

### 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 40 m.



### product brand name

### Technical Product Detail Page

### suitability for use

### cable designation

### wire length

SIMATIC NET

<https://i.siemens.com/1P6XV1870-3QN40>

Easy connection of terminal devices to the IE FC cabling system

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

40 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)

|                                                                                                           |                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• of cable sheath</li> </ul>                                       | FRNC                                                                                                                                    |
| color                                                                                                     |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> </ul>                       | white/blue, white/orange, white/green, white/brown                                                                                      |
| <ul style="list-style-type: none"> <li>• of cable sheath</li> </ul>                                       | green                                                                                                                                   |
| bending radius                                                                                            |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> </ul>                | 31 mm                                                                                                                                   |
| <ul style="list-style-type: none"> <li>• with multiple bends / minimum permissible</li> </ul>             | 43.5 mm                                                                                                                                 |
| weight per length                                                                                         | 50 kg/km                                                                                                                                |
| <b>plug</b>                                                                                               |                                                                                                                                         |
| connector type                                                                                            | RJ45                                                                                                                                    |
| type of plug interlock                                                                                    | latched                                                                                                                                 |
| design of plug-in connection                                                                              | RJ45-180                                                                                                                                |
| <b>ambient conditions</b>                                                                                 |                                                                                                                                         |
| ambient temperature                                                                                       |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>                                      | -25 ... +80 °C                                                                                                                          |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>                                        | -25 ... +80 °C                                                                                                                          |
| <ul style="list-style-type: none"> <li>• during transport</li> </ul>                                      | -25 ... +80 °C                                                                                                                          |
| <ul style="list-style-type: none"> <li>• during installation</li> </ul>                                   | -25 ... +80 °C                                                                                                                          |
| <ul style="list-style-type: none"> <li>• note</li> </ul>                                                  | 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                                                                                       |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• to mineral oil</li> </ul>                                        | oil resistant according to IEC 60811-2-1 (4 h / 70°C)                                                                                   |
| <ul style="list-style-type: none"> <li>• to grease</li> </ul>                                             | Conditional resistance                                                                                                                  |
| radiological resistance / to UV radiation                                                                 | not resistant                                                                                                                           |
| protection class IP                                                                                       | IP20                                                                                                                                    |
| <b>product features, product functions, product components / general</b>                                  |                                                                                                                                         |
| product feature                                                                                           |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• halogen-free</li> </ul>                                          | Yes; halogen-free according to EN 60754-2                                                                                               |
| <ul style="list-style-type: none"> <li>• PoE capability</li> </ul>                                        | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• PoE+ capability</li> </ul>                                       | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• PoE++ capability</li> </ul>                                      | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• silicon-free</li> </ul>                                          | Yes                                                                                                                                     |
| test voltage                                                                                              |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• at AC / core-to-core</li> </ul>                                  | 500 V                                                                                                                                   |
| <ul style="list-style-type: none"> <li>• at AC / core shield</li> </ul>                                   | 1500 V                                                                                                                                  |
| <b>standards, specifications, approvals</b>                                                               |                                                                                                                                         |
| 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                                                                                                              |
| <ul style="list-style-type: none"> <li>• EAC approval</li> </ul>                                          | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• UL approval</li> </ul>                                           | Yes                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>                                       | Yes                                                                                                                                     |
| standard for structured cabling                                                                           | Cat6A                                                                                                                                   |
| Marine classification association                                                                         |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>         | No                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>             | No                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Det Norske Veritas (DNV)</li> </ul>                              | No                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Germanische Lloyd (GL)</li> </ul>                                | No                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>                     | No                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>                              | No                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• Polski Rejestr Statkow (PRS)</li> </ul>                          | No                                                                                                                                      |
| <b>further information / internet links</b>                                                               |                                                                                                                                         |
| internet link                                                                                             |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> </ul> | <a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a> |
| <ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>         | <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>                                                         |
| <ul style="list-style-type: none"> <li>• to web page: SiePortal</li> </ul>                                | <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>                                                             |
| <ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>                            | <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>                                       |

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

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

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

## security information

security information

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## Approvals / Certificates

### General Product Approval



[China RoHS](#)



[Declaration of Con-  
formity](#)

[Fire safety / Physical  
security](#)

[Manufacturer Declara-  
tion](#)

### General Product Approval

### Functional Safety

### Test Certificates

### Industrial Commu- nication



[TUEV](#)

[Manufacturer Declara-  
tion](#)

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cate](#)

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