

Product type designation

Product description

IE TP Torsion Cable 2 x 2 (Type C)

Highly flexible bus cable (4-core), sold by the meter, unassembled Industrial Ethernet TP Torsion Cable, 2x2 (PROFINET Type C), TP installation cable, 4-core, for use in highly flexible applications (torsion), sold by the meter, Max. delivery length 1000 m, Minimum order 20 m



Suitability for use

Continuous motion control when using robots

Cable designation

02YS C11Y 1x4x0,75/1,5-100 LI VZN FRNC GN SF/UTP

Electrical data

Damping ratio per length

- at 10 MHz / maximum
- at 100 MHz / maximum

0.081 dB/m
0.41 dB/m

Impedance

- at 1 MHz ... 100 MHz

100 Ω

Relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz

15 %

Near-end crosstalk per length

- at 1 MHz ... 100 MHz

0.5 dB/m

Transfer impedance per length / at 10 MHz

100 mΩ/m

Loop resistance per length / maximum

120 mΩ/m

Operating voltage

- RMS value

80 V

NVP value in percent	70 %
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Mechanical data

Number of electrical cores	4
Design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
Type of electrical connection / FastConnect	No
Core diameter	
• of AWG22 core	0.76 mm
Outer diameter	
• of inner conductor	0.76 mm
• of the wire insulation	1.5 mm
• of cable sheath	6.5 mm
Symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
Material	
• of the wire insulation	polyethylene (PE)
• of cable sheath	PUR (TPE-U)
Color	
• of the insulation of data wires	white/yellow/blue/orange
• of cable sheath	green
Bending radius	
• with single bend / minimum permissible	32.5 mm
• with multiple bends / minimum permissible	65 mm
Number of bending cycles	Not suitable for garland usage
Number of torsion cycles / with torsion by $\pm 180^\circ$ on 1 m cable length	5000000
Tensile load / maximum	130 N
Weight per length	54 kg/km

Ambient conditions

Ambient temperature	
• during operation	-40 ... +80 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
• during installation	-20 ... +60 °C
• Note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
Burning behavior	flame resistant according to IEC 60332-1-2
Class of burning behaviour / according to EN 13501-6	Eca
Chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (7x24h/90°C)
• to grease	resistant

• to water	resistant
Radiological resistance / to UV radiation	resistant

Product features, product functions, product components / general

Product feature	
• halogen-free	Yes
• silicon-free	Yes
Wire length / for Industrial Ethernet	
• with 100BaseTX	75 m

Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; UL Style 21161
UL/ETL style / 600 V Rating	No
Certificate of suitability	
• CE marking	Yes
• RoHS conformity	Yes
Standard for structured cabling	Cat5e
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• Bureau Veritas (BV)	No
• Det Norske Veritas (DNV)	No
• Germanische Lloyd (GL)	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
• Polski Rejestr Statkow (PRS)	No

Further information / Internet-Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

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