

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 2.0 m.



Technical Product Detail Page

<https://i.siemens.com/1P6XV1881-5AH20>

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

2 m

electrical data

number of electrical connections

2

attenuation factor per length

- at 10 MHz / maximum 0.095 dB/m
- at 100 MHz / maximum 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 0.75 mm
- of the wire insulation 1.56 mm
- of the inner sheath of the cable 4 mm
- of cable sheath 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 	<p>polyethylene (PE)</p> <p>PVC</p> <p>PVC/FEP; FEP transparent</p>
color	
<ul style="list-style-type: none"> of the insulation of data wires of cable sheath 	<p>white/yellow/blue/orange</p> <p>green</p>
bending radius	
<ul style="list-style-type: none"> with single bend / minimum permissible with multiple bends / minimum permissible with continuous bending 	<p>26 mm</p> <p>52 mm</p> <p>100 mm</p>
number of bending cycles	1000000; Acceleration 4 m/s ²
number of torsion cycles / with torsion by $\pm 180^\circ$ 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	M12
<ul style="list-style-type: none"> of the M12 circular connector 	D-coded
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> during operation during storage during transport during installation note 	<p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p> <p>Electrical properties measured at 20 °C, tests according to DIN VDE 0472</p>
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 	<p>oil resistant according to IEC 60811-404 (7x24h/90°C)</p> <p>Conditional resistance</p> <p>resistant</p>
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 	<p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
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 2238
<ul style="list-style-type: none"> EAC approval CE marking RoHS conformity 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
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) 	<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

- 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



[Declaration of Conformity](#)



[Manufacturer Declaration](#)

[China RoHS](#)

Industrial Communication

[PROFINET](#)

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