

product type designation

product description



IE FC TP Torsion Cable GP 4X2 (AWG 24, Type C)

highly flexible bus cable (8-wire), sold by the meter, unassembled

IE FC TP torsion cable 4x2; (PROFINET type C), Cat6A; TP installation cable, 8-core, for use in highly flexible applications (torsion), sold by the meter, max. delivery unit 1000 m, minimum order quantity 20 m.

Technical Product Detail Page

<https://l.siemens.com/1P6XV1878-2D>

suitability for use

Continuous motion control when using robots

cable designation

SF/UTP, 2YH(ST)D11Y 4X2X0.6/1.04-100 LI VZN GN

wire length

sold by the meter

electrical data

attenuation factor per length

• at 10 MHz / maximum	0.089 dB/m
• at 100 MHz / maximum	0.287 dB/m
• at 250 MHz / maximum	0.466 dB/m
• at 300 MHz / maximum	0.514 dB/m
• at 500 MHz / maximum	0.679 dB/m

impedance

• at 1 MHz ... 100 MHz	100 Ω
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near-end crosstalk per length

• at 1 MHz ... 100 MHz	0.453 dB/m
• at 1 MHz ... 250 MHz	0.393 dB/m
• at 1 MHz ... 300 MHz	0.381 dB/m
• at 1 MHz ... 500 MHz	0.348 dB/m

coupling loss / at 30 MHz ... 100 MHz / minimum

80 dB

transfer impedance per length / at 10 MHz

80 mΩ/m

loop resistance per length / maximum

180 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

• RMS value	80 V
• maximum	80 V

NVP value in percent

69 %

mechanical data

number of electrical cores

8

design of the shield

SF/UTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires

type of electrical connection / FastConnect

Yes

core diameter

• of AWG24 insulated conductor	0.51 mm
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outer diameter

• of inner conductor	0.58 mm
• of the wire insulation	1.04 mm
• of the inner sheath of the cable	6.4 mm

• of cable sheath	8 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
• of the wire insulation	polyethylene (PE)
• of the inner sheath of the cable	FRNC
• of cable sheath	PUR
color	
• of the insulation of data wires	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
• of cable sheath	green
bending radius	
• with single bend / minimum permissible	32 mm
• with multiple bends / minimum permissible	64 mm
number of torsion cycles / with torsion by $\pm 180^\circ$ on 1 m cable length	5000000
tensile load / maximum	100 N
weight per length	77 kg/km
ambient conditions	
ambient temperature	
• during operation	-30 ... +80 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
• during installation	-30 ... +80 °C
• note	In fixed installation -40 °C to 80 °C
fire 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 60811-404 (7x24h/90°C)
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / general	
product feature	
• halogen-free	Yes; halogen-free according to IEC 61754-1
• PoE capability	Yes
• PoE+ capability	Yes
• PoE++ capability	Yes
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	100 m
• with 1000BaseT	100 m
• for 10GBase T	90 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us CMX, AWM-Style 21329
UL/ETL style / 600 V Rating	Yes
certificate of suitability	
• EAC approval	Yes
• CE marking	Yes
• RoHS conformity	Yes
product conformity	
• ANSI/TIA-EIA 568-B.2 Cat.5e	Yes
• IEC 61784-5-2-CP 2/2 (Ethernet/IP)	Yes
standard for structured cabling	Cat6A
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (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: Selection guide for cables and connectors
- to web page: selection aid TIA Selection Tool
- to web page: SiePortal
- to website: Image database
- to website: CAx-Download-Manager
- to website: Industry Online Support

<https://support.industry.siemens.com/cs/ww/en/view/109766358>
<https://www.siemens.com/tstcloud>
<https://sieportal.siemens.com/>
<https://www.automation.siemens.com/bilddb>
<https://www.siemens.com/cax>
<https://support.industry.siemens.com>

security information

security information

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Approvals / Certificates

General Product Approval

Environment



[Manufacturer Declaration](#)

[Environmental Conformations](#)

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