

### 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 3.0 m



Suitability for use	For connecting Industrial Ethernet stations with an RJ45 interface (10/100/1000/10000Mbps)
Wire length	3 m
<b>Electrical data</b>	
Damping ratio per length	
<ul style="list-style-type: none"> <li>• at 10 MHz / maximum</li> <li>• at 100 MHz / maximum</li> <li>• at 250 MHz / maximum</li> <li>• at 300 MHz / maximum</li> <li>• at 500 MHz / maximum</li> </ul>	0.089 dB/m 0.287 dB/m 0.466 dB/m 0.514 dB/m 0.679 dB/m
Impedance	
<ul style="list-style-type: none"> <li>• at 1 MHz ... 100 MHz</li> </ul>	100 Ω
Near-end crosstalk per length	
<ul style="list-style-type: none"> <li>• at 1 MHz ... 100 MHz</li> <li>• at 1 MHz ... 250 MHz</li> <li>• at 1 MHz ... 300 MHz</li> </ul>	0.453 dB/m 0.393 dB/m 0.381 dB/m

<ul style="list-style-type: none"> <li>• at 1 MHz ... 500 MHz</li> </ul>	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	
<ul style="list-style-type: none"> <li>• RMS value</li> </ul>	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	
<ul style="list-style-type: none"> <li>• of the AWG24 core</li> </ul>	0.51 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>	0.6 mm 1.05 mm 6.4 mm 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>	polyethylene (PE) FRNC PVC
Color	
<ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown 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 40 mm
Tensile load / maximum	100 N
Weight per length	86 kg/km

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> </ul>	-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C
Burning behavior	flame resistant according to IEC 60332-3-24 (Category C)
Chemical resistance	

<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)</p> <p>Conditional resistance</p> <p>conditional resistance</p>
Radiological resistance / to UV radiation	resistant

### Product features, product functions, product components / general

Product feature	
<ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>	<p>No</p> <p>Yes</p>
Wire length / for Industrial Ethernet	
<ul style="list-style-type: none"> <li>• with 100BaseTX</li> <li>• with 1000BaseT</li> <li>• for 10GBase T</li> </ul>	<p>80 m</p> <p>80 m</p> <p>70 m</p>

### Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG
UL/ETL style / 600 V Rating	No
Certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>	<p>Yes</p> <p>Yes</p>
Product conformity	
<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</p> <p>Yes</p>
Standard for structured cabling	Cat6A
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/industry/infocenter">http://www.siemens.com/industry/infocenter</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>

last modified:

05/07/2020