

readycable® servo cable suitable for Siemens

6FX_002-5DN31, basic cable, PVC 15xd

MAT9451577



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- For flexing applications
- PVC outer jacket
- Not oil-resistant
- Silicone-free
- Flame retardant
- Overall shield
- Guarantee up to 4 years

Product description

Introducing the readycable® servo cable, designed for Siemens 6FX_002-5DN31 applications. This high-quality basic cable features a durable PVC outer jacket, making it ideal for flexing applications and indoor use. It is flame retardant and silicone-free, ensuring safety and reliability. Perfect for wood and stone processing, packaging, and handling tasks, it supports unsupported travels up to 10m. Trust in the readycable® series for exceptional performance in your projects.

Manufacturer attributes

Manufacturer Part No	6FX_002-5DN31
Cable type	Basic cable

Connectors

Connector A	M40 connector, socket, 6-pin
Connector B	Sinamics connector/ring cable lug

General properties

Number of cores and conductor nominal cross-section	(4G2.5+(2x1.5)C)C
Outer diameter (d) max. mm	13.5 mm
Weight per km	254 kg/km
Copper index kg/km	182 kg/km

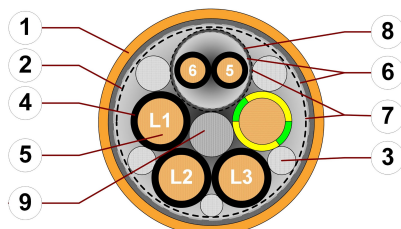


Electricity attributes

	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	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
	Core stranding	Power cores and control pair elements wound together in an optimised pitch length.
	Conductor colours	Power cores: Cores black with white numbers, one core green-yellow. 1st core: U / L1 / C / L+ 2nd core: V / L2 3rd core: W / L3 / D / L- 1 control pair: Cores black with white numbers. 1st control wire: 5 2nd control wire: 6
	Core group 1 core structure	4G2.5
	Core group 2 core structure	(2x1.5)C)C
	Element shield	Foil taping of optimised, flexible foil shield.
	Overall shield	Braiding made of tinned copper wires. Cover approx. 60% optical.
	Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®.
	Outer jacket colour	Pastel orange (comparable to RAL 2003)



1. Outer jacket: pressure-extruded PVC mixture
2. Overall shield: braiding made of tinned copper wires
3. Filler: plastic yarns
4. Core insulation: mechanically high-quality, especially low-capacitance TPE mixture
5. Conductor: strands consisting of bare copper wires
6. Shield film: aluminium-coated plastic foil
7. Banding: plastic foil
8. Element shield: tinned copper wires wrapped around it
9. Strain relief: plastic core element



Properties and approvals

	UV resistance	none
	Oil resistance	No oil resistance
	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)
	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/CSA AWM	Style 10492 and 2570, 1000 V, 80 °C
	NFPA	According to NFPA 79-2018, chapter 12.9
	REACH	In accordance with Regulation (EC) No. 1907/2006 (REACH)
	Lead-free	According to 2011/65/EU (RoHS-II/RoHS-III)
	CE	According to 2014/35/EU



Dynamic properties

	Min. bend radius, e-chain (factor)	15 x d
	Min. bend radius, e-chain	202.5 mm
	Min. bend radius, flexible (factor)	12 x d
	Min. bend radius, fixed (factor)	8 x d
	Temperature e-chain®	+5°C up to +70°C
	Temperature, flexible	-5°C to +70°C (according to DIN EN 60811-504)
	Temperature, fixed	-15°C to +70°C (according to DIN EN 50305)
	v max. unsupported (speed)	3 m/s
	v max. gliding (speed)	0 m/s
	a max. (acceleration)	20 m/s ²
	travel length	Class 1
	torsion	No torsion



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions
Further information: [chainflex® guarantee](#)

Double strokes*	1 million	3 million	5 million
Temperature,	R min.	R min.	R min.
from/to [°C]	[Factor x d]	[Factor x d]	[Factor x d]
+5 / +15	17.5	18.5	19.5
+15 / +60	15	16	17
+60 / +70	17.5	18.5	19.5

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

Certificates and standards

