

### product type designation

product description

### IE TP XP cord RJ45/RJ45, crossed

Crossover patch cable, preferred length, preassembled with two RJ45 connectors (10/100MB)

Industrial Ethernet TP XP Cord RJ45/RJ45, TP cord pre-assembled with 2 RJ45 plug, send and receive line crossed, length 6 m.



product brand name

SIMATIC NET

Technical Product Detail Page

<https://i.siemens.com/1P6XV1850-2HH60>

suitability for use

Easy connection of terminal devices to the IE FC cabling system

cable designation

LI 02YSCY 2x2x0,15/0,98 PIMF ICCS GN

wire length

6 m

### electrical data

number of electrical connections

2

attenuation factor per length

|                        |            |
|------------------------|------------|
| • at 10 MHz / maximum  | 0.09 dB/m  |
| • at 100 MHz / maximum | 0.285 dB/m |
| • at 300 MHz / maximum | 0.495 dB/m |
| • at 600 MHz / maximum | 0.75 dB/m  |

impedance

|                         |       |
|-------------------------|-------|
| • at 1 MHz ... 100 MHz  | 100 Ω |
| • at 10 MHz ... 600 MHz | 100 Ω |

relative symmetrical tolerance

|                                                         |      |
|---------------------------------------------------------|------|
| • of the characteristic impedance at 1 MHz ... 100 MHz  | 15 % |
| • of the characteristic impedance at 10 MHz ... 600 MHz | 6 %  |

transfer impedance per length / at 10 MHz

10 mΩ/m

loop resistance per length / maximum

300 mΩ/m

insulation resistance coefficient

150 GΩ·m

operating voltage

|             |      |
|-------------|------|
| • RMS value | 80 V |
|-------------|------|

### 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

core diameter

|                                |         |
|--------------------------------|---------|
| • of AWG26 insulated conductor | 0.48 mm |
|--------------------------------|---------|

outer diameter

|                          |         |
|--------------------------|---------|
| • of inner conductor     | 0.48 mm |
| • of the wire insulation | 0.98 mm |

width / of cable sheath

5.8 mm

symmetrical tolerance of width / of cable sheath

0.2 mm

thickness / of cable sheath

3.7 mm

symmetrical tolerance of thickness / of cable sheath

0.2 mm

material

|                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• of the wire insulation</li> <li>• of cable sheath</li> </ul>                                                                                                                                                                                                                                                                                   | polyethylene (PE)<br>PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| color <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>                                                                                                                                                                                                                                                                    | white/blue, white/orange<br>green                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| bending radius <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>                                                                                                                                                                                                                          | 24 mm<br>42 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| weight per length                                                                                                                                                                                                                                                                                                                                                                       | 32 kg/km                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ambient conditions</b>                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> </ul>                                                                                                                                                                                                           | -40 ... +70 °C<br>-40 ... +70 °C<br>-40 ... +70 °C<br>-40 ... +70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| fire behavior                                                                                                                                                                                                                                                                                                                                                                           | flame resistant according to IEC 60332-2-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> </ul>                                                                                                                                                                                                                                                                             | oil resistant according to IEC 60811-2-1 (4 h / 70°C)<br>Conditional resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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> <li>• silicon-free</li> </ul>                                                                                                                                                                                                                                                                                | No<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>standards, specifications, approvals</b>                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| UL/ETL listing / 300 V Rating                                                                                                                                                                                                                                                                                                                                                           | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UL/ETL style / 600 V Rating                                                                                                                                                                                                                                                                                                                                                             | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| certificate of suitability <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• UL approval</li> </ul>                                                                                                                                                                                                                                                                      | Yes<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| standard for structured cabling                                                                                                                                                                                                                                                                                                                                                         | Cat5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Marine classification association <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (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> | No<br>No<br>No<br>No<br>No<br>No<br>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> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</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><br><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a><br><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a><br><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a><br><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>security information</b>                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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 <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . 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



[China RoHS](#)



[Declaration of Con-  
formity](#)

[Fire safety / Physical  
security](#)

[Manufacturer Declara-  
tion](#)

|                          |                   |                          |
|--------------------------|-------------------|--------------------------|
| General Product Approval | Test Certificates | Industrial Communication |
|--------------------------|-------------------|--------------------------|



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ate](#)

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