

product type designation

product description

IE Connecting Cable M12-180/M12-180

Flexible plug-in cable (4-wire), preferred length, prefabricated with two 4-pole M12 connectors (D-coded, 180° cable outlet)

Industrial Ethernet connecting Cable M12-180/M12-180 pre-assembled IE FC Trailing Cable GP, with 2 M12 connectors (D-coded) length 1.5 m.



Technical Product Detail Page

<https://i.siemens.com/1P6XV1870-8AH15>

suitability for use

For connecting Industrial Ethernet stations (e.g. SIMATIC ET200 and SCALANCE XP-200) in IP 65/67 degree of protection

cable designation

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

wire length

1.5 m

electrical data

number of electrical connections

2

attenuation factor 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 Ω

relative symmetrical tolerance

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

5 %

near-end crosstalk per length

• at 1 MHz ... 100 MHz

0.5 dB/m

transfer impedance per length / at 10 MHz

20 mΩ/m

loop resistance per length / maximum

120 mΩ/m

operating voltage

• RMS value

80 V

NVP value in percent

66 %

mechanical data

number of electrical cores

4

design of the shield

SF/UTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires

core diameter

• of AWG22 insulated conductor

0.75 mm

outer diameter

• of inner conductor

0.75 mm

• of the wire insulation

1.5 mm

• of the inner sheath of the cable

3.9 mm

• of cable sheath

6.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.2 mm

material

• of the wire insulation

polyethylene (PE)

• of the inner sheath of the cable

PVC

• of cable sheath

PVC

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|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| color | |
| • of the insulation of data wires | white/yellow/blue/orange |
| • of cable sheath | green |
| bending radius | |
| • with single bend / minimum permissible | 32.5 mm |
| • with multiple bends / minimum permissible | 49 mm |
| • with continuous bending | 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 ² |
| tensile load / maximum | 150 N |
| weight per length | 68 kg/km |
| plug | |
| type of plug interlock | screwed |
| design of plug-in connection | M12-180 |
| tightening torque / for M12 round connector / maximum | 0.6 N·m |
| connector coding | M12 |
| • of the M12 circular connector | D-coded |
| ambient conditions | |
| ambient temperature | |
| • during operation | -25 ... +75 °C |
| • during storage | -25 ... +75 °C |
| • during transport | -25 ... +75 °C |
| • during installation | -10 ... +60 °C |
| fire behavior | flame resistant according to UL 1685 (CSA FT 4) |
| chemical resistance | |
| • to mineral oil | conditional resistance |
| • to grease | Conditional resistance |
| radiological resistance / to UV radiation | resistant |
| protection class IP | IP65, IP67 |
| product features, product functions, product components / general | |
| product feature | |
| • halogen-free | No |
| • PoE capability | Yes |
| • PoE+ capability | Yes |
| • silicon-free | Yes |
| standards, specifications, approvals | |
| UL/ETL listing / 300 V Rating | Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL RES |
| UL/ETL style / 600 V Rating | Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2 |
| certificate of suitability | UL 2238 |
| • EAC approval | Yes |
| • CE marking | Yes |
| • RoHS conformity | Yes |
| standard for structured cabling | Cat5e |
| Marine classification association | |
| • American Bureau of Shipping Europe Ltd. (ABS) | No |
| • French marine classification society (BV) | No |
| • Det Norske Veritas (DNV) | No |
| • Germanische Lloyd (GL) | No |
| • Lloyds Register of Shipping (LRS) | No |
| • Nippon Kaiji Kyokai (NK) | No |
| • Polski Rejestr Statkow (PRS) | No |
| further information / internet links | |
| internet link | |
| • to website: Selection guide for cables and connectors | https://support.industry.siemens.com/cs/ww/en/view/109766358 |
| • to web page: selection aid TIA Selection Tool | https://www.siemens.com/tstcloud |
| • to web page: SiePortal | https://sieportal.siemens.com/ |
| • to website: Image database | https://www.automation.siemens.com/bilddb |
| • to website: CAx-Download-Manager | https://www.siemens.com/cax |
| • to website: Industry Online Support | https://support.industry.siemens.com |

security information

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Approvals / Certificates

General Product Approval



[Declaration of Con-
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[Manufacturer Declara-
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| General Product Ap- proval | Industrial Communication |
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