

readycable® signal cable suitable for Siemens

6FX_002-2CB31, basic cable, TPE 5 x d

MAT9070007



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- For heaviest duty applications
- TPE outer jacket
- Overall shield
- Coolant-resistant
- Low-temperature-flexible
- Hydrolysis and microbe-resistant
- Halogen-free
- Silicone-free
- UV-resistant
- PVC-free
- Oil-resistant (following DIN EN 60811-404), resistant to bio oils (following VDMA 24568 with Plantocut 8 S-MB tested by DEA)
- CFRIP®
- Guarantee up to 4 years

Product description

Introducing the readycable® signal cable, designed for Siemens 6FX_002-2CB31. This robust cable is perfect for heavy-duty applications, featuring a TPE outer jacket that ensures durability and flexibility in low temperatures. Its UV-resistant and oil-resistant properties make it suitable for both indoor and outdoor use, while its overall shield provides added protection. Ideal for storage units, machining tools, and outdoor cranes, this cable is a reliable choice for demanding environments.

Manufacturer attributes

Manufacturer Part No	6FX_002-2CB31
Cable type	Basic cable

Connectors

Connector A	round plug, socket
Connector B	SUB-D, pin



General properties

Number of cores and conductor nominal cross-section	(12x0.25)C
Outer diameter (d) max. mm	9.5 mm
Weight per km	122 kg/km
Copper index kg/km	65 kg/km

Electricity attributes

 Nominal voltage	300/500V (according to DIN VDE 0298-3)
UL Voltage Rating	300 V
 Test voltage	2000V (according to DIN EN 50395)
Maximum conductor resistance at 20°C [$\mu\Omega$]	79.0000

Properties and approvals

 UV resistance	High
Oil resistance	Oil-resistant (according to DIN EN 60811-404), bio-oil-resistant (according to VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
 Silicone-free	Free from silicone which can affect paint adhesion (according to PV 3.10.7 – status 1992)
Halogen-free	According to DIN EN 60754
 UL verified	Certificate no. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
UL AWM	Style 11886 and 22351, 1000 V, 90 °C
 REACH	In accordance with Regulation (EC) No. 1907/2006 (REACH)
 Lead-free	According to 2011/65/EU (RoHS-II/RoHS-III)
 Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1
 CE	According to 2014/35/EU



Cable structure



Conductor

Stranded conductor in an especially bend-resistant version consisting of bare copper wires (according to DIN EN 60228).



Core insulation

Mechanically high-quality TPE mixture.



Core stranding

Cores wound in bundles are then wound around a high tensile strength centre element, all with optimised short pitch lengths and directions. Especially low-torsion structure.



Conductor colours

Colour code according to DIN 47100

Core group 1 core structure

(12x0.25)C



Inner jacket

TPE mixture adapted to suit the requirements in e-chains®.



Overall shield

Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%



Outer jacket

Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®.



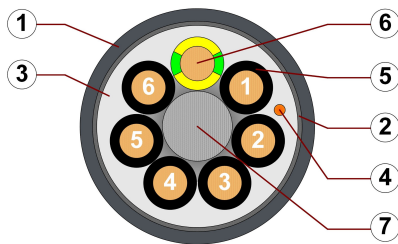
Outer jacket colour

Steel blue (comparable to RAL 5011)



CFRIP®

Strip cables faster: a tear strip is moulded into the inner jacket



1. Outer jacket: pressure extruded, halogen-free TPE mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires
3. Inner jacket: pressure extruded, gusset-filling TPE mixture
4. CFRIP tear strip for faster stripping
5. Core insulation: mechanically high-quality TPE mixture
6. Conductor: stranded wire in especially flexible version consisting of bare copper wires
7. Strain relief: high tensile strength centre element
8. 12 cores or more: bundles with optimised pitch length and direction



Dynamic properties

	Min. bend radius, e-chain (factor)	5 x d
	Min. bend radius, e-chain	47.5 mm
	Min. bend radius, flexible (factor)	4 x d
	Min. bend radius, fixed (factor)	3 x d
	Temperature e-chain®	-35°C up to +100°C
	Temperature, flexible	-50°C to +100°C (according to DIN EN 60811-504)
	Temperature, fixed	-55°C to +100°C (according to DIN EN 50305)
	v max. unsupported (speed)	10 m/s
	v max. gliding (speed)	6 m/s
	a max. (acceleration)	100 m/s ²
	travel length	Class 6
	torsion	No torsion



chainflex®Lifetime

Guaranteed service life for this series according to the guarantee conditions

More information: [chainflex® Guarantee](#)

Double strokes*	5 million	7,5 million	12.5 million
Temperature,	R min.	R min.	R min.
from/to [°C]	[Factor x d]	[Factor x d]	[Factor x d]
-35 / -25	6,8	7,5	8,5
-25 / +90	5	6	7
+90 / +100	6,8	7,5	8,5

* Higher number of double strokes possible - use the service life calculation function on this page.

Certificates and standards

