

### Product type designation

Product description

### IE FC TP Marine Cable 2 x 2 (Type B)

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

Industrial Ethernet FC TP Marine Cable, TP installation cable for connection to FC outlet RJ45, shipbuilding certified, 4-core, shielded CAT 5, sold by the meter, delivery unit max. 1000 m, minimum order 20 m



Suitability for use	For marine and offshore use
Cable designation	L-9YH (ST) CH 2 x 2 x 0,34/1,5-100 GN VZN FRNC SF/UTP
<b>Electrical data</b>	
Damping ratio per length	
• at 10 MHz / maximum	0.06 dB/m
• at 100 MHz / maximum	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	10 mΩ/m
Loop resistance per length / maximum	120 mΩ/m
Operating voltage	
• 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"> <li>• of AWG22 core</li> </ul>	0.75 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>	0.75 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"> <li>• of the wire insulation</li> <li>• of the inner sheath of the cable</li> <li>• of cable sheath</li> </ul>	PP FRNC FRNC
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>	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"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> <li>• Note</li> </ul>	-25 ... +70 °C -40 ... +85 °C -40 ... +85 °C 0 ... 50 °C Electrical properties measured at 20 °C, tests according to DIN VDE 0472
Ambient condition / for operation	Temperature range for permanent installation -40 °C to 85 °C
Burning behavior	flame resistant according to IEC 60332-3-22 (Category A/F), smoke density according to IEC 61034-1/2
Class of burning behaviour / according to EN 13501-6	Eca
Chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> </ul>	conditional resistance, IEC 60811-2-1 (4 hours / 70 °C)

<ul style="list-style-type: none"> <li>• to grease</li> <li>• to water</li> </ul>	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>	Yes Yes
Wire length / for Industrial Ethernet	
<ul style="list-style-type: none"> <li>• with 100BaseTX</li> </ul>	85 m

### Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; cULus / CMG / PLTC / Sun Res
UL/ETL style / 600 V Rating	No
Certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>	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>• Bureau Veritas (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>	Yes Yes Yes Yes Yes No No

### Further information / Internet-Links

Internet-Link	
<ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET 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: Image database</li> <li>• to website: CAx Download Manager</li> <li>• to website: Industry Online Support</li> </ul>	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</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="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>

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