

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.

Technical Product Detail Page

<https://l.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 mΩ/m

loop resistance per length / maximum

120 mΩ/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

|   |                                   |
|---|-----------------------------------|
| <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>                                  | white/yellow/blue/orange<br>green |
| bending radius  |                                   |
| <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul> | 32.5 mm<br>52 mm                  |
| tensile load / maximum  | 150 N                             |
| weight per length   | 68 kg/km                          |

#### ambient conditions

|   |   |
|---|---|
| ambient temperature   |   |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> </ul> | -25 ... +75 °C<br>-25 ... +75 °C<br>-25 ... +75 °C<br>-10 ... +60 °C                                      |
| fire behavior   | flame resistant according to UL 1685 (CSA FT 4)   |
| class of burning behaviour / according to EN 13501-6  | Eca   |
| chemical resistance   |   |
| <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>   | oil resistant according to IEC 60811-404 (7x24h/90°C)<br>Conditional resistance<br>conditional resistance |
| radiological resistance / to UV radiation   | resistant   |

#### product features, product functions, product components / general

|   |                         |
|---|-------------------------|
| product feature   |                         |
| <ul style="list-style-type: none"> <li>• halogen-free</li> <li>• PoE capability</li> <li>• PoE+ capability</li> <li>• silicon-free</li> </ul> | No<br>Yes<br>Yes<br>Yes |
| wire length / for Industrial Ethernet   |                         |
| <ul style="list-style-type: none"> <li>• with 100BaseTX</li> </ul>  | 85 m                    |

#### 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  |   |
| <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>   | Yes<br>Yes<br>Yes                                     |
| standard for structured cabling   | Cat5e   |
| Marine classification association   |   |
| <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Germanische Lloyd (GL)</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> </ul> | No<br>No<br>No<br>No<br>No<br>No<br>No                |

#### standards, specifications, approvals / Environmental Product Declaration

|  |  |
|--|--|
| Environmental Product Declaration  | Yes                                      |
| global warming potential [CO2 eq]  |  |
| <ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul> | 0.92 kg<br>0.83 kg<br>0.02 kg<br>0.07 kg |

#### further information / internet links

|   |  |
|---|--|
| internet link   |  |
| <ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul> | <a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a><br><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a><br><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a><br><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a><br><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |

security information

security information

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Approvals / Certificates

| General Product Approval | other | Environment |
|--------------------------|-------|-------------|
|--------------------------|-------|-------------|

[Declaration of Conformity](#)



[Manufacturer Declaration](#)

[Miscellaneous](#)



[Environmental Confirmations](#)

Industrial Communication

[PROFINET](#)

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