

### product description

Robust, flexible connection cable (4-core), preferred length, preassembled with two 4-pole M12 connectors (D-coded)

IE Robust Connecting Cable M12-180/M12-180, IP69, pre-assembled IE FC Robust Food cable GP 2x2, with 2 M12 plugs (D-coded) length 2.0 m.



### suitability for use

For connecting Industrial Ethernet stations with degree of protection IP65/67/69. Cable with FEP jacket (fluorinated plastic, perfluoroethylene propylene) for use in the food, beverages and tobacco industries (IP69 resistant). Line is water-repellent, weather-proof, resistant to microbes, and extremely resistant to many cleaning agents and disinfectants (such as hypochlorite, chlorine dioxide, peroxyacetic acid, and quaternary ammonium cations).

### cable designation

2YY(ST)CY6Y 2X2X0.75/1.55 LI VZN

### wire length

2 m

### electrical data

#### number of electrical connections

2

#### attenuation factor per length

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

0.095 dB/m  
0.32 dB/m

#### impedance

- at 1 MHz ... 100 MHz

100 Ω

#### relative symmetrical tolerance

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

5 %

#### near-end crosstalk per length

- at 1 MHz ... 100 MHz

0.353 dB/m

#### transfer impedance per length / at 10 MHz

80 mΩ/m

#### loop resistance per length / maximum

120 mΩ/m

#### operating voltage

- RMS value

80 V

#### NVP value in percent

69 %

### 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

#### type of electrical connection / FastConnect

Yes

#### core diameter

- of AWG22 insulated conductor

0.75 mm

#### outer diameter

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

0.75 mm  
1.56 mm  
4 mm  
6.5 mm

#### symmetrical tolerance of the outer diameter / of cable sheath

0.2 mm

#### material

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

polyethylene (PE)  
PVC

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• of cable sheath</li> </ul>   | PVC/FEP; FEP transparent   |
| color   |  |
| <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>  | white/yellow/blue/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> <li>• with continuous bending</li> </ul>  | 26 mm<br>52 mm<br>100 mm   |
| number of bending cycles  | 1000000; Acceleration 4 m/s <sup>2</sup>   |
| number of torsion cycles / with torsion by $\pm 180^\circ$ on 1 m cable length  | 1000000  |
| tensile load / maximum  | 150 N  |
| weight per length   | 72 kg/km   |
| <b>plug</b>   |  |
| type of plug interlock  | screwed  |
| design of plug-in connection  | M12-180  |
| connector coding  | M12  |
| <ul style="list-style-type: none"> <li>• of the M12 circular connector</li> </ul>   | D-coded  |
| <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> <li>• note</li> </ul>   | -40 ... +80 °C<br>-40 ... +80 °C<br>-40 ... +80 °C<br>-40 ... +80 °C<br>Electrical properties measured at 20 °C, tests according to DIN VDE 0472   |
| fire behavior   | flame resistant according to IEC 60332-1-2   |
| chemical resistance   |  |
| <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>   | oil resistant according to IEC 60811-404 (7x24h/90°C)<br>Conditional resistance<br>resistant   |
| radiological resistance / to UV radiation   | resistant  |
| protection class IP   | IP65/67/69   |
| <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   | Yes; c(ETL)us 3047254 CMG FT4 75°C   |
| UL/ETL style / 600 V Rating   | Yes; AWM 22162 AWM I A/B 80°C 600V FT2   |
| certificate of suitability  | UL 2238  |
| <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>   | Yes<br>Yes<br>Yes  |
| standard for structured cabling   | Cat5e  |
| 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 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> </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> |

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

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## security information

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General Product Approval

Environment



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