

Product type designation

Product description

PROFIBUS Torsion Cable

Highly flexible bus cable (2-core), sold by the meter, unassembled PROFIBUS torsion cable, to use in highly flexible applications (torsion) Delivery unit: max. 1000 m, minimum order 20 m, Sold by the meter



Suitability for use

For use in moving machine components

Cable designation

02Y (ST) C 11Y 1x2x0,8/2,56-150 LI FR VI

Electrical data

Damping ratio per length

• at 9.6 kHz / maximum	0.0025 dB/m
• at 38.4 kHz / maximum	0.003 dB/m
• at 4 MHz / maximum	0.025 dB/m
• at 16 MHz / maximum	0.049 dB/m

Impedance

• Rated value	150 Ω
• at 9.6 kHz	270 Ω
• at 38.4 kHz	185 Ω
• at 3 MHz ... 20 MHz	150 Ω

Relative symmetrical tolerance

• of the characteristic impedance at 9.6 kHz	10 %
• of the characteristic impedance at 38.4 kHz	10 %

<ul style="list-style-type: none"> • of the characteristic impedance at 3 MHz ... 20 MHz 	10 %
Loop resistance per length / maximum	98 mΩ/m
Shield resistance per length / maximum	14 Ω/km
Insulation resistance coefficient	16000 GΩ·m
Capacity per length / at 1 kHz	29 pF/m
Operating voltage <ul style="list-style-type: none"> • RMS value 	80 V

Mechanical data

Number of electrical cores	2
Design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
Type of electrical connection / FastConnect	No
Outer diameter <ul style="list-style-type: none"> • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath 	0.8 mm 2.56 mm 6 mm 8 mm
Symmetrical tolerance of the outer diameter / of cable sheath	0.4 mm
Material <ul style="list-style-type: none"> • of the wire insulation • of cable sheath 	polyethylene (PE) PUR (TPE-U)
Color <ul style="list-style-type: none"> • of the insulation of data wires • of cable sheath 	red/green Violet
Bending radius <ul style="list-style-type: none"> • with single bend / minimum permissible • with continuous bending 	30 mm 60 mm
Number of bending cycles	Not suitable for garland usage
Number of torsion cycles / with torsion by ± 180° on 1 m cable length	5000000
Tensile load / maximum	100 N
Weight per length	65 kg/km

Ambient conditions

Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport • during installation • Note 	-25 ... +75 °C -40 ... +80 °C -40 ... +80 °C -25 ... +75 °C Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
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Burning behavior	flame resistant according to IEC 60332-1-2
Class of burning behaviour / according to EN 13501-6	Eca
Chemical resistance <ul style="list-style-type: none"> • to mineral oil • to grease • to water 	oil resistant according to IEC 60811-2-1 (7x24h/90°C) resistant conditional resistance
Radiological resistance / to UV radiation	resistant

Product features, product functions, product components / general

Product feature <ul style="list-style-type: none"> • halogen-free • silicon-free 	Yes Yes
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Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; CMX
UL/ETL style / 600 V Rating	No
Certificate of suitability <ul style="list-style-type: none"> • CE marking • RoHS conformity 	Yes Yes
Marine classification association <ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • Bureau Veritas (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) 	No No No No No No No

Further information / Internet-Links

Internet-Link <ul style="list-style-type: none"> • to website: Selector SIMATIC NET SELECTION TOOL • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAx Download Manager • to website: Industry Online Support 	http://www.siemens.com/snst http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter http://automation.siemens.com/bilddb http://www.siemens.com/cax https://support.industry.siemens.com
last modified:	01/20/2020