323.1000	6FX5002-5CS62-1BA0*	10.0	(4G10)	16.5

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Servo cable assemblies without brake cores for fixed installation

Acc. to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing
- More cost-effective alternative to the cable chain version 6FX8002

Properties

- PVC Flame-retardant, self-extinguishing
- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special TPM/PP-conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conductors/cross-section	Outer Ø ca. mm
SIMODRIVE, full thread/open end				
198042.1000	6FX5002-5CA01-1BA0*	10.0	(4G1.5)	8.4
198046.1000	6FX5002-5CA11-1BA0*	10.0	(4G2.5)	10.6
198048.1000	6FX5002-5CA13-1BA0*	10.0	(4G10)	16.5
198051.1000	6FX5002-5CA21-1BA0*	10.0	(4G1.5)	8.4
198052.1000	6FX5002-5CA23-1BA0*	10.0	(4G16)	21.2
198054.1000	6FX5002-5CA31-1BA0*	10.0	(4G2.5)	10.6
198059.1000	6FX5002-5CA41-1BA0*	10.0	(4G4)	11.5
198063.1000	6FX5002-5CA51-1BA0*	10.0	(4G6)	13.2
198066.1000	6FX5002-5CA61-1BA0*	10.0	(4G10)	16.5
SINAMICS, full thread/open end				
198068.1000	6FX5002-5CG01-1BA0*	10.0	(4G1.5)	8.4
198071.1000	6FX5002-5CG11-1BA0*	10.0	(4G2.5)	10.6
198292.1000	6FX5002-5CG13-1BA0*	10.0	(4G10)	16.5
198073.1000	6FX5002-5CG21-1BA0*	10.0	(4G1.5)	8.4
198293.1000	6FX5002-5CG23-1BA0*	10.0	(4G16)	21.2
198078.1000	6FX5002-5CG31-1BA0*	10.0	(4G2.5)	10.6
198083.1000	6FX5002-5CG41-1BA0*	10.0	(4G4)	11.5
198088.1000	6FX5002-5CG51-1BA0*	10.0	(4G6)	14.0
198093.1000	6FX5002-5CG61-1BA0*	10.0	(4G10)	16.5
198273.1000	6FX5002-5CS14-1BA0*	10.0	(4G10)	16.5
198294.1000	6FX5002-5CS23-1BA0*	10.0	(4G16)	21.2
198299.1000	6FX5002-5CS54-1BA0*	10.0	(4G6)	14.0
198309.1000	6FX5002-5CS64-1BA0*	10.0	(4G10)	16.5
198353.1000	6FX5002-5CG32-1BA0*	10.0	(4G2.5)	10.6

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Servo cable assemblies with brake cores for fixed installation

Acc. to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing
- More cost-effective alternative to the cable chain version 6FX8002

Properties

- PVC Flame-retardant, self-extinguishing
- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special TPM/PP-conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Signal conductor: white/black (1 pair)
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of con- ductors/cross- section	Outer Ø ca. mm
SINAMICS, speed-connect/Booksize				
198340.1000	6FX5002-5DN01-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198341.1000	6FX5002-5DN11-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198342.1000	6FX5002-5DN21-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198343.1000	6FX5002-5DN31-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198344.1000	6FX5002-5DN41-1BA0*	10.0	(4G4+(2×1.5))	14.0
198345.1000	6FX5002-5DN51-1BA0*	10.0	(4G6+(2×1.5))	15.8
198346.1000	6FX5002-5DN61-1BA0*	10.0	(4G10+(2×1.5))	18.5
SINAMICS, full thread/Booksize				
198320.1000	6FX5002-5DS01-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198325.1000	6FX5002-5DS11-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198176.1000	6FX5002-5DS13-1BA0*	10.0	(4G10+(2×1.5))	18.5
198177.1000	6FX5002-5DS21-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198245.1000	6FX5002-5DS31-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198178.1000	6FX5002-5DS41-1BA0*	10.0	(4G6+(2×1.5))	14.0
198179.1000	6FX5002-5DS51-1BA0*	10.0	(4G6+(2×1.5))	15.8
198182.1000	6FX5002-5DS61-1BA0*	10.0	(4G10+(2×1.5))	18.5

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Servo cable assemblies with brake cores for fixed installation

Acc. to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing
- More cost-effective alternative to the cable chain version 6FX8002

Properties

- PVC Flame-retardant, self-extinguishing
- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-5 °C to +70 °C
fixed	-25 °C to +70 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special TPM/PP-conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Control pair color-coded (bk, wh)
- Control pair with braided shield and foil tape
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conductors/cross-section	Outer Ø ca. mm
SIMODRIVE, full thread/open end				
198461.1000	6FX5002-5DA01-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198481.1000	6FX5002-5DA11-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198146.1000	6FX5002-5DA13-1BA0*	10.0	(4G10+(2×1.5))	18.5
198501.1000	6FX5002-5DA21-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198871.1000	6FX5002-5DA23-1BA0*	10.0	(4G16+(2×1.5))	23.6
198531.1000	6FX5002-5DA31-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198881.1000	6FX5002-5DA33-1BA0*	10.0	(4G25+(2×1.5))	28.5
198561.1000	6FX5002-5DA41-1BA0*	10.0	(4G4+(2×1.5))	14.0
198571.1000	6FX5002-5DA51-1BA0*	10.0	(4G6+(2×1.5))	15.8
198581.1000	6FX5002-5DA61-1BA0*	10.0	(4G10+(2×1.5))	18.5
SINAMICS, full thread/open end				
198076.1000	6FX5002-5DG01-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198086.1000	6FX5002-5DG11-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198287.1000	6FX5002-5DG13-1BA0*	10.0	(4G10+(2×1.5))	18.5
198081.1000	6FX5002-5DG21-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198288.1000	6FX5002-5DG23-1BA0*	10.0	(4G16+(2×1.5))	23.6
198091.1000	6FX5002-5DG31-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198289.1000	6FX5002-5DG33-1BA0*	10.0	(4G25+(2×1.5))	28.6
198096.1000	6FX5002-5DG41-1BA0*	10.0	(4G4+(2×1.5))	14.0
198101.1000	6FX5002-5DG51-1BA0*	10.0	(4G6+(2×1.5))	15.8
198116.1000	6FX5002-5DG61-1BA0*	10.0	(4G10+(2×1.5))	18.5
198296.1000	6FX5002-5DS14-1BA0*	10.0	(4G10+(2×1.5))	18.5
198264.1000	6FX5002-5DS23-1BA0*	10.0	(4G16+(2×1.5))	23.6
198297.1000	6FX5002-5DS54-1BA0*	10.0	(4G6+(2×1.5))	15.8
198298.1000	6FX5002-5DS64-1BA0*	10.0	(4G10+(2×1.5))	18.5

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Servo cable assemblies without brake cores for fixed installation

Acc. to SIEMENS-6FX5002 standard Extension



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing
- More cost-effective alternative to the cable chain version 6FX8002

Properties

- PVC Flame-retardant, self-extinguishing
- Silicone free
- RoHS-compliant

Notes:

- The extension can also be used for **SPEED-CONNECT** plug connection, for this the O-ring must be removed on the outer thread. This does not affect the tightness of the plug connection.

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special TPM/PP-conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
SINAMICS/SIMODRIVE, full thread				
198044.1000	6FX5002-5CA05-1BA0*	10.0	(4G1.5)	8.4
198049.1000	6FX5002-5CA15-1BA0*	10.0	(4G2.5)	10.6
198053.1000	6FX5002-5CA28-1BA0*	10.0	(4G1.5)	8.4
198058.1000	6FX5002-5CA38-1BA0*	10.0	(4G2.5)	10.6
198062.1000	6FX5002-5CA48-1BA0*	10.0	(4G4)	11.5
198064.1000	6FX5002-5CA58-1BA0*	10.0	(4G6)	13.2
198067.1000	6FX5002-5CA68-1BA0*	10.0	(4G10)	16.5
198143.1000	6FX5002-5CX18-1BA0*	10.0	(4G10)	16.5
198144.1000	6FX5002-5CX28-1BA0*	10.0	(4G16)	21.2

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Servo cable assemblies with brake cores for fixed installation

Acc. to SIEMENS-6FX5002 standard Extension



Application

- Extension, for Siemens servo drives
- For flexible application without continuous flexing
- Cost-effective alternative to the c-tracks suitable 6FX8002 version

Properties

- PVC Flame-retardant, self-extinguishing
- Silicone free
- RoHS-compliant

Notes:

- The extension can also be used for **SPEED-CONNECT** plug connection, for this the O-ring must be removed on the outer thread. This does not affect the tightness of the plug connection.

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special TPM/PP-conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Control pair color-coded (bk, wh)
- Control pair with braided shield and foil tape
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of con- ductors/cross- section	Outer Ø ca. mm
SINAMICS/SIMODRIVE, full thread				
198731.1000	6FX5002-5DA05-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198991.1000	6FX5002-5DA15-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198791.1000	6FX5002-5DA28-1BA0*	10.0	(4G1.5+(2×1.5))	11.6
198801.1000	6FX5002-5DA38-1BA0*	10.0	(4G2.5+(2×1.5))	13.0
198006.1000	6FX5002-5DA48-1BA0*	10.0	(4G4+(2×1.5))	14.0
198011.1000	6FX5002-5DA58-1BA0*	10.0	(4G6+(2×1.5))	15.8
198026.1000	6FX5002-5DA68-1BA0*	10.0	(4G10+(2×1.5))	18.5
198183.1000	6FX5002-5DX18-1BA0*	10.0	(4G10+(2×1.5))	18.5
198184.1000	6FX5002-5DX28-1BA0*	10.0	(4G16+(2×1.5))	23.6
198186.1000	6FX5002-5DX38-1BA0*	10.0	(4G25+(2×1.5))	28.5

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Signal cables for fixed installation

According to SIEMENS-6FX5002 standard Base cable DRIVE-CLIQ®



Application

- Resolver cable
- For flexible application without continuous flexing
- Cost-effective alternative to the c-tracks suitable 6FX8002 version

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	30 V 80 °C
Test voltage	500 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 15
fixed	D × 7.5
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Part-No.	SIEMENS designation	Length m	Outer Ø ca. mm
SINAMICS			
198036.1000	6FX5002-2DC00-1BA0*	10.0	7.2
198037.1000	6FX5002-2DC10-1BA0*	10.0	7.2
198038.1000	6FX5002-2DC20-1BA0*	10.0	7.2

Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special thermoplastic conductor insulation
- Color coded conductor
- Ground conductor green/yellow according to DIN EN 50334
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special PVC TM2 according to HD21.1, matte, adhesion-free surface
- Jacket color green RAL 6018

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LÜTZE SUPERFLEX® and LÜTZE SUPERFLEX® PLUS



LÜTZE SUPERFLEX® sets industrial standards: durable, reliable and flexible

LÜTZE has a broad range of highly flexible cables specially developed for permanently moving applications in drag chains.

LÜTZE SUPERFLEX® and LÜTZE SUPERFLEX® PLUS cables are available for control, motor and electronic applications. LÜTZE SUPERFLEX® cables are compatible with metal and plastic drag chains of all reputed manufacturers.

LÜTZE SUPERFLEX® N is suitable for medium to high mechanical loads in drag chains with short to medium travel paths. LÜTZE SUPERFLEX® N is available with PVC or 'High Glide' insulation (TPE) and a special PVC jacket.

LÜTZE SUPERFLEX® Plus PUR is suitable for very high mechanical loads in drag chains and very long travel paths. LÜTZE SUPERFLEX® Plus PUR is available in high-quality materials such as 'High Glide' insulation (TPE) and a PUR jacket. This material configuration allows applications with state-of-the-art and very fast machines.

All highly flexible cables for the drag chain must satisfy special requirements in terms of handling and installation of the cables in the drag chain. To ensure a long service life of the cables, it is important to select the correct cable for the application and to observe the handling and installation regulations.



Bending cycles of highly flexible cables

LÜTZE SUPERFLEX® - durable, reliable, flexible

The high mechanical requirements in a drag chain require the use of special cables that have been specially designed for permanently moving applications. The service life of the cables in the drag chain is also highly dependent on the mechanical parameters of the application, and the care taken during installation.

Cables	Travel path in m	Bending radius = Factor x cable-Ø (mm)	Speed m/s	Acceleration m/s ²	Bending cycles mill.
LÜTZE SUPERFLEX® PLUS					
Unshielded cable with	≤ 5	≥ 10 Ø	≤ 3	≤ 5	≥ 20
Special TPE or HGI	≤ 20	≥ 7,5 Ø	≤ 5	≤ 10	≥ 10
Insulation, PUR or TPE	≤ 100	≥ 7.5 Ø	≤ 5	≤ 10	≥ 2
Jacket					
LÜTZE SUPERFLEX® PLUS (C)					
Shielded cable with	≤ 5	≥ 12 Ø	≤ 3	≤ 5	≥ 20
Special TPE or HGI	≤ 20	≥ 10 Ø	≤ 5	≤ 10	≥ 10
Insulation, PUR or TPE	≤ 100	≥ 10 Ø	≤ 5	≤ 10	≥ 2
Jacket					
LÜTZE SUPERFLEX®					
Unshielded cable	≤ 5	≥ 12 Ø	≤ 3	≤ 5	≥ 10
	≤ 15	≥ 10 Ø	≤ 5	≤ 10	≥ 5
LÜTZE SUPERFLEX® (C)					
Shielded cable	≤ 5	≥ 15 Ø	≤ 3	≤ 5	≥ 10
	≤ 15	≥ 12 Ø	≤ 5	≤ 10	≥ 5

The values in this table shows the application parameters and satisfied cycles in independent tests. The cycle performance can only be compared, if all values are considered together. An assessment after 'millions of operating cycles' is meaningless, if the travel path, speed and bending radius are unknown.

LÜTZE SUPERFLEX® PLUS M (C) PUR UL Servo 0,6 / 1 kV in compliance with SIEMENS* standard based on SIEMENS MOTION-CONNECT 800PLUS

	Travel path in m	Bending radius = Factor x cable-Ø (mm)	Speed m/s	Acceleration m/s ²	Bending cycles mill.
LÜTZE SUPERFLEX® PLUS M (C)					
PUR UL Servo 0.6 / 1 kV					
	≤ 3	≥ 10 Ø	≤ 5	≤ 50	≥ 10
	≤ 5	≥ 10 Ø	≤ 5	≤ 30	≥ 10
	≤ 10	≥ 10 Ø	≤ 5	≤ 15	≥ 10
	≤ 15	≥ 10 Ø	≤ 5	≤ 10	≥ 10
	≤ 50	≥ 10 Ø	≤ 5	≤ 5	≥ 10

Servo cable assemblies without brake cores for C-tracks

Acc. to SIEMENS-6FX8002 standard Base cable



Application

- Base cable DRIVE-CLIQ®, for SIEMENS SERVO drives
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation, UL qualified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003



Part-No.	SIEMENS designation	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
SINAMICS, speed-connect/Booksize				
198326.1000	6FX8002-5CN01-1BA0*	10.0	(4G1.5)	8.6
198327.1000	6FX8002-5CN11-1BA0*	10.0	(4G2.5)	10.8
198328.1000	6FX8002-5CN21-1BA0*	10.0	(4G1.5)	8.6
198329.1000	6FX8002-5CN31-1BA0*	10.0	(4G2.5)	10.8
198330.1000	6FX8002-5CN41-1BA0*	10.0	(4G4)	12.2
198331.1000	6FX8002-5CN51-1BA0*	10.0	(4G6)	14.0
198332.1000	6FX8002-5CN61-1BA0*	10.0	(4G10)	17.6
SINAMICS, full thread/Booksize				
198300.1000	6FX8002-5CS01-1BA0*	10.0	(4G1.5)	8.6
198302.1000	6FX8002-5CS11-1BA0*	10.0	(4G2.5)	10.8
198214.1000	6FX8002-5CS13-1BA0*	10.0	(4G10)	17.6
198304.1000	6FX8002-5CS21-1BA0*	10.0	(4G1.5)	8.6
198305.1000	6FX8002-5CS31-1BA0*	10.0	(4G2.5)	10.8
198317.1000	6FX8002-5CS41-1BA0*	10.0	(4G4)	12.2
198318.1000	6FX8002-5CS51-1BA0*	10.0	(4G6)	14.0
198319.1000	6FX8002-5CS61-1BA0*	10.0	(4G10)	17.6
SINAMICS, open end/Booksize				
198301.1000	6FX8002-5CS02-1BA0*	10.0	(4G1.5)	8.6
198303.1000	6FX8002-5CS12-1BA0*	10.0	(4G2.5)	10.6
198306.1000	6FX8002-5CS42-1BA0*	10.0	(4G4)	12.2
198307.1000	6FX8002-5CS52-1BA0*	10.0	(4G6)	14.0
198308.1000	6FX8002-5CS62-1BA0*	10.0	(4G10)	17.6

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Servo cable assemblies without brake cores for C-tracks

Acc. to SIEMENS-6FX8002 standard Base cable



Application

- Base cable, for Siemens servo drives
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Part-No.	SIEMENS designation	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
SIMODRIVE, full thread/open end				
198360.1000	6FX8002-5CA01-1BA0*	10.0	(4G1.5)	8.6
198380.1000	6FX8002-5CA11-1BA0*	10.0	(4G2.5)	10.8
198845.1000	6FX8002-5CA13-1BA0*	10.0	(4G10)	17.6
198400.1000	6FX8002-5CA21-1BA0*	10.0	(4G1.5)	8.6
198810.1000	6FX8002-5CA23-1BA0*	10.0	(4G16)	21.2
198410.1000	6FX8002-5CA31-1BA0*	10.0	(4G2.5)	10.8
198430.1000	6FX8002-5CA41-1BA0*	10.0	(4G4)	12.2
198440.1000	6FX8002-5CA51-1BA0*	10.0	(4G6)	14.0
198450.1000	6FX8002-5CA61-1BA0*	10.0	(4G10)	17.6
SINAMICS, full thread/open end				
198950.1000	6FX8002-5CG01-1BA0*	10.0	(4G1.5)	8.6
198040.1000	6FX8002-5CG11-1BA0*	10.0	(4G2.5)	10.8
198283.1000	6FX8002-5CG13-1BA0*	10.0	(4G10)	17.6
198035.1000	6FX8002-5CG21-1BA0*	10.0	(4G1.5)	8.6
198803.1000	6FX8002-5CG23-1BA0*	10.0	(4G16)	21.2
198045.1000	6FX8002-5CG31-1BA0*	10.0	(4G2.5)	10.8
198050.1000	6FX8002-5CG41-1BA0*	10.0	(4G4)	12.2
198055.1000	6FX8002-5CG51-1BA0*	10.0	(4G6)	14.0
198060.1000	6FX8002-5CG61-1BA0*	10.0	(4G10)	17.6
198284.1000	6FX8002-5CS14-1BA0*	10.0	(4G10)	17.6
198285.1000	6FX8002-5CS23-1BA0*	10.0	(4G16)	21.2
198980.1000	6FX8002-5CS54-1BA0*	10.0	(4G6)	14.0
198286.1000	6FX8002-5CS64-1BA0*	10.0	(4G10)	17.6
198198.1000	6FX8002-5CG32-1BA0*	10.0	(4G2.5)	10.8

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation, UL qualified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003

* Siemens article designations are registered trademarks of Siemens AG, and are for reference purposes only

Servo cable assemblies with brake cores for C-tracks

Acc. to SIEMENS-6FX8002 standard Base cable



Application

- Base cable for Siemens servo drives
- Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1, EN 60684-2
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Control pair color-coded (bk, wh)
- Control pair with braided shield and foil tape
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conductors/cross-section	Outer Ø ca. mm
SINAMICS, speed-connect/Booksize				
198333.1000	6FX8002-5DN01-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198334.1000	6FX8002-5DN11-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198335.1000	6FX8002-5DN21-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198336.1000	6FX8002-5DN31-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198337.1000	6FX8002-5DN41-1BA0*	10.0	(4G4+(2×1.5))	14.5
198338.1000	6FX8002-5DN51-1BA0*	10.0	(4G6+(2×1.5))	16.1
198339.1000	6FX8002-5DN61-1BA0*	10.0	(4G10+(2×1.5))	19.5
SINAMICS, full thread/Booksize				
198310.1000	6FX8002-5DS01-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198311.1000	6FX8002-5DS11-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198312.1000	6FX8002-5DS21-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198313.1000	6FX8002-5DS31-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198314.1000	6FX8002-5DS41-1BA0*	10.0	(4G4+(2×1.5))	14.5
198315.1000	6FX8002-5DS51-1BA0*	10.0	(4G6+(2×1.5))	16.1
198316.1000	6FX8002-5DS61-1BA0*	10.0	(4G10+(2×1.5))	19.5
198247.1000	6FX8002-5DS13-1BA0*	10.0	(4G10+(2×1.5))	19.5

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Servo cable assemblies with brake cores for C-tracks

Acc. to SIEMENS-6FX8002 standard Base cable



Application

- Base cable, for Siemens servo drives
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1, EN 60684-2
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Control pair color-coded (bk, wh)
- Control pair with braided shield and foil tape
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conductors/cross-section	Outer Ø ca. mm
SIMODRIVE, full thread/open end				
198460.1000	6FX8002-5DA01-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198480.1000	6FX8002-5DA11-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198840.1000	6FX8002-5DA13-1BA0*	10.0	(4G10+(2×1.5))	19.5
198500.1000	6FX8002-5DA21-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198870.1000	6FX8002-5DA23-1BA0*	10.0	(4G16+(2×1.5))	23.6
198530.1000	6FX8002-5DA31-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198880.1000	6FX8002-5DA33-1BA0*	10.0	(4G25+(2×1.5))	28.5
198560.1000	6FX8002-5DA41-1BA0*	10.0	(4G4+(2×1.5))	14.5
198349.1000	6FX8002-5DA43-1BA0*	10.0	(4G35+(2×1.5))	32.0
198570.1000	6FX8002-5DA51-1BA0*	10.0	(4G6+(2×1.5))	16.1
198580.1000	6FX8002-5DA61-1BA0*	10.0	(4G10+(2×1.5))	19.5
SINAMICS, full thread/open end				
198075.1000	6FX8002-5DG01-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198085.1000	6FX8002-5DG11-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198275.1000	6FX8002-5DG13-1BA0*	10.0	(4G10+(2×1.5))	19.5
198080.1000	6FX8002-5DG21-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198276.1000	6FX8002-5DG23-1BA0*	10.0	(4G16+(2×1.5))	23.6
198090.1000	6FX8002-5DG31-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198277.1000	6FX8002-5DG33-1BA0*	10.0	(4G25+(2×1.5))	28.5
198095.1000	6FX8002-5DG41-1BA0*	10.0	(4G4+(2×1.5))	14.5
198278.1000	6FX8002-5DG43-1BA0*	10.0	(4G35+(2×1.5))	32.0
198100.1000	6FX8002-5DG51-1BA0*	10.0	(4G6+(2×1.5))	16.1
198279.1000	6FX8002-5DG53-1BA0*	10.0	(4G50+(2×1.5))	37.3
198115.1000	6FX8002-5DG61-1BA0*	10.0	(4G10+(2×1.5))	19.5
198263.1000	6FX8002-5DS14-1BA0*	10.0	(4G10+(2×1.5))	19.5
198267.1000	6FX8002-5DS23-1BA0*	10.0	(4G16+(2×1.5))	23.6
198259.1000	6FX8002-5DS54-1BA0*	10.0	(4G6+(2×1.5))	16.1
198262.1000	6FX8002-5DS64-1BA0*	10.0	(4G10+(2×1.5))	19.5

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Servo cable assemblies without brake cores for C-tracks

Acc. to SIEMENS-6FX8002 standard Extension



Application

- Extension, for Siemens servo drives
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Notes:

- The extension can also be used for **SPEED-CONNECT** plug connection, for this the O-ring must be removed on the outer thread. This does not affect the tightness of the plug connection.

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1, EN 60684-2
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Conductors cabled in layers without mechanical stress, optimised lay pitch
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conductors/ cross-section	Outer Ø ca. mm
SINAMICS/SIMODRIVE, full thread				
198820.1000	6FX8002-5CA05-1BA0*	10.0	(4G1.5)	8.6
198985.1000	6FX8002-5CA15-1BA0*	10.0	(4G2.5)	10.8
198765.1000	6FX8002-5CA28-1BA0*	10.0	(4G1.5)	8.6
198995.1000	6FX8002-5CA38-1BA0*	10.0	(4G2.5)	10.8
198015.1000	6FX8002-5CA48-1BA0*	10.0	(4G4)	12.2
198020.1000	6FX8002-5CA58-1BA0*	10.0	(4G6)	14.0
198030.1000	6FX8002-5CA68-1BA0*	10.0	(4G10)	17.6
198216.1000	6FX8002-5CX18-1BA0*	10.0	(4G10)	17.6
198217.1000	6FX8002-5CX28-1BA0*	10.0	(4G16)	21.2
SINAMICS, speed-connect				
198204.1000	6FX8002-5CN05-1BA0*		(4G1.5)	8.6

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Servo cable assemblies with brake cores for C-tracks

Acc. to SIEMENS-6FX8002 standard Extension



Application

- Extension, for Siemens servo drives
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

Properties

- Silicone free
- RoHS-compliant
- The extension can also be used for **SPEED-CONNECT** plug connection, for this the O-ring must be removed on the outer thread. This does not affect the tightness of the plug connection.

Technical data

UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE/HGI conductor insulation, UL certified
- Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
- Control pair color-coded (bk, wh)
- Control pair with braided shield and foil tape
- Conductors cabled in layers without mechanical stress, optimised lay pitch
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part-No.	SIEMENS designation	Length m	Number of conduc- tors/cross-section	Outer Ø ca. mm
SINAMICS/SIMODRIVE, full thread				
198730.1000	6FX8002-5DA05-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198990.1000	6FX8002-5DA15-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198790.1000	6FX8002-5DA28-1BA0*	10.0	(4G1.5+(2×1.5))	11.4
198800.1000	6FX8002-5DA38-1BA0*	10.0	(4G2.5+(2×1.5))	12.9
198005.1000	6FX8002-5DA48-1BA0*	10.0	(4G4+(2×1.5))	14.5
198010.1000	6FX8002-5DA58-1BA0*	10.0	(4G6+(2×1.5))	16.1
198025.1000	6FX8002-5DA68-1BA0*	10.0	(4G10+(2×1.5))	19.5
198248.1000	6FX8002-5DX18-1BA0*	10.0	(4G10+(2×1.5))	19.5
198249.1000	6FX8002-5DX28-1BA0*	10.0	(4G16+(2×1.5))	23.6
198252.1000	6FX8002-5DX38-1BA0*	10.0	(4G25+(2×1.5))	28.5
198187.1000	6FX8002-5DX48-1BA0*	10.0	(4G35+(2×1.5))	32.0
198254.1000	6FX8002-5DX58-1BA0*	10.0	(4G50+(2×1.5))	37.3
SINAMICS, speed-connect				
198735.1000	6FX8002-5DN05-1BA0*		(4G1.5+(2×1.5))	11.4

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Signal cables for C-tracks

Acc. to SIEMENS-6FX8002 standard Base cable DRIVE-CLIQ®



LÜTZE SUPERFLEX®
connected



Application

- Resolver cable
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	30 V 80 °C
Test voltage	500 V
Insulation resistance	min. 2000 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 12
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265/2, IEC 60332-1, UL 1581 section 1080 VW-1 CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Part-No.	SIEMENS designation	Length m	Outer Ø ca. mm
SINAMICS			
198890.1000	6FX8002-2DC00-1BA0*	10.0	6.8
198900.1000	6FX8002-2DC10-1BA0*	10.0	6.8
198910.1000	6FX8002-2DC20-1BA0*	10.0	6.8

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE conductor insulation, UL qualified
- Conductors color-coded for specific system
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Full polyurethane jacket, matte adhesion-free surface
- Jacket color green RAL 6018

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Signal cables for C-tracks

Acc. to SIEMENS-6FX8002 standard base cable and extension



Application

- Resolver cable
- Due to full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions, aggressive coolants and lubricants

Properties

- Silicone free
- RoHS-compliant

Technical data

UL approval	cURus
Nominal voltage	30 V 80 °C
Test voltage	500 V
Insulation resistance	min. 2000 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	D × 12
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 T 265-2, DIN EN 50265/2, IEC 60332-1, UL 1581 section 1080 VW-1 CSA FT 1
Halogen free	according to DIN EN 50267-2-1
Product photo	The product photos are not to scale and do not represent detailed images of the respective products.

Construction

- Bare copper wire, finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE conductor insulation, UL qualified
- Conductors color-coded for specific system
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Full polyurethane jacket, matte adhesion-free surface
- Jacket color green RAL 6018



Part-No.	SIEMENS designation	Length m	Outer Ø ca. mm
SIMODRIVE base cable			
198110.1000	6FX8002-2AD00-1BA0*	10.0	8.6
198830.1000	6FX8002-2AH00-1BA0*	10.0	9.0
198120.1000	6FX8002-2CA11-1BA0*	10.0	9.0
198130.1000	6FX8002-2CA15-1BA0*	10.0	8.6
198628.1000	6FX8002-2CA31-1BA0*	10.0	9.5
198850.1000	6FX8002-2CA51-1BA0*	10.0	8.6
198150.1000	6FX8002-2CA61-1BA0*	10.0	8.6
198200.1000	6FX8002-2CB51-1BA0*	10.0	9.0
198210.1000	6FX8002-2CC11-1BA0*	10.0	9.0
198220.1000	6FX8002-2CD01-1BA0*	10.0	9.0
198240.1000	6FX8002-2CF02-1BA0*	10.0	8.6
198170.1000	6FX8002-2CG00-1BA0*	10.0	9.0
198250.1000	6FX8002-2CH00-1BA0*	10.0	8.6
198280.1000	6FX8002-2EQ10-1BA0*	10.0	9.5
198140.1000	6FX8002-2CA21-1BA0*	10.0	8.6
198260.1000	6FX8002-2CE07-1BA0*	10.0	9.0
SIMODRIVE extension			
198160.1000	6FX8002-2CA34-1BA0*	10.0	9.5
198740.1000	6FX8002-2CF04-1BA0*	10.0	8.6
198700.1000	6FX8002-2EQ14-1BA0*	10.0	9.5
198105.1000	6FX8002-2AD04-1BA0*	10.0	8.6
198295.1000	6FX8002-2CB54-1BA0*	10.0	9.0

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PVC servo cables · shielded

LÜTZE SILFLEX® M (C) PVC SERVO 0.6/1 kV Motor/energy supply cable for Siemens and other systems



Application

- For Siemens 6FX5008* standard system (and similar)
- Connection cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Flexible construction for easy installation
- Suitable for static laying and slight movement of machine components (not C-track)
- Low capacitance for high dielectric strength for long cable guide from inverter to motor
- In dry and damp rooms
- Especially for industrial environments in mechanical and system engineering

Properties

- Low capacitance for high dielectric strength
- High active and passive interference resistance (EMC)
- PVC, flame-retardant and self-extinguishing
- Orange RAL 2003 per DESINA
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 2570
Nominal voltage	1000 V 80 °C
Voltage	
U ₀ /U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 10
fixed	D × 6
Burning behavior	Flame-retardant according to VDE 0482 part 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1

Construction

- Bare copper wire, super finely stranded according to DIN VDE 0295 Kl. 5 or IEC 60228 cl. 5
- Conductor insulation Special TPM/PP
- Conductor marking Power conductors black with number print U/ L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
- G = with green/yellow ground conductor, × = without ground conductor
- Signal strands: white/black (1 pair)
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special-PVC, matte, adhesion-free surface
- Jacket color orange RAL 2003

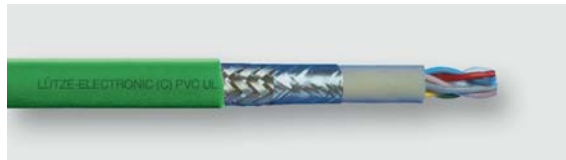
Part-No.	Number of conductors/cross-section	SIE-MENS designation	Outer Ø ca. mm	Weight kg/100 m	Cu-Index kg/100 m
Construction without signal strands					
116401	(4G1.5)	1BB11*	8.4	13.1	8.8
116402	(4G2.5)	1BB21*	10.6	21.9	13.2
116403	(4G4)	1BB31*	11.5	31.2	19.5
116404	(4G6)	1BB41*	13.2	38.0	28.0
116405	(4G10)	1BB51*	16.5	62.0	44.5
116406	(4G16)	1BB61*	21.2	106.0	71.5
116407	(4G25)	1BB25*	25.0	165.0	111.0
116408	(4G35)	1BB35*	31.8	231.0	154.0
Construction with 1 signal pair					
116415	(4G1.5+(2×1.5))	1BA11*	11.6	24.8	15.5
116416	(4G2.5+(2×1.5))	1BA21*	13.0	31.0	19.5
116417	(4G4+(2×1.5))	1BA31*	14.0	44.5	27.5
116418	(4G6+(2×1.5))	1BA41*	15.8	55.4	35.3
116419	(4G10+(2×1.5))	1BA51*	18.5	80.6	53.7
116420	(4G16+(2×1.5))	1BA61*	23.6	108.5	75.9
116421	(4G25+(2×1.5))	1BA25*	28.5	168.5	115.4

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC
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PVC feedback cables · shielded

LÜTZE SILFLEX® (C) PVC FEEDBACK

Feedback cable for Siemens DRIVE-CLIQ 6FX5008 standard system



Application

- Digital feedback cable compatible with Siemens DRIVE-CLIQ standard system
- In dry and damp rooms
- For flexible applications without continuous flexing

Properties

- High active and passive interference resistance (EMC)
- PVC Flame-retardant, self-extinguishing
- Resistant to most oils, greases, acids and bases
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 2502
Nominal voltage	30 V 80 °C
Test voltage	500 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-5 °C to +80 °C
fixed	-25 °C to +80 °C
Minimum bending radius	
moving	D × 15
fixed	D × 7.5
Burning behavior	Flame-retardant according to VDE 0482 part 265-2, DIN EN 50265-2, IEC 60332-1,

Construction

- Bare copper wire, super finely stranded according to DIN VDE 0295 Kl. 5 or IEC 60228 cl. 5
- Conductor insulation Special thermoplast
- Conductors color-coded
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special PVC TM2 according to VDE 0281-1, matte, adhesion-free surface
- Jacket color green RAL 6018

Part-No.	Number of strands/cross-section/ strand colors	Outer Ø ca. mm	Weight kg/100 m	Cu-Index kg/100 m
For Siemens system DRIVE-CLIQ 2DC00				
104313	(2×2×AWG26) green/yellow/blue/pink	6.4	7.3	3.4
104341	(2×2×AWG26+2×AWG22) AWG26: green/yellow/blue/pink AWG22: red/black	6.8	8.5	4.2

PUR servo cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Siemens and other systems For highest requirements



Application

- Connection cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Due to optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resistance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weatherproof, ozone and UV resistant (normal lighting conditions)
- Good ruggedness and salt water resistance
- Excellent coolant and lubricant resistance
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 21223
Nominal voltage	1000 V 80 °C
Voltage U_0/U	0.6/1 kV
Test voltage	4000 V
Insulation resistance	min. 500 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C

Minimum bending radius

moving	D × 10
fixed	D × 6

Burning behavior

Flame-retardant according to
VDE 0482 part 265-2
DIN EN 50265-2,
IEC 60332-1,
UL 1581 section 1080 VW-1,
CSA FT 1

Halogen free

according to EN 50267-2-1

Construction

- Bare copper wire, super finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Conductor insulation Special TPE, high glide
- Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L-
- Ground conductor green/yellow according to DIN EN 50334
G = with green/yellow ground conductor, × = without ground conductor
- Control pair color-coded (bk, wh)
- Control pair with braided shield and foil tape
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Jacket special-PUR, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part-No.	Number of conductors/cross-section	SIE-MENS designation	Outer Ø ca. mm	Weight kg/100 m	Cu-Index kg/100 m
Construction without signal strands					
111879	(4G1.0)	-----*	7.4	10.8	6.5
111460	(4G1.5)	1BB11*	8.6	11.7	8.3
111461	(4G2.5)	1BB21*	10.8	17.3	13.0
111462	(4G4)	1BB31*	12.2	24.5	19.3
111463	(4G6)	1BB41*	14.0	36.5	27.5
111464	(4G10)	1BB51*	17.6	54.9	45.0
111465	(4G16)	1BB61*	21.2	84.9	72.0
111466	(4G25)	1BB25*	25.0	129.9	108.0
111467	(4G35)	1BB35*	28.8	169.2	152.4
111468	(4G50)	1BB50*	33.9	244.2	216.8
Assembly with 1 signal pair					
111420	(4G1.5+(2×1.5))	1BA11*	11.4	21.0	14.9
111421	(4G2.5+(2×1.5))	1BA21*	12.9	23.5	19.3
111422	(4G4+(2×1.5))	1BA31*	14.5	32.0	25.5
111423	(4G6+(2×1.5))	1BA41*	16.1	43.0	33.9
111424	(4G10+(2×1.5))	1BA51*	19.5	68.0	52.6
111425	(4G16+(2×1.5))	1BA61*	23.6	95.6	77.3
111426	(4G25+(2×1.5))	1BA25*	28.5	136.5	113.0
111427	(4G35+(2×1.5))	1BA35*	31.0	274.6	159.0
111428	(4G50+(2×1.5))	1BA50*	34.5	373.7	224.0

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

*Siemens article designations are registered trademarks of Siemens AG see current catalogue

PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK

Encoder cables for Siemens and other systems

For highest requirements in drive technology



Application

- Incremental encoder cable, connection cable for tacho sensor, brake sensor, speed sensor
- Due to Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weatherproof, ozone and UV resistant (normal lighting conditions)
- Good ruggedness and salt water resistance
- Excellent coolant and lubricant resistance
- Resistant to most oils, greases, alcohol-free benzines and kerosene
- Silicone free
- RoHS compliant

Technical data

UL approval	AWM 20236
Nominal voltage	30 V 80 °C
Test voltage	500 V
Insulation resistance	min. 200 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C

Minimum bending radius

moving	D × 12
fixed	D × 6

Burning behavior

	Flame-retardant according to VDE 0482 part 265-2, DIN EN 50265-2, IEC 60332-1, UL 1581 section 1080 VW-1, CSA FT 1
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Halogen free

	according to EN 50267-2-1
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Construction

- Bare copper wire, super finely stranded according to DIN VDE 0295 class 6, IEC 60228 class 6
- Conductor insulation Special-TPE
- Conductors color-coded for specific system
- Conductors cabled in layers without mechanical stress, layer pitch optimised
- Fleece wrap over cable core
- Braid from tinned copper wire, optical coverage ≥ 85 %
- Full polyurethane jacket, matte, adhesion-free surface
- Jacket color green RAL 6018

Part-No.	Number of strands/cross-section/ strand colors	SIEMENS designation	Outer Ø ca. mm	Weight kg/100 m	Cu-Index kg/100 m
For Siemens 6FX8000* standard system (and similar)					
111412	(8×2×0.18) black/brown, red/orange, yellow/ green, blue/violet, grey/white, whiteblack/whitebrown, whitered/ whiteorange, whitegreen/whiteyel- low	1BD11*	8.1	13.1	7.3
111456	(4×0.5+4×2×0.38) 0.5: whiteblue, whiteblack, whitered, whiteyellow 0.38: black/brown, red/orange, green/yellow, blue/violet	1BD21*	9.2	13.2	8.6
111459	(2×(0.5)+3×(2×0.14)) 0.5: black, red 0.14: black/brown, red/orange, green/yellow	1BD31*	8.7	12.8	6.9
111458	(2×0.5+3×(2×0.14)+4×0.14) 0.5: brownblue, brownred (0.14) black/brown, red/orange, green/yellow 0.14: blue, grey, whiteblack, whi- teyellow	1BD41*	9.0	12.2	6.1
111457	(2×0.5+3×(2×0.14)+4×0.23+4×0.14) 0.5: brownblue, brownred 0.23: greenblack, greenred, brow- nyellow, browngrey (0.14) black/brown, red/orange, yel- low/green 0.14: blue, grey, whiteblack, whi- teyellow	1BD51*	9.6	15.3	9.3
111453	(4×2×0.18) black/brown, red/orange, green/yel- low, blue/violet	1BD61*	6.4	7.6	3.2
111452	(2×2×0.18) Star quad, black, red, orange, brown	1BD71*	5.0	4.2	2.2
111454	(12×0.23) black, brown, red, orange, green, yellow, blue, violet, grey, white, whiteblack, whitebrown	1BD81*	6.7	8.5	4.7
For Siemens-System Drive CliQ standard system (and similar)					
104310	(2×2×0.15+1×2×0.34) 0.34: red/black 0.15: pink/blue, yellow/green	2DC00*	6.8	7.3	3.4

CE These products are in conformity to the EC Low Voltage Direc-
tive 73/23/EWG or 93/68/EWG respectively
*Siemens and DRIVE CliQ are registered trademarks

Connectors used with LUTZE Cable Assemblies

Connectors – Standard thread vs. Speed-connect

Female

Standard thread



Speed-connect



Male

Standard thread – with o-ring



Speed-connect – Remove o-ring



General features

- High quality industrial grade connectors
- Proper low resistance crimp and shield termination
- Quality tested and verified
- Fully compatible with SIEMENS servo systems
- Available in various industrial protection grades (IP)

Speed-connect features

- Fast connection due to one-quarter turn lock
- No o-ring required
- Full protection against vibration

Male connector can be used with female standard thread and female Speed-connect connectors.

Important: Remove o-ring for Speed-connect option

LUTZE Safecon Connectors



For special applications, LUTZE offers Safecon connectors with the following advantages:

- tamper proof connector
- increased kink protection for flexing applications
- similar benefits to overmold connectors

По вопросам продаж и поддержки обращайтесь:

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Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
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Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
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Тамбов (4752)50-40-97
Тверь (4822)63-31-35

Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
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