

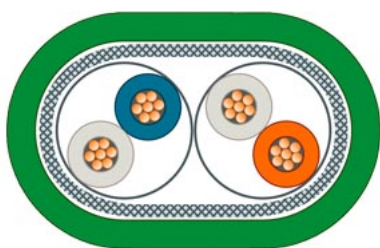
### product type designation

### product description

### IE TP XP Cord 9/RJ45, 2x2

Crossover patch cable, preferred length, preassembled with one 9-pole D-sub connector and one RJ45 connector

Industrial Ethernet TP XP Cord 9/RJ45, TP cord pre-assembled with 1x RJ45 connector and 1x 9-pole ITP connector send and receive line crossed, Length 2 m.



### 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

2 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

|                          |                   |
|--------------------------|-------------------|
| • of the wire insulation | polyethylene (PE) |
| • of cable sheath        | 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 DIN VDE 0472, part 804, test type B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| reference code                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> <li>• according to IEC 81346-2:2019</li> </ul>                                                                                                                                                                                                                                                                                                                           | WG<br>WGB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>further information / internet links</b>                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| internet link                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Selection guide for cables and connectors</li> <li>• to website: Image database</li> <li>• to website: CAX-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul> | <a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a><br><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a><br><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a><br><a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a><br><a href="https://sie.ag/2QdIxcP">https://sie.ag/2QdIxcP</a><br><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |

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