

### Product type designation

Product description

### IE FC TP Standard Cable GP 2 x 2 (Type A)

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
<b>Electrical data</b>	
Damping ratio per length	
• at 10 MHz / maximum	0.052 dB/m
• at 100 MHz / maximum	0.195 dB/m
Impedance	
• at 1 MHz ... 100 MHz	100 Ω
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 mΩ/m
Loop resistance per length / maximum	115 mΩ/m
Operating voltage	

• RMS value	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	
• of AWG22 core	0.64 mm
Outer diameter	
• of inner conductor	0.64 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	19.5 mm
• with multiple bends / minimum permissible	49 mm
Tensile load / maximum	150 N
Weight per length	61 kg/km

### Ambient conditions

Ambient temperature	
• during operation	-40 ... +75 °C
• during storage	-40 ... +75 °C
• during transport	-40 ... +75 °C
• during installation	-40 ... +60 °C
• Note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
Burning 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 60811-2-1 (4 h / 70°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
• silicon-free	Yes
Wire length / for Industrial Ethernet	
• with 100BaseTX	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	
• CE marking	Yes
• RoHS conformity	Yes
Standard for structured cabling	Cat5e
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• Bureau Veritas (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

### Further information / Internet-Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
• to website: Industrial communication	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to website: Information and Download Center	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
• to website: Image database	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
• to website: CAx Download Manager	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

**last modified:** 05/07/2020