

Product type designation

Product description

IE FC TP Robust Flexible Cable GP 2 x 2 (Type B)

Flexible bus cable (4-core), sold by the meter, unassembled Industrial Ethernet FastConnect TP robust flexible Cable GP 2x2 (PROFINET Type B), TPE protective jacket, with flexible cores, for connection to FC RJ45 plug and FC outlet RJ45, 4-core, shielded CAT 5, sold by the meter, delivery length max. 1000 m minimum order 20 m



Suitability for use

For occasionally moved machine parts

Cable designation

2YH (ST) C99Y 2x2x0,75/1,5-100 LI GN SF/UTP

Electrical data

Damping ratio per length

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

0.065 dB/m
0.22 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

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	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	0.75 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	FRNC
• of cable sheath	TPE (FR-TPE)
Color	
• of the insulation of data wires	white/yellow/blue/orange
• of cable sheath	green
Bending radius	
• with single bend / minimum permissible	32.5 mm
• with multiple bends / minimum permissible	52 mm
Tensile load / maximum	150 N
Weight per length	68 kg/km

Permitted ambient conditions

Ambient temperature	
• during operation	-40 ... +75 °C
• during storage	-40 ... +75 °C
• during transport	-40 ... +75 °C
• during installation	-20 ... +60 °C
• Note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
Burning behavior	flame resistant according to IEC 60332-1-2
Class of burning behaviour / according to EN 13501-6	Eca
Chemical resistance	
• to mineral oil	oil resistant according to DIN EN 50290-2-22 (VDE 0819), (7x24h/90°C), UL13 Sec.40 (96h/100°C)
• to grease	Conditional resistance

• to water	conditional resistance
Radiological resistance / to UV radiation	resistant
Product properties, functions, components / general	
Product feature	
• halogen-free	No
• silicon-free	Yes
Wire length / for Industrial Ethernet	
• with 100BaseTX	85 m
Standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CM, PLTC, SUN RES
UL/ETL style / 600 V Rating	No
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	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com
last modified:	01/09/2019