

readycable® servo cable suitable for Siemens

6FX_002-5DA31, basic cable PUR 7.5xd

MAT9060004



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- For extremely heavy duty applications
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Notch-resistant
- Flame retardant
- Hydrolysis and microbe-resistant
- Guarantee up to 4 years

Product description

Introducing the readycable® servo cable, designed for Siemens 6FX_002-5DA31. This cable features a durable PUR outer jacket, making it ideal for extremely heavy-duty applications. It offers exceptional oil resistance and is suitable for both indoor and outdoor use, with UV protection. The cable is halogen-free, flame retardant, and resistant to coolant, hydrolysis, and microbes. Perfect for storage units, machining tools, and low-temperature environments, it ensures reliable performance in demanding conditions.

Manufacturer attributes

Manufacturer Part No	6FX_002-5DA31
Cable type	Basic cable

Connectors

Connector A	round plug, socket
Connector B	open cable end

General properties

Number of cores and conductor nominal cross-section	(4G2.5+(2x1.5)C)C
Outer diameter (d) max. mm	14.5 mm
Weight per km	306 kg/km
Copper index kg/km	199 kg/km



Electricity attributes

	Nominal voltage	600/1,000V (according to DIN VDE 0298-3)
	UL Voltage Rating	1000 V
	Test voltage	4000V (according to DIN EN 50395)

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, especially low-capacity XLPE mixture.
	Core stranding	Power cores with control pair elements wound with elements for high-tensile stresses.
	Conductor colours	Power cores: cores black with white digits, one core green-yellow. 1st core: U / L1 / C / L+ 2nd core: V / L2 3rd core: W / L3 / D / L- Control pair: Cores black with white numbers. 1st control wire: 4 2nd control wire: 5
	Core group 1 core structure	4G2.5
	Core group 2 core structure	(2x1.5)C)C
	Element shield	Extremely bend-resistant braiding made of tinned copper wires.
	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, halogen-free, highly abrasion-resistant PUR mixture, adapted to suit the requirements in e-chains® (according to DIN EN 50363-10-2).
	Outer jacket colour	Pastel orange (comparable to RAL 2003)
	CFRIP®	Strip cables faster: a tear strip is moulded into the inner jacket



Dynamic properties

	Min. bend radius, e-chain (factor)	7.5 x d
	Min. bend radius, e-chain	108.75 mm
	Min. bend radius, flexible (factor)	6 x d
	Min. bend radius, fixed (factor)	4 x d
	Temperature e-chain®	-25°C up to +80°C
	Temperature, flexible	-40°C to +80°C (according to DIN EN 60811-504)
	Temperature, fixed	-50°C to +80°C (according to DIN EN 50305)
	v max. unsupported (speed)	10 m/s
	v max. gliding (speed)	5 m/s
	a max. (acceleration)	80 m/s ²
	travel length	Class 5
	torsion	No torsion



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions

Further information: [chainflex® guarantee](#)

Double strokes*	5 million	7.5 million	10 million
Temperature,	R min.	R min.	R min.
from/to [°C]	[Factor x d]	[Factor x d]	[Factor x d]
-25 /-15	10	11	12
-15 /+70	7.5	8.5	9.5
+70 / +80	10	11	12

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



Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (according to DIN EN 50363-10-2), Class 3
	Offshore	MUD-resistant according to NEK 606 - status 2018
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2/Horizontal Flame
	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: "igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
	UL/CSA AWM	Style 10492 and 20234, 1000 V, 80 °C
	NFPA	According to NFPA 79-2018, chapter 12.9
	DNV	Type approval certificate TAE00003XA
	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 CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
	DESINA	According to VDW, DESINA standardisation
	CE	According to 2014/35/EU



Certificates and standards

