

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 5.0 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

5 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 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 m Ω /m

Loop resistance per length / maximum

120 m Ω /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"> • of AWG22 core 	0.75 mm
Outer diameter <ul style="list-style-type: none"> • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath 	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"> • of the wire insulation • of the inner sheath of the cable • of cable sheath 	PE PVC PVC
Color <ul style="list-style-type: none"> • of the insulation of data wires • of cable sheath 	white / yellow / blue / orange green
Bending radius <ul style="list-style-type: none"> • with single bend / minimum permissible • with multiple bends / minimum permissible • with continuous bending 	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 ²
Tensile load / maximum	150 N
Weight per length	68 kg/km

Permitted ambient conditions

Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport • during installation • Note 	-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"> • to mineral oil • to grease 	Conditional resistance Conditional resistance
Radiological resistance / to UV radiation	resistant
Protection class IP	IP65, IP67

Product properties, functions, components / general

Product property	
• halogen-free	No
• silicon-free	Yes

Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes
UL/ETL style / 600 V Rating	Yes
Certificate of suitability	
• RoHS conformity	Yes
Standard for structured cabling	Cat5e
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• Bureau Veritas (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: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/automation/net/catalog
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

last modified: 13.05.2015