

product type designation

product description



IE FC TP Marine Cable 2x2 (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, Cat5e, sold by the meter, delivery unit max. 1000 m, minimum order quantity 20 m.

product brand name

SIMATIC NET

Technical Product Detail Page

<https://i.siemens.com/1P6XV1840-4AH10>

suitability for use

For marine and offshore use

cable designation

SF/UTP, L-9YH (ST) CH 2x2x0,34/1,5-100 GN VZN FRNC

wire length

sold by the meter

electrical data

attenuation factor per length

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

0.06 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

5 %

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

69 %

mechanical data

number of electrical cores

4

design of the shield

SF/UTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires

type of electrical connection / FastConnect

Yes

core diameter

- of AWG22 insulated conductor

0.75 mm

outer diameter

- 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

- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

PP
FRNC
FRNC

color	
• of the insulation of data wires	white/yellow/blue/orange
• of cable sheath	green
bending radius	
• with single bend / minimum permissible	39 mm
• with multiple bends / minimum permissible	97.5 mm
tensile load / maximum	150 N
weight per length	68 kg/km
ambient conditions	
ambient temperature	
• during operation	-25 ... +70 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
• during installation	0 ... 50 °C
• note	electrical properties measured at 20 °C
ambient condition / for operation	Temperature range for permanent installation -40 °C to 85 °C
fire 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	
• to mineral oil	conditional resistance, IEC 60811-2-1 (4 hours / 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	Yes
• PoE capability	Yes
• PoE+ capability	Yes
• silicon-free	Yes
wire length / for Industrial Ethernet	
• with 100BaseTX	85 m
test voltage	
• at AC / core-to-core	2000 V
• at AC / core shield	2000 V
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	
• EAC approval	Yes
• CE marking	Yes
• RoHS conformity	Yes
standard for structured cabling	Cat5e
• resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• French marine classification society (BV)	Yes
• Det Norske Veritas (DNV)	Yes
• Germanische Lloyd (GL)	No
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (NK)	No
• Polski Rejestr Statkow (PRS)	Yes
• Royal Institution of Naval Architects (RINA)	Yes
further information / internet links	
internet link	
• to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud

- to web page: SiePortal
- to website: Image database
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://sieportal.siemens.com/>
<https://www.automation.siemens.com/bilddb>
<https://www.siemens.com/cax>
<https://support.industry.siemens.com>

security information

security information

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Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)

General Product Approval

Test Certificates

Maritime application

[Fire safety / Physical security](#)



[Declaration of Conformity](#)

[Special Test Certificate](#)



Maritime application

Environment



[Environmental Conformations](#)

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Industrial Communication



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