

product type designation

product description

IE FC TP Robust Flexible Cable GP 2x2 (Type B)

Flexible bus cable (4-core), sold by the meter, unassembled

Industrial Ethernet FastConnect TP robust flexible GP cable 2x2 (PROFINET Type B), TPE protective jacket, with flexible cores, for connection to FC RJ45 plug and FC outlet RJ45, 4-core, shielded, Cat5e, sold by the meter, delivery unit max. 1000 m minimum order quantity 20 m.



product brand name

Technical Product Detail Page

suitability for use

cable designation

wire length

SIMATIC NET

<https://i.siemens.com/1P6XV1841-2B>

For occasionally moved machine parts

SF/UTP, 2YH (ST) C99Y 2x2x0,75/1,5-100 LI GN

sold by the meter

electrical data

attenuation factor per length

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

0.065 dB/m
0.22 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

20 mΩ/m

loop resistance per length / maximum

120 mΩ/m

operating voltage

- RMS value

80 V

NVP value in percent

69 %

mechanical data

number of electrical cores

4

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 AWG22 insulated conductor

0.75 mm

outer diameter

- of inner conductor
- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

0.75 mm
1.5 mm
3.9 mm
6.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.2 mm

material

- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

polyethylene (PE)
FRNC
TPE (FR-TPE)

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	52 mm
tensile load / maximum	150 N
weight per length	68 kg/km
ambient conditions	
ambient temperature	
• during operation	-40 ... +75 °C
• during storage	-40 ... +75 °C
• during transport	-40 ... +75 °C
• during installation	-20 ... +60 °C
• note	electrical properties measured at 20 °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 DIN EN 50290-2-22 (VDE 0819), (7x24h/90°C), UL13 Sec.40 (96h/100°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	No
• PoE capability	Yes
• PoE+ capability	Yes
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	85 m
test voltage	
• at AC / core-to-core	2000 V
• at AC / core shield	2000 V
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CM, PLTC, SUN RES
UL/ETL style / 600 V Rating	No
certificate of suitability	
• EAC approval	Yes
• CE marking	Yes
• RoHS conformity	Yes
standard for structured cabling	Cat5e
• resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
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	https://support.industry.siemens.com/cs/ww/en/view/109766358
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
• to web page: SiePortal	https://sieportal.siemens.com/
• to website: Image database	https://www.automation.siemens.com/bilddb

- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://www.siemens.com/cax>
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security information

security information

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General Product Approval



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[Manufacturer Declaration](#)

[China RoHS](#)

[Declaration of Conformity](#)

General Product Approval

other

Environment

Industrial Communication



[Declaration of Conformity](#)

[Miscellaneous](#)

[Environmental Conformations](#)

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