

### Product type designation

Product description

### IE Connecting Cable M12-180/M12-180

Flexible plug-in cable (4-core), preferred length, preassembled with two 4-pole M12 connectors (D-coded)  
SIMATIC NET, IE CONNECTING CABLE M12-180/M12-180, PREASSEMBLED IE FC TRAILING CABLE GP, WITH 2 M12 CONNECTORS (D-CODED), LENGTH 2.0 M



### Suitability for use

For connecting Industrial Ethernet stations (e.g. SIMATIC ET200pro and SCALANCE X208PRO) to IP 65/67 degree of protection

### Cable designation

2YY (ST) CY 2x2x0,75/1,5-100 LI GN

### Cable length

2 m

## Electrical data

### Damping ratio per length

- at 10 MHz / maximum 0.063 dB/m
- at 100 MHz / maximum 0.213 dB/m

### Impedance

- at 1 MHz ... 100 MHz 100  $\Omega$

### Relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz 5 %

### Near-end crosstalk per length

- at 1 MHz ... 100 MHz 0.5 dB/m

### Transfer impedance per length / at 10 MHz

20 m $\Omega$ /m

### Loop resistance per length / maximum

120 m $\Omega$ /m

### Operating voltage

- RMS value 100 V

### NVP value in percent

66 %

## 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 <ul style="list-style-type: none"> <li>• of AWG22 core</li> </ul>	0.75 mm
Outer diameter <ul style="list-style-type: none"> <li>• of inner conductor</li> <li>• of the wire insulation</li> <li>• of the inner sheath of the cable</li> <li>• of cable sheath</li> </ul>	0.75 mm 1.5 mm 3.9 mm 6.5 mm
Symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
Material <ul style="list-style-type: none"> <li>• of the wire insulation</li> <li>• of the inner sheath of the cable</li> <li>• of cable sheath</li> </ul>	PE PVC PVC
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 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>	32.5 mm 49 mm 100 mm
Number of bending cycles	3000000; drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s <sup>2</sup>
Tensile load / maximum	150 N
Weight per length	68 kg/km

### Permitted ambient conditions

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>	-25 ... +75 °C -25 ... +75 °C -25 ... +75 °C -10 ... +60 °C electrical properties measured at 20 Cel, tests according to DIN VDE 0472
Burning behavior	flame resistant according to UL 1685 (CSA FT 4)
Chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> </ul>	Conditional resistance Conditional resistance
Radiological resistance / to UV radiation	resistant
Protection class IP	IP65, IP67

### Product properties, functions, components / general

Product property	
<ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>	<p>No</p> <p>Yes</p>

### Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes
UL/ETL style / 600 V Rating	Yes
Certificate of suitability	
<ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>	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>• Bureau Veritas (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>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>

### Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET 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: Image database</li> <li>• to website: CAx Download Manager</li> <li>• to website: Industry Online Support</li> </ul>	<p><a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a></p> <p><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a></p> <p><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a></p> <p><a href="http://www.siemens.com/automation/net/catalog">http://www.siemens.com/automation/net/catalog</a></p> <p><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a></p> <p><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a></p> <p><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></p>

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