

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  
cable designation  
wire length

Standard cable with rigid cores for fast installation  
2YY (ST) CY 2x2x0,64/1,5-100 GN SF/UTP  
500 m

### electrical data

attenuation factor per length	
<ul style="list-style-type: none"> <li>at 10 MHz / maximum</li> <li>at 100 MHz / maximum</li> </ul>	0.052 dB/m 0.195 dB/m
impedance	
<ul style="list-style-type: none"> <li>at 1 MHz ... 100 MHz</li> </ul>	100 Ω
relative symmetrical tolerance	
<ul style="list-style-type: none"> <li>of the characteristic impedance at 1 MHz ... 100 MHz</li> </ul>	15 %
near-end crosstalk per length	
<ul style="list-style-type: none"> <li>at 1 MHz ... 100 MHz</li> </ul>	0.5 dB/m
transfer impedance per length / at 10 MHz	10 mΩ/m
loop resistance per length / maximum	115 mΩ/m
operating voltage	
<ul style="list-style-type: none"> <li>RMS value</li> </ul>	80 V
NVP value in percent	66 %

### 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	
<ul style="list-style-type: none"> <li>of AWG22 insulated conductor</li> </ul>	0.64 mm
outer diameter	
<ul style="list-style-type: none"> <li>of inner conductor</li> <li>of the wire insulation</li> <li>of the inner sheath of the cable</li> <li>of cable sheath</li> </ul>	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	
<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>	polyethylene (PE) PVC 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 green
bending radius	

<ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	19.5 mm
tensile load / maximum	49 mm
weight per length	150 N
	61 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> <li>• note</li> </ul>	-40 ... +75 °C -40 ... +75 °C -40 ... +75 °C -40 ... +60 °C
fire behavior	Electrical properties measured at 20 °C, tests according to DIN VDE 0472 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> <li>• to grease</li> <li>• to water</li> </ul>	oil resistant according to IEC 60811-2-1 (4 h / 70°C) Conditional resistance 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>• silicon-free</li> </ul>	No Yes
wire length / for Industrial Ethernet	
<ul style="list-style-type: none"> <li>• with 100BaseTX</li> </ul>	100 m

### standards, specifications, approvals

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> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>	Yes Yes 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 No No No No No No
reference code	
<ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> <li>• according to IEC 81346-2:2019</li> </ul>	WG WGB

### further information / internet-Links

Internet-Link	
<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 Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Selection guide for cables and connectors</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<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> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="https://sie.ag/2QdlxcP">https://sie.ag/2QdlxcP</a> <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

**last modified:** 2/3/2023 