

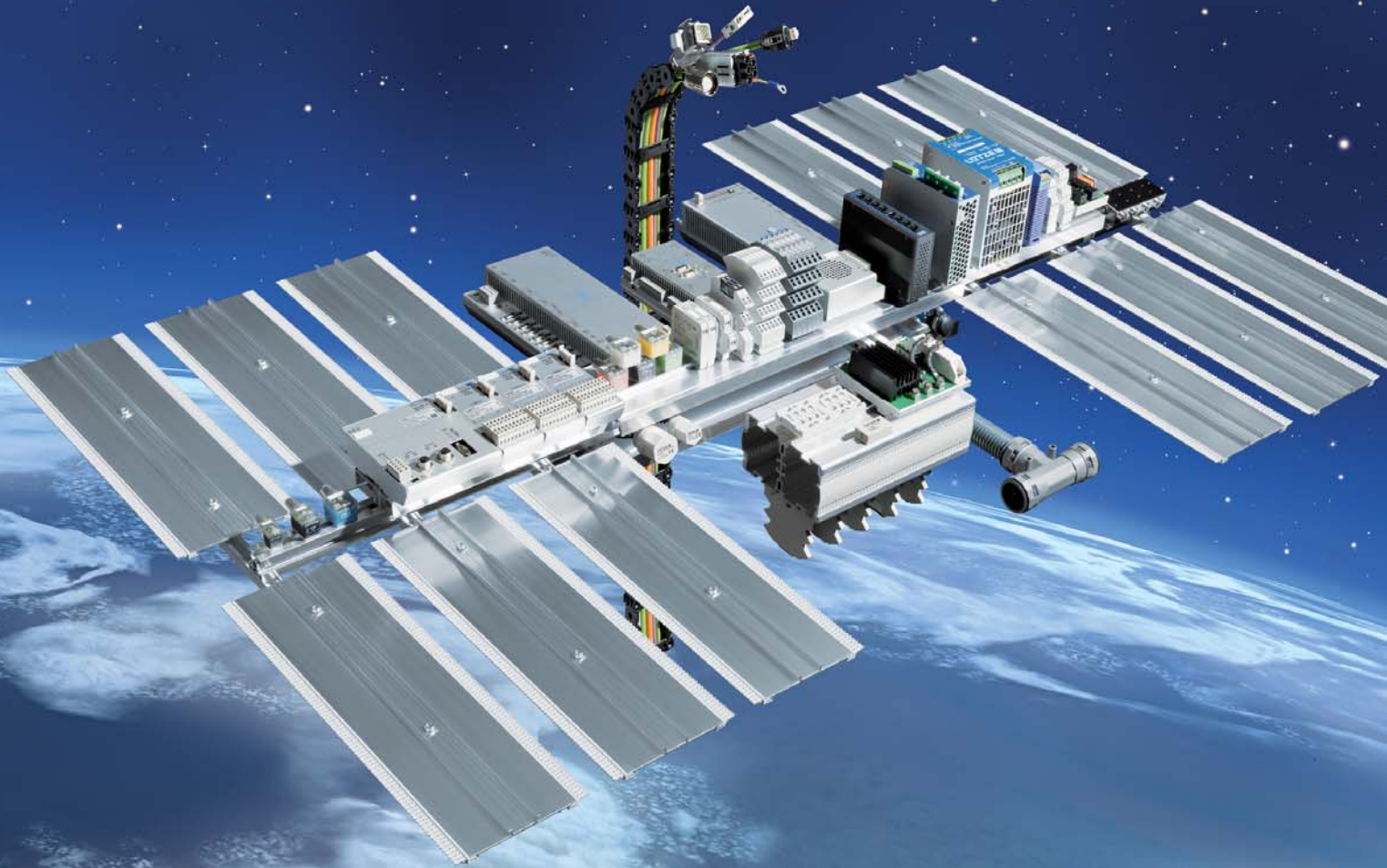


■ Connectivity Solutions

Cable Assemblies according to SIEMENS 6FX Standard

Efficiency in Automation

Cable • Connectivity • Cabinet • Control



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Welcome to LUTZE

Cable Solutions



Efficiency in Automation - A reflection of our company philosophy

As an experienced specialist in automation technology, with solutions for flexible and high flexing cables, cable assemblies, interfaces, current control and cabinet wiring, we have had a focus on efficiency for many years.

Connectivity Solutions



LÜTZE defines Efficiency in Automation as the use of sustainable products and solutions to further increase the performance of our products in our customers applications.

We realise this by using components for highly efficient control systems, products with above average life cycles and raising energy efficiency in control cabinets by means of the LSC wiring system.

Cabinet Solutions



Efficiency in Automation reflects our efforts in striving for efficient working relationships with our customers: in a medium sized family owned company we have short communication channels and a high level of manufacturing competence.

The value of a product or a solution from LÜTZE is determined by its sustainable qualities. Every innovation will only be successful in the future if it has a long term positive effect. Therefore, we provide long lasting as well as highly efficient components.

Control Solutions



Thus LÜTZE creates value through efficiency. LÜTZE provides answers and demonstrates how to handle resources responsibly, with our environment and our future in mind. **LÜTZE - Efficiency in Automation**

For more information on our solutions, please visit www.lutze.com

Transportation Solutions





Motor and servo feed by means of maximum



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 with 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!

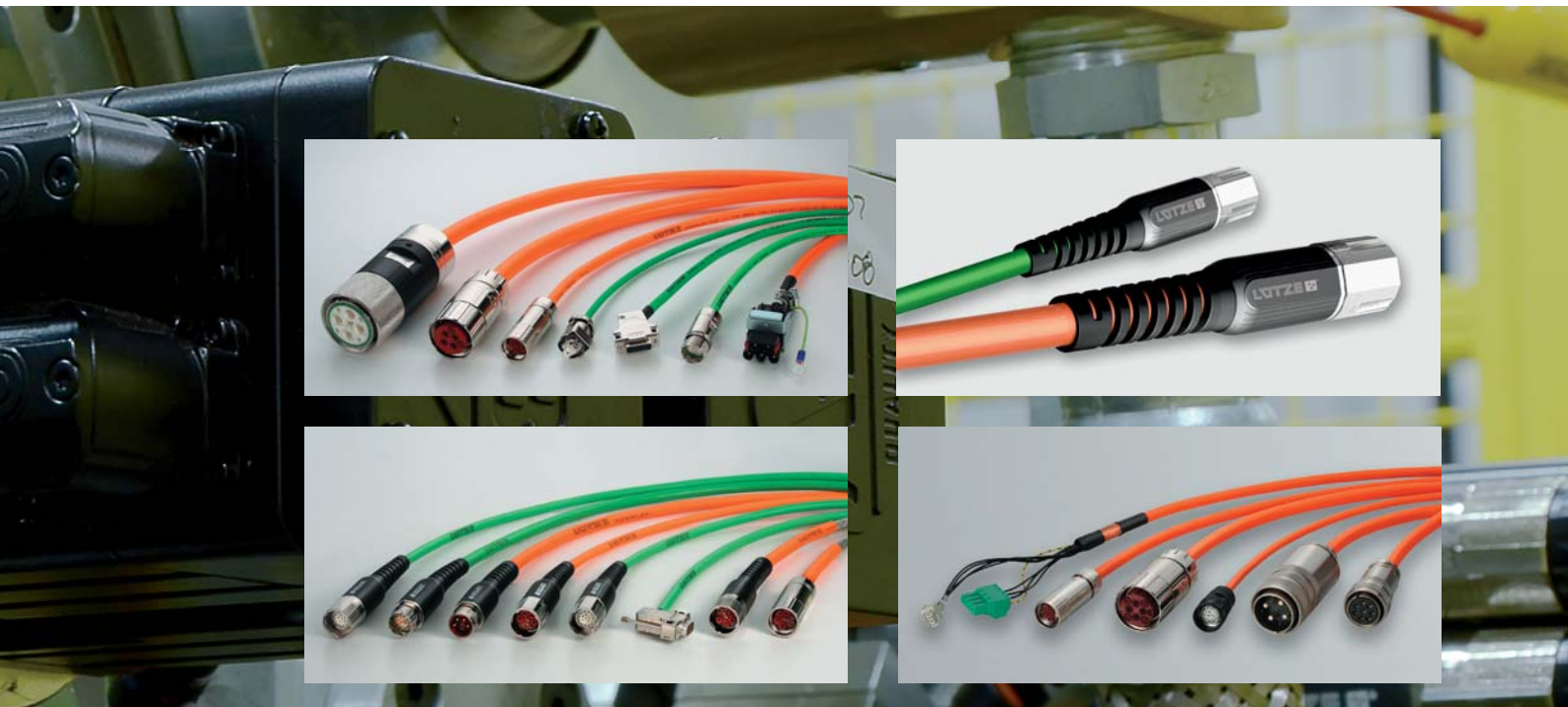
We have a wide range of cables, connectors, protective hoses and openings to choose from - all readily available!

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!

back: Best possible efficiency 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.



Cable assemblies for the following systems:

Allen-Bradley
Bosch Rexroth
Lenze
SEW
Siemens 6FX



Always connected pro Cable assemblies by



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 Allen Bradley®, SIEMENS®, BOSCH REXROTH®, LENZE®, SEW@...
- Production of single unit available
- Available at short notice
- Protection class IP66/67

perly 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!



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 pairs for fixed installation

According to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For stationary and flexible applications without continuous flexing

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
- 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 %
- Orange PVC jacket, RAL2003

Part No.	SIEMENS designation	Length m	Number of strands/cross-section	OD 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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* UL approval and technical data shown apply to the cable used in the assemblies

Servo cable assemblies without brake pairs for fixed installation

According to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing

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
- 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 %
- Orange PVC jacket, RAL2003

Part No.	SIEMENS designation	Length m	Number of strands/cross-section	OD 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 pairs for fixed installation

According to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing

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
- 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 strands/cross-section	OD 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	(4G4+(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 pairs for fixed installation

According to SIEMENS-6FX5002 standard Base cable



Application

- Base cable for Siemens servo drives
- For flexible applications without continuous flexing

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
- 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 strands/cross-section	OD 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 pairs for fixed installation

According to SIEMENS-6FX5002 standard Extension



Application

- Extension cable for Siemens servo drives
- For flexible applications without continuous flexing

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
- 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 strands/cross-section	OD 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 pairs for fixed installation

According to SIEMENS-6FX5002 standard Extension



Application

- Extension cable for Siemens servo drives
- For flexible applications without continuous flexing

Properties

- PVC Flame-retardant, self-extinguishing
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UL approval	cURus
Nominal voltage	1000 V 80 °C
Voltage	
U_g/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
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Construction

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special TPM/PP-conductor insulation, UL
- 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 strands/ cross-section	OD 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

* Siemens article designations are registered trademarks of Siemens AG, and are for reference purposes only
* UL approval and technical data shown apply to the cable used in the assemblies.

Signal cable assemblies for fixed installation

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



Application

- Resolver cable
- For flexible application without continuous flexing

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

LÜTZE SUPERFLEX® and LÜTZE SUPERFLEX® PLUS



LÜTZE SUPERFLEX® sets Industry standards: longevity, reliability, flexibility

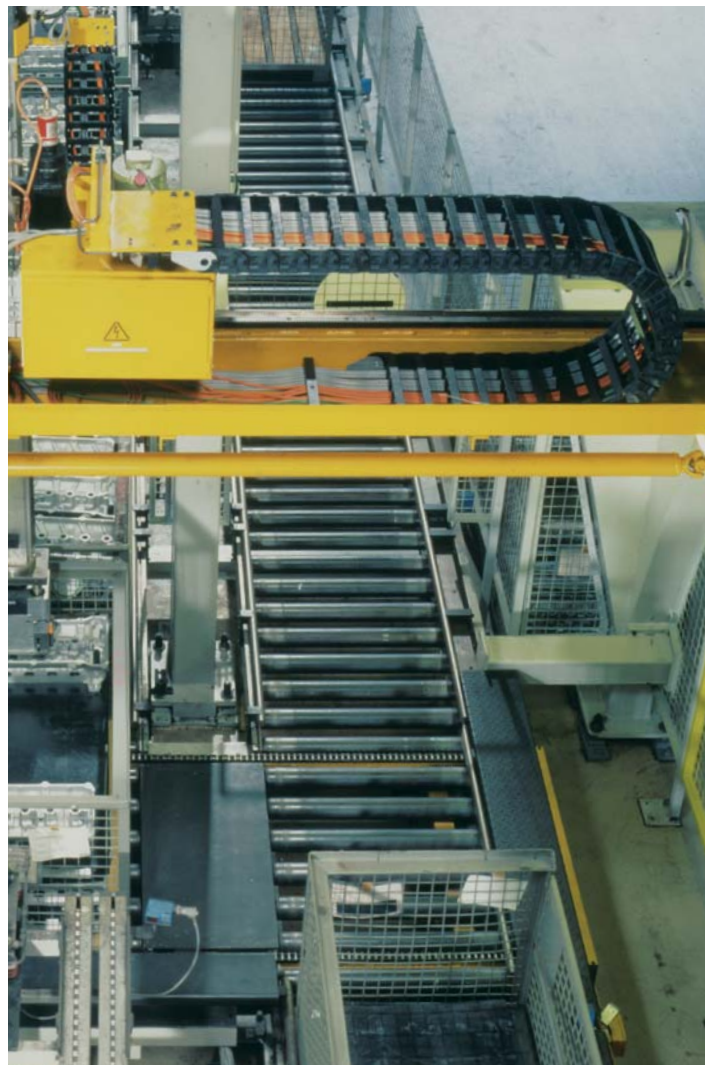
LÜTZE offers a variety of high flexing cables specifically designed for use in continuous motion applications such as drag chains. LÜTZE SUPERFLEX® and LÜTZE SUPERFLEX® Plus cables include high flexing control and motor supply cables, as well as electronic and network cables.

All LÜTZE SUPERFLEX® cables are compatible with all major brand drag chains.

LÜTZE SUPERFLEX® N is designed for moderate to higher performance flexing in short to medium length drag chains. LÜTZE SUPERFLEX® N is offered with PVC or High Glide Insulation (TPE) insulation and with specially formulated PVC jacket.

LÜTZE SUPERFLEX® Plus PUR is designed for high performance flexing or longer drag chains. LÜTZE SUPERFLEX® Plus PUR contains high grade premium materials such as High Glide TPE insulation and PUR jackets for high performance applications in modern high speed machine tools.

All high flexing cables require special handling and installation techniques which are different from those of standard flexible control cables. To ensure the longest possible life span for your cable, it is important to follow installation procedures precisely.



Find here more informations
about LÜTZE SUPERFLEX®:
<http://bit.ly/ZUdgUK>

Bending cycles of high flexing cables

LÜTZE SUPERFLEX® - longevity, reliability, flexibility

The high mechanical requirements in a drag chain require the use of special cables, which are designed for the usage in continuous motion application. The life span of cable in drag chains is strongly influenced by mechanical parameters of the application, as well as the carefulness of the installation.

Type of cable	Traveling distance in m	Bending radius = Factor x Cable-Ø (mm)	Velocity m/s	Acceleration m/s ²	Cycles mio.
LÜTZE SUPERFLEX® PLUS					
Unshielded cable with special TPE or HGI	≤ 5	≥ 10 Ø	≤ 3	≤ 5	≥ 20
insulation, PUR or TPE jacket	≤ 20	≥ 7,5 Ø	≤ 5	≤ 10	≥ 10
	≤ 100	≥ 7,5 Ø	≤ 5	≤ 10	≥ 2
LÜTZE SUPERFLEX® PLUS (C)					
Shielded cable with special TPE or HGI	≤ 5	≥ 12 Ø	≤ 3	≤ 5	≥ 20
insulation, PUR or TPE jacket	≤ 20	≥ 10 Ø	≤ 5	≤ 10	≥ 10
	≤ 100	≥ 10 Ø	≤ 5	≤ 10	≥ 2
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 of this table show application-parameter and actual performed cycles in independent tests. The cycle count can only be compared, if every value is taken in consideration with each other. A valuation as "Million Operating Cycles" is insignificant, if traveling distance, velocity and bending radius is unknown.

LÜTZE SUPERFLEX® PLUS M (C) PUR UL Servo 0,6 / 1 kV according to SIEMENS* Standard Similar to SIEMENS MOTION-CONNECT 800PLUS

	Traveling distance in m	Bending radius = Factor x Cable-Ø (mm)	Velocity m/s	Acceleration m/s ²	Cycles mio.
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 pairs for C-tracks

According 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
- 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
- Orange PUR jacket, RAL 2003

Part No.	SIEMENS designation	Length m	Number of strands/cross-section	OD 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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* UL approval and technical data shown apply to the cable used in the assemblies.

Servo cable assemblies without brake pairs for C-tracks

According 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 strands/cross-section	OD 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
- 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
* UL approval and technical data shown apply to the cable used in the assemblies.

Servo cable assemblies with brake pairs for C-tracks

According 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
- 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 strands/ cross-section	OD 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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* UL approval and technical data shown apply to the cable used in the assemblies.

Servo cable assemblies with brake pairs for C-tracks

According 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
- 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 strands/ cross-section	OD 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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* UL approval and technical data shown apply to the cable used in the assemblies.

Servo cable assemblies without brake pairs for C-tracks

According to SIEMENS-6FX8002 standard Extension



Application

- Extension 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

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
- 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 strands/cross-section	OD 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

* Siemens article designations are registered trademarks of Siemens AG, and are for reference purposes only
* UL approval and technical data shown apply to the cable used in the assemblies.

Servo cable assemblies with brake pairs for C-tracks

According to SIEMENS-6FX8002 standard Extension



Application

- Extension 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

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 M Ω × 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
- 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 \geq 85 %
- Outer jacket Full polyurethane jacket, matte, adhesion-free surface
- Jacket color orange RAL 2003

Part No.	SIEMENS designation	Length m	Number of strands/ cross-section	OD \varnothing 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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* UL approval and technical data shown apply to the cable used in the assemblies.

Signal cable assemblies for C-tracks

According to SIEMENS-6FX8002 standard Base cable DRIVE-CLIQ®



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

Signal cable assemblies for C-tracks

According to SIEMENS-6FX8002 standard
base cable and extension



LÜTZE SUPERFLEX®
←connected

halogen free
flame retardant



cRU[®] US

RoHS

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
- 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	OD 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 strands/cross-section	SIE-MENS designation	OD 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 2014/35/EU

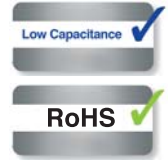
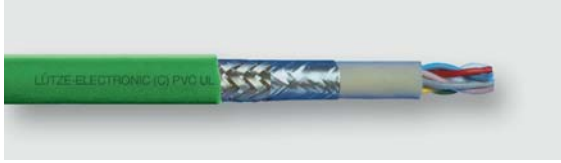
*Siemens article designations are registered trademarks of Siemens AG

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

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. 200 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	OD 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+1×2×AWG22) AWG26: green/yellow/blue/pink AWG22: red/black	6.8	8.5	4.2

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

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

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	7.5×D ≤16 mm ²
	10×D ≥25 mm ²
fixed	5×D
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 strands/cross-section	SIEMENS designation	OD 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

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

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
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 %
- Full polyurethane jacket, matte, adhesion-free surface
- Jacket color green RAL 6018

Part No.	Number of strands/cross-section/ strand colors	SIE- MENS designa- tion	OD 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, gray/white, whiteblack/whitebrown, whitered/white- orange, whitegreen/whiteyellow	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, gray, whiteblack, whiteyel- low	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, brownyel- low, browngray (0.14) black/brown, red/orange, yellow/ green 0.14: blue, gray, whiteblack, whiteyel- low	1BD51*	9.8	15.3	9.3
111453	(4×2×0.18) black/brown, red/orange, green/yellow, 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, yel- low, blue, violet, gray, white, whiteblack, whitebrown	1BD81*	6.7	8.5	4.7
For Siemens-System Drive Cliq standard system (and similar)					
104310	(2×2×AWG26+1×2×AWG22) AWG26: pin/bl, yel/grn AWG22: red/black	2DC00*	6.8	7.3	3.4

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Additional information on LUTZE Cable Assemblies

Connectors – Standard thread vs. Speed-connect

Female

Standard thread



Male

Standard thread – with 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



Speed-connect – Remove o-ring



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

Special features

- No minimum order
- Short lead times
- Cable lengths are available in increments of 0.5 meters
- Please provide complete part number including length code as explained in the key

Key to Lutze Cable Assembly Part Numbers:

- Technical design
- Cable length in cm

For example, 198360.0500 corresponds to a cable length of 5 m/ 500 cm

Technical design	Cable length in cm
198360	0500

Handling and Installation LÜTZE SUPERFLEX® – Quick Overview

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

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

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

High Flexing Cables such as LÜTZE SUPERFLEX® cables are different from standard flexible cables:

Standard Flexible Cables – LÜTZE SILFLEX®



long pitch

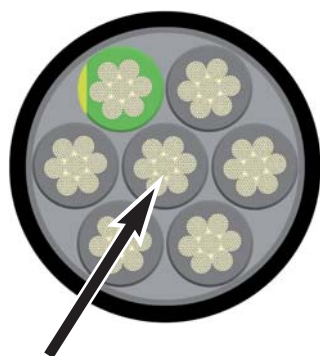
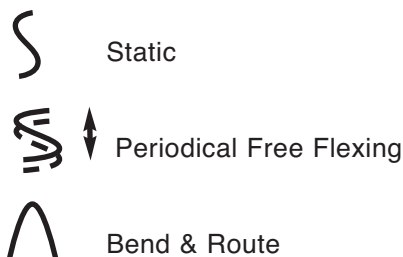
- Low number of strands per conductor
- longer pitch layering
- designed as a pliable cable for easy routing and installation

High Flexing Cables – LÜTZE SUPERFLEX®

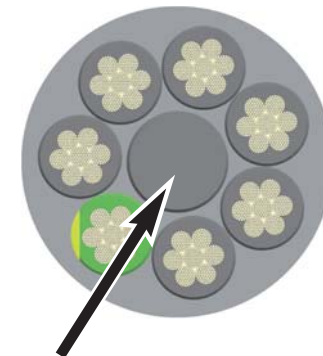


short pitch, layered design with control core

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



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

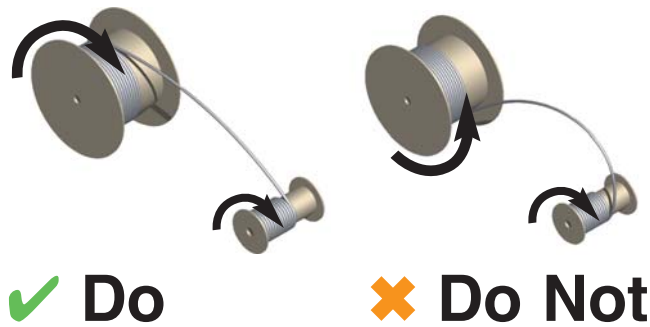


- central core for single layer construction
- special PVC or TPE as insulation material
- tinned copper braid shield
- high abrasion resistant jacket material such as PUR

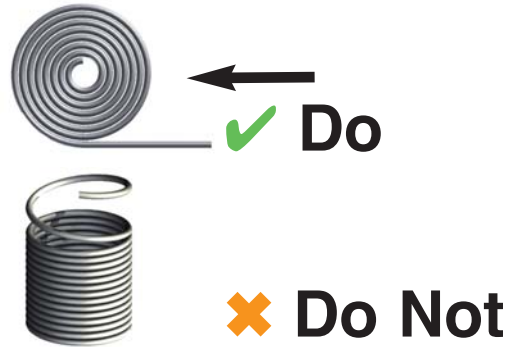
Handling and Installation LÜTZE SUPERFLEX® – Quick Overview

2. Correct Handling of LÜTZE SUPERFLEX® Cables

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



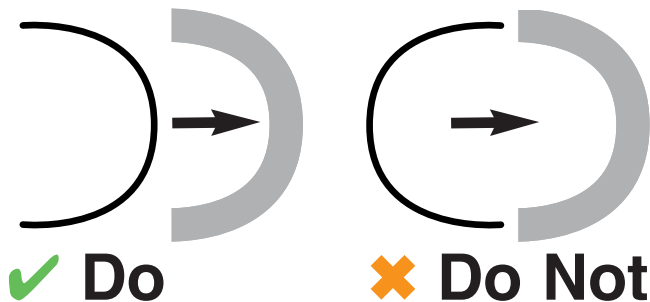
Ring put ups require careful uncoiling by rolling the ring upright over the floor



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

3. Correct Installation of LÜTZE SUPERFLEX® Cables

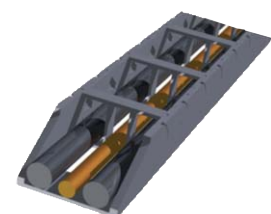
Cable retains bend from reel. Do not flex against original bend or relax cable for 24 hrs by laying it flat.



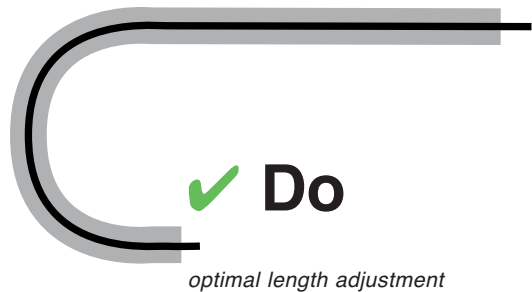
Use dividers horizontally and vertically to separate the track into separate cavities. Install just one cable per separated cavity. If absolutely necessary, two small or a small and a big cable can share a cavity.



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



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





RoHS

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