

product type designation

product description

IE TP Cord RJ45/RJ45, 4x2

Patch cable, preferred length, preassembled with two RJ45 connectors (10/100/1000/10000MB)

Industrial Ethernet TP cord RJ45/RJ45, Cat6a, S/FTP cable 4x2, pre-assembled with 2 RJ45 connectors, length 25 m.



product brand name

Technical Product Detail Page

suitability for use

cable designation

wire length

SIMATIC NET

<https://i.siemens.com/1P6XV1870-3QN25>

Easy connection of terminal devices to the IE FC cabling system

S/FTP, LI 02YSCH 4x2x0,15 PIMF GN FRNC

25 m

electrical data

number of electrical connections

attenuation factor per length

- at 10 MHz / maximum
- at 100 MHz / maximum
- at 300 MHz / maximum
- at 600 MHz / maximum

2

0.086 dB/m
0.28 dB/m
0.501 dB/m
0.735 dB/m

impedance

- at 1 MHz ... 100 MHz
- at 10 MHz ... 600 MHz

100 Ω
100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz
- of the characteristic impedance at 10 MHz ... 600 MHz

15 %
10 %

coupling loss / at 30 MHz ... 100 MHz / minimum

70 dB

transfer impedance per length / at 10 MHz

10 mΩ/m

loop resistance per length / maximum

290 mΩ/m

operating voltage

- RMS value

80 V

NVP value in percent

80 %

mechanical data

number of electrical cores

design of the shield

core diameter

- of AWG26 insulated conductor

outer diameter

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

8

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

0.5 mm

0.5 mm
1 mm
6.2 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

- of the wire insulation

polyethylene (PE)

• of cable sheath	FRNC
color	
• of the insulation of data wires	white/blue, white/orange, white/green, white/brown
• of cable sheath	green
bending radius	
• with single bend / minimum permissible	31 mm
• with multiple bends / minimum permissible	43.5 mm
weight per length	50 kg/km
plug	
connector type	RJ45
type of plug interlock	latched
design of plug-in connection	RJ45-180
ambient conditions	
ambient temperature	
• during operation	-25 ... +80 °C
• during storage	-25 ... +80 °C
• during transport	-25 ... +80 °C
• during installation	-25 ... +80 °C
• note	In fixed installation -40 °C to 80 °C
fire behavior	flame resistant acc. to IEC 60332-1-2, EN 60332-3-24, smoke density acc. to IEC 61034
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
• to grease	Conditional resistance
radiological resistance / to UV radiation	not resistant
protection class IP	IP20
product features, product functions, product components / general	
product feature	
• halogen-free	Yes; halogen-free according to EN 60754-2
• PoE capability	Yes
• PoE+ capability	Yes
• PoE++ capability	Yes
• silicon-free	Yes
test voltage	
• at AC / core-to-core	500 V
• at AC / core shield	1500 V
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	Yes; E502506 AWM STYLE 21279, Wiring Harness
certificate of suitability	ISO/IEC 11801-1, IEC 61035
• EAC approval	Yes
• UL approval	Yes
• RoHS conformity	Yes
standard for structured cabling	Cat6A
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (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: 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	https://sieportal.siemens.com/
• to website: Image database	https://www.automation.siemens.com/bilddb

- to website: CAX-Download-Manager
- to website: Industry Online Support

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

security information

security information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement - and continuously maintain - a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)

[Fire safety / Physical security](#)

General Product Approval

Functional Safety

Test Certificates

Industrial Communication



[TUEV](#)

[Manufacturer Declaration](#)

[Special Test Certificate](#)

[PROFINET](#)

last modified:

3/10/2026