

product type designation

product description

ITP FRNC Cable GP for Industrial Ethernet

Halogen-free industrial twisted pair cable (4-core), sold by the meter, unassembled

ITP FRNC cable for industrial Ethernet CAT5; 2x2-wire, halogen-free
Installation instructions for on-site assembly of connector, non-assembled, sold by the meter minimum order quantity 20 m max. 1000 m.



suitability for use

Used in the construction of Industrial Twisted Pair (ITP) networks

cable designation

J-02YSCH 2x2x0,64/1,5 PIMF F GN FRNC

electrical data

attenuation factor per length

- at 10 MHz / maximum
- at 100 MHz / maximum
- at 300 MHz / maximum

0.057 dB/m

0.18 dB/m

0.31 dB/m

impedance

- at 1 MHz ... 100 MHz
- at 100 MHz ... 300 MHz

100 Ω

100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz
- of the characteristic impedance at 100 MHz ... 300 MHz

15 %

45 %

transfer impedance per length / at 10 MHz

2 mΩ/m

loop resistance per length / maximum

124 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

- RMS value

165 V

mechanical data

number of electrical cores

4

design of the shield

Overlapped aluminum-clad foil (for each core), sheathed in an overall braided shield of tin-plated copper wires

core diameter

- of AWG22 insulated conductor

0.64 mm

outer diameter

- of inner conductor
- of the wire insulation

0.64 mm

1.5 mm

width / of cable sheath

9.4 mm

symmetrical tolerance of width / of cable sheath

0.5 mm

thickness / of cable sheath

6 mm

symmetrical tolerance of thickness / of cable sheath

0.5 mm

material

- of the wire insulation
- of cable sheath

polyethylene (PE)

FRNC

color

<ul style="list-style-type: none"> • of the insulation of data wires • of cable sheath 	white/blue, white/orange green
bending radius	
<ul style="list-style-type: none"> • with single bend / minimum permissible • with multiple bends / minimum permissible 	60 mm 90 mm
tensile load / maximum	80 N
weight per length	98 kg/km
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport • during installation 	-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -25 ... +80 °C
fire behavior	flame resistant according to IEC 60332-3-23 (Category B) and IEC 60332-3-24 (Category C)
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
radiological resistance / to UV radiation	conditional resistance
product features, product functions, product components / general	
product feature	
<ul style="list-style-type: none"> • halogen-free • silicon-free 	Yes Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; CMG / CL3 / Sun Res
UL/ETL style / 600 V Rating	No
certificate of suitability	
<ul style="list-style-type: none"> • EAC approval • CE marking 	Yes Yes
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) 	No No No No No No No
reference code	
<ul style="list-style-type: none"> • according to IEC 81346-2 • according to IEC 81346-2:2019 	WG WGB
further information / internet-Links	
Internet-Link	
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Selection guide for cables and connectors • to website: Image database • to website: CAx-Download-Manager • to website: Industry Online Support 	http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP http://automation.siemens.com/bilddb http://www.siemens.com/cax https://support.industry.siemens.com
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