

### product type designation

product description

### IE Connecting Cable IE FC RJ45-180 / IE FC RJ45-180

Flexible plug-in cable (8-wire), preferred length, prefabricated with two IE FC RJ45 connectors 4X2

IE connecting cable IE FC RJ45 Plug-180/IE FC RJ45 Plug-180; IE FC flexible GP 4x2 cable Pre-assembled with 2x IE FC RJ45 plug 180 4 x 2 length 5.0 m



suitability for use

For connecting Industrial Ethernet stations with an RJ45 interface (10/100/1000/10000Mbps)

wire length

5 m

### electrical data

number of electrical connections

2

attenuation factor per length

• at 10 MHz / maximum	0.089 dB/m
• at 100 MHz / maximum	0.287 dB/m
• at 250 MHz / maximum	0.466 dB/m
• at 300 MHz / maximum	0.514 dB/m
• at 500 MHz / maximum	0.679 dB/m

impedance

• at 1 MHz ... 100 MHz	100 Ω
------------------------	-------

near-end crosstalk per length

• at 1 MHz ... 100 MHz	0.453 dB/m
• at 1 MHz ... 250 MHz	0.393 dB/m
• at 1 MHz ... 300 MHz	0.381 dB/m
• at 1 MHz ... 500 MHz	0.348 dB/m

transfer impedance per length / at 10 MHz

20 mΩ/m

loop resistance per length / maximum

180 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

• RMS value	80 V
-------------	------

NVP value in percent

68 %

### mechanical data

number of electrical cores

8

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 AWG24 insulated conductor	0.51 mm
--------------------------------	---------

outer diameter

• of inner conductor	0.6 mm
• of the wire insulation	1.05 mm
• of the inner sheath of the cable	6.4 mm
• of cable sheath	8 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>	<p>polyethylene (PE) FRNC PVC</p>
<p>color</p> <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>	<p>white-blue/blue, white-orange/orange, white-green/green, white-brown/brown green</p>
<p>bending radius</p> <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	<p>24 mm 40 mm</p>
<p>tensile load / maximum</p>	<p>100 N</p>
<p>weight per length</p>	<p>86 kg/km</p>
<b>ambient conditions</b>	
<p>ambient temperature</p> <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> </ul>	<p>-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C</p>
<p>fire behavior</p>	<p>flame resistant according to IEC 60332-3-24 (Category C)</p>
<p>chemical resistance</p> <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>	<p>oil resistant according to IEC 60811-2-1 (4 h / 70°C) Conditional resistance conditional resistance</p>
<p>radiological resistance / to UV radiation</p>	<p>resistant</p>
<b>product features, product functions, product components / general</b>	
<p>product feature</p> <ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>	<p>No Yes</p>
<p>wire length / for Industrial Ethernet</p> <ul style="list-style-type: none"> <li>• with 100BaseTX</li> <li>• with 1000BaseT</li> <li>• for 10GBase T</li> </ul>	<p>80 m 80 m 70 m</p>
<b>standards, specifications, approvals</b>	
<p>UL/ETL listing / 300 V Rating</p>	<p>Yes; c(ETL)us, CMG, wiring harness</p>
<p>UL/ETL style / 600 V Rating</p>	<p>No</p>
<p>certificate of suitability</p> <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>	<p>Yes Yes Yes</p>
<p>product conformity</p> <ul style="list-style-type: none"> <li>• ANSI/TIA-EIA 568-B.2 Cat.5e</li> <li>• IEC 61784-5-2-CP 2/2 (Ethernet/IP)</li> </ul>	<p>Yes Yes</p>
<p>standard for structured cabling</p>	<p>Cat6A, class EA</p>
<p>Marine classification association</p> <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>	<p>No No No No No No No</p>
<p>reference code</p> <ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> <li>• according to IEC 81346-2:2019</li> </ul>	<p>WG WGB</p>
<b>further information / internet links</b>	
<p>internet link</p> <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> </ul>	<p><a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a> <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="https://sie.ag/2QdlxcP">https://sie.ag/2QdlxcP</a></p>

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

<http://automation.siemens.com/bilddb>

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

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

**last modified:**

5/28/2023 