

readycable® servo cable suitable for Siemens

6FX_002-5DQ31, basic cable, PVC 15xd

MAT9451563



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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_002-5DQ31 applications. This versatile basic cable features a durable PVC outer jacket, making it perfect for flexing applications indoors, especially for unsupported travels up to 10m. Ideal for wood and stone processing, packaging, and handling devices, it is silicone-free, flame retardant, and equipped with an overall shield. Choose reliable performance with the readycable® series for your next project.

Manufacturer attributes

Manufacturer Part No	6FX_002-5DQ31
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	13.5 mm
Weight per km	254 kg/km
Copper index kg/km	182 kg/km

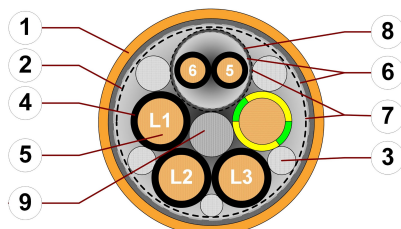


Electricity attributes

	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

