

Product type designation

Product description

IE FC TP FRNC Cable GP 2x2 (Type B)

Flexible halogen-free bus cable acc. to IEC 60754-1/2 (4-core), sold by the meter, unassembled

Industrial Ethernet FC TP FRNC GP cable TP installation cable for connection to FC outlet RJ45, 4-core, shielded, CAT 5, sold by the meter, delivery length max. 4000m, minimum order 20m



Suitability for use	For occasionally moved machine parts
Cable designation	L-9YH (ST) CH 2x2x0,34/1,5-100 GN VZN FRNC SF/UTP
Electrical data	
Damping ratio per length	
<ul style="list-style-type: none"> at 10 MHz / maximum at 100 MHz / maximum 	0.06 dB/m 0.22 dB/m
Impedance	
<ul style="list-style-type: none"> at 1 MHz ... 100 MHz 	100 Ω
Relative symmetrical tolerance	
<ul style="list-style-type: none"> of the characteristic impedance at 1 MHz ... 100 MHz 	15 %
Near-end crosstalk per length	
<ul style="list-style-type: none"> at 1 MHz ... 100 MHz 	0.5 dB/m
Transfer impedance per length / at 10 MHz	10 mΩ/m
Loop resistance per length / maximum	120 mΩ/m
Operating voltage	
<ul style="list-style-type: none"> RMS value 	80 V

NVP value in percent	66 %
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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"> • of AWG22 core 	0.75 mm
Outer diameter <ul style="list-style-type: none"> • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath 	0.75 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"> • of the wire insulation • of the inner sheath of the cable • of cable sheath 	PP FRNC FRNC
Color <ul style="list-style-type: none"> • of the insulation of data wires • of cable sheath 	white/yellow/blue/orange green
Bending radius <ul style="list-style-type: none"> • with single bend / minimum permissible • with multiple bends / minimum permissible 	39 mm 97.5 mm
Tensile load / maximum	150 N
Weight per length	68 kg/km

Ambient conditions

Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport • during installation • Note 	-25 ... +70 °C -40 ... +75 °C -40 ... +75 °C 0 ... 50 °C Electrical properties measured at 20 °C, tests according to DIN VDE 0472
Burning behavior	flame resistant according to IEC 60332-3-22 (Category A/F), IEC 61034
Class of burning behaviour / according to EN 13501-6	Eca
Chemical resistance <ul style="list-style-type: none"> • to mineral oil • to grease 	oil resistant according to IEC 60811-2-1 (4 h / 70°C) Conditional resistance

• to water	conditional resistance
Radiological resistance / to UV radiation	resistant

Product features, product functions, product components / general

Product feature	
• halogen-free	Yes
• silicon-free	Yes
Wire length / for Industrial Ethernet	
• with 100BaseTX	85 m

Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; c(UL)us, CMG / PLTC / Sun Res / OIL 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

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