

product type designation

product description



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

Flexible bus cable (4-core), preferred length, unassembled

Industrial Ethernet FC TP flexible cable GP 2x2; (PROFINET type B); TP installation cable with flexible cores; 4-core; shielded; Cat5e for connection to IE FC RJ45 Plug 2x 2, AWG22; 1000 m.

product brand name

SIMATIC NET

Technical Product Detail Page

<https://i.siemens.com/1P6XV1870-2BU10>

suitability for use

For occasionally moved machine parts

cable designation

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

wire length

1000 m; sold by the meter

electrical data

attenuation factor per length

- at 10 MHz / maximum 0.06 dB/m
- at 100 MHz / maximum 0.21 dB/m

impedance

- at 1 MHz ... 100 MHz 100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz 5 %

near-end crosstalk per length

- at 1 MHz ... 100 MHz 0.5 dB/m

transfer impedance per length / at 10 MHz

20 m Ω /m

loop resistance per length / maximum

120 m Ω /m

operating voltage

- RMS value 80 V

NVP value in percent

66 %

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 0.75 mm
- of the wire insulation 1.5 mm
- of the inner sheath of the cable 3.9 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 the inner sheath of the cable PVC
- of cable sheath PVC

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	-25 ... +75 °C
• during storage	-25 ... +75 °C
• during transport	-25 ... +75 °C
• during installation	-10 ... +60 °C
• note	electrical properties measured at 20 °C
fire behavior	flame resistant according to UL 1685 (CSA FT 4)
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	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, CMG / (ETL)us PLTC / Sun Res / OIL RES
UL/ETL style / 600 V Rating	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2
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
standards, specifications, approvals / Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	0.92 kg
• during manufacturing	0.83 kg
• during operation	0.02 kg
• after end of life	0.07 kg

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

other

Environment

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formity](#)



[Manufacturer Declara-
tion](#)



[Miscellaneous](#)



Environment

Industrial Communication

[Environmental Con-
firmations](#)

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firmations](#)

[PROFINET](#)

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