

### product description



Standard bus cable (4 wires), preferred length, not assembled

IE FC TP Standard Cable GP 2x2 (PROFINET Type A), CAT5E bus cable 4-wire, shielded, special configuration for quick assembly to IE FC RJ45 plug 2x2, 500 m.

### suitability for use

Standard cable with rigid cores for fast installation

### cable designation

2YY (ST) CY 2x2x0,64/1,5-100 GN SF/UTP

### wire length

500 m

### electrical data

#### attenuation factor per length

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

0.052 dB/m  
0.195 dB/m

#### impedance

- at 1 MHz ... 100 MHz

100  $\Omega$

#### 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

10 m $\Omega$ /m

#### loop resistance per length / maximum

115 m $\Omega$ /m

#### operating voltage

- RMS value

80 V

#### NVP value in percent

69 %

### mechanical data

#### number of electrical cores

4

#### 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 AWG22 insulated conductor

0.64 mm

#### outer diameter

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

0.64 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)  
PVC  
PVC

#### color

- of the insulation of data wires
- of cable sheath

white/yellow/blue/orange  
green

#### bending radius

<ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> </ul>	19.5 mm
<ul style="list-style-type: none"> <li>• with multiple bends / minimum permissible</li> </ul>	49 mm
tensile load / maximum	150 N
weight per length	61 kg/km
<b>ambient conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-40 ... +75 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +75 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-40 ... +75 °C
<ul style="list-style-type: none"> <li>• during installation</li> </ul>	-40 ... +60 °C
<ul style="list-style-type: none"> <li>• note</li> </ul>	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-3-24 (Cat. C) and 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> </ul>	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
<ul style="list-style-type: none"> <li>• to grease</li> </ul>	Conditional resistance
<ul style="list-style-type: none"> <li>• to water</li> </ul>	conditional resistance
radiological resistance / to UV radiation	resistant
<b>product features, product functions, product components / general</b>	
product feature	
<ul style="list-style-type: none"> <li>• halogen-free</li> </ul>	No
<ul style="list-style-type: none"> <li>• silicon-free</li> </ul>	Yes
wire length / for Industrial Ethernet	
<ul style="list-style-type: none"> <li>• with 100BaseTX</li> </ul>	100 m
<b>standards, specifications, approvals</b>	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us / CMG / (ETL)us PLTC/ ITC / Sun 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> </ul>	Yes
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>	Yes
standard for structured cabling	Cat5e
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No
<ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Det Norske Veritas (DNV)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Germanische Lloyd (GL)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Polski Rejestr Statkow (PRS)</li> </ul>	No
reference code	
<ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> </ul>	WG
<ul style="list-style-type: none"> <li>• according to IEC 81346-2:2019</li> </ul>	WGB
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to website: Industry Mall</li> </ul>	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
<ul style="list-style-type: none"> <li>• to website: Information and Download Center</li> </ul>	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> </ul>	<a href="https://sie.ag/2QdlxcP">https://sie.ag/2QdlxcP</a>
<ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>• to website: CAX-Download-Manager</li> </ul>	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
<ul style="list-style-type: none"> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
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