

product type designation

product description

IE Robust Connecting Cable M12-180/M12-180, IP69

Robust, flexible connection cable (4-core), preferred length, preassembled with two 4-pole M12 connectors (D-coded)

IE Robust Connecting Cable M12-180/M12-180, IP69, pre-assembled IE FC Robust Food cable GP 2x2, with 2 M12 plugs (D-coded) length 1 m.



Technical Product Detail Page

<https://i.siemens.com/1P6XV1881-5AH10>

suitability for use

For connecting Industrial Ethernet stations with degree of protection IP65/67/69. Cable with FEP jacket (fluorinated plastic, perfluoroethylene propylene) for use in the food, beverages and tobacco industries (IP69 resistant). Line is water-repellent, weather-proof, resistant to microbes, and extremely resistant to many cleaning agents and disinfectants (such as hypochlorite, chlorine dioxide, peroxyacetic acid, and quaternary ammonium cations).

cable designation

SF/UTP, 2YY(ST)CY6Y 2X2X0.75/1.55 LI VZN

wire length

1 m

electrical data

number of electrical connections

2

attenuation factor per length

- at 10 MHz / maximum
- at 100 MHz / maximum

0.095 dB/m
0.32 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

0.353 dB/m

transfer impedance per length / at 10 MHz

80 mΩ/m

loop resistance per length / maximum

120 mΩ/m

operating voltage

- RMS value

80 V

NVP value in percent

69 %

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

type of electrical connection / FastConnect

Yes

core diameter

- of AWG22 insulated conductor

0.75 mm

outer diameter

- of inner conductor
- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

0.75 mm
1.56 mm
4 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 	polyethylene (PE) PVC PVC/FEP; FEP transparent
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 	26 mm 52 mm 100 mm
number of bending cycles	1000000; Acceleration 4 m/s ²
number of torsion cycles / with torsion by ± 180° on 1 m cable length	1000000
tensile load / maximum	150 N
weight per length	72 kg/km
plug	
type of plug interlock	screwed
design of plug-in connection	M12-180
connector coding <ul style="list-style-type: none"> • of the M12 circular connector 	M12 D-coded
ambient conditions	
ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport • during installation • note 	-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-1-2
chemical resistance <ul style="list-style-type: none"> • to mineral oil • to grease • to water 	oil resistant according to IEC 60811-404 (7x24h/90°C) Conditional resistance resistant
radiological resistance / to UV radiation	resistant
protection class IP	IP65/67/69
product features, product functions, product components / general	
product feature <ul style="list-style-type: none"> • halogen-free • PoE capability • PoE+ capability • silicon-free 	No Yes Yes Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us 3047254 CMG FT4 75°C
UL/ETL style / 600 V Rating	Yes; AWM 22162 AWM I A/B 80°C 600V FT2
certificate of suitability <ul style="list-style-type: none"> • EAC approval • CE marking • RoHS conformity 	UL 2238 Yes Yes Yes
standard for structured cabling	Cat5e
Marine classification association <ul style="list-style-type: none"> • 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
further information / internet links	

internet link

- to website: Selection guide for cables and connectors
- to web page: selection aid TIA Selection Tool
- to web page: SiePortal
- to website: Image database
- to website: CAx-Download-Manager
- to website: Industry Online Support

- <https://support.industry.siemens.com/cs/ww/en/view/109766358>
- <https://www.siemens.com/tstcloud>
- <https://sieportal.siemens.com/>
- <https://www.automation.siemens.com/bilddb>
- <https://www.siemens.com/cax>
- <https://support.industry.siemens.com>

security information

security information

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Approvals / Certificates

General Product Approval



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formity](#)

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Industrial Communication

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