

### product type designation

product description



### IE FC TP Standard Cable GP 4x2 (AWG 24, Type C)

Shielded TP installation cable (8-core), sold by the meter, unassembled

Industrial Ethernet FastConnect TP standard cable GP 4x 2, TP installation CAT6A cable for connection to IE FC RJ45 plug 4x 2, AWG24, sold by the meter, delivery unit max. 2000 m minimum order quantity 20 m.

suitability for use

Standard cable with rigid cores for fast, permanent installation

cable designation

2YH (ST) CY 4x2x0,5/1,0 GN

### electrical data

attenuation factor per length

• at 10 MHz / maximum	0.058 dB/m
• at 100 MHz / maximum	0.191 dB/m
• at 250 MHz / maximum	0.311 dB/m
• at 300 MHz / maximum	0.343 dB/m
• at 500 MHz / maximum	0.453 dB/m

impedance

• at 1 MHz ... 100 MHz	100 Ω
------------------------	-------

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

20 mΩ/m

loop resistance per length / maximum

190 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

• RMS value	80 V
• maximum	80 V

NVP value in percent

67 %

### mechanical data

number of electrical cores

8

design of the shield

Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires

type of electrical connection / FastConnect

Yes

core diameter

• of AWG24 insulated conductor	0.51 mm
--------------------------------	---------

outer diameter

• of inner conductor	0.51 mm
• of the wire insulation	1 mm
• of the inner sheath of the cable	6.1 mm
• of cable sheath	8 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.2 mm

material

<ul style="list-style-type: none"> <li>• of the wire insulation</li> <li>• of the inner sheath of the cable</li> <li>• of cable sheath</li> </ul>	<p>polyethylene (PE) FRNC PVC</p>
<p>color</p> <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>	<p>white-blue/blue, white-orange/orange, white-green/green, white-brown/brown green</p>
<p>bending radius</p> <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	<p>24 mm 40 mm</p>
<p>tensile load / maximum</p>	<p>100 N</p>
<p>weight per length</p>	<p>74.5 kg/km</p>
<b>ambient conditions</b>	
<p>ambient temperature</p> <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> </ul>	<p>-40 ... +85 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C</p>
<p>ambient condition / for operation</p>	<p>Temperature range for permanent installation -40 °C to +85 °C</p>
<p>fire behavior</p>	<p>flame resistant according to IEC 60332-3-24 (Category C)</p>
<p>class of burning behaviour / according to EN 13501-6</p>	<p>Eca</p>
<p>chemical resistance</p> <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>	<p>oil resistant according to IEC 60811-2-1 (4 h / 70°C) Conditional resistance conditional resistance</p>
<p>radiological resistance / to UV radiation</p>	<p>resistant</p>
<b>product features, product functions, product components / general</b>	
<p>product feature</p> <ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>	<p>No Yes</p>
<p>wire length / for Industrial Ethernet</p> <ul style="list-style-type: none"> <li>• with 100BaseTX</li> <li>• with 1000BaseT</li> <li>• for 10GBase T</li> </ul>	<p>100 m 100 m 90 m</p>
<b>standards, specifications, approvals</b>	
<p>UL/ETL listing / 300 V Rating</p>	<p>Yes; c(UL)us, CMG, AWM-Style 21500, cRU AWM I A/B 60°C 300V FT2</p>
<p>UL/ETL style / 600 V Rating</p>	<p>No</p>
<p>certificate of suitability</p> <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>	<p>Yes Yes Yes</p>
<p>product conformity</p> <ul style="list-style-type: none"> <li>• ANSI/TIA-EIA 568-B.2 Cat.5e</li> <li>• IEC 61784-5-2-CP 2/2 (Ethernet/IP)</li> </ul>	<p>Yes Yes</p>
<p>standard for structured cabling</p>	<p>Cat6A</p>
<p>Marine classification association</p> <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>	<p>No No No No No No No</p>
<p>reference code</p> <ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> <li>• according to IEC 81346-2:2019</li> </ul>	<p>WG WGB</p>
<b>further information / internet links</b>	
<p>internet link</p> <ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mail</li> </ul>	<p><a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a> <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a></p>

- to website: Information and Download Center
- to website: Selection guide for cables and connectors
- to website: Image database
- to website: CAx-Download-Manager
- to website: Industry Online Support

<http://www.siemens.com/industry/infocenter>  
<https://sie.ag/2QdlxcP>  
<http://automation.siemens.com/bilddb>  
<http://www.siemens.com/cax>  
<https://support.industry.siemens.com>

**last modified:**

8/18/2023 