

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 Pre-assembled with 2x IE FC RJ45 plug 180 4 x 2; Length 20 m.



suitability for use

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

wire length

20 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
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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
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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
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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

• of the wire insulation • of the inner sheath of the cable • of cable sheath	polyethylene (PE) FRNC PVC
color • of the insulation of data wires • of cable sheath	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown green
bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible	24 mm 40 mm
tensile load / maximum	100 N
weight per length	86 kg/km
ambient conditions	
ambient temperature • during operation • during storage • during transport • during installation	-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C
fire behavior	flame resistant according to IEC 60332-3-24 (Category C)
chemical resistance • to mineral oil • to grease • to water	oil resistant according to IEC 60811-2-1 (4 h / 70°C) Conditional resistance conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / general	
product feature • halogen-free • silicon-free	No Yes
wire length / for Industrial Ethernet • with 100BaseTX • with 1000BaseT • for 10GBase T	80 m 80 m 70 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG, wiring harness
UL/ETL style / 600 V Rating	No
certificate of suitability • EAC approval • CE marking • RoHS conformity	Yes Yes Yes
product conformity • ANSI/TIA-EIA 568-B.2 Cat.5e • IEC 61784-5-2-CP 2/2 (Ethernet/IP)	Yes Yes
standard for structured cabling	Cat6A, class EA
Marine classification association • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS)	No No No No No No No
reference code • according to IEC 81346-2 • according to IEC 81346-2:2019	WG WGB
further information / internet links	
internet link • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Selection guide for cables and connectors	http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP

- 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>

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