

### product type designation

product description

### Control connecting cable M12-180/M12-180

Flexible plug-in cable (5-wire), preferred length, pre-assembled with one 5-pin M12 male and one female connector (A-coded, IO-Link Port Class B, 180° cable outlet)

Control connecting cable M12-180/M12-180; 5-core; IO-Link port Class B; pre-assembled with M12 plug and M12 socket (A-coded); straight cable outlet; length 10 m.



Figure similar

suitability for use

Plug-in cable for connecting IO-Link components and sensing mechanisms to IO modules, degree of protection IP 65/67

wire length

10 m

### electrical data

operating voltage / RMS value

300 V

conductor cross section / of the power line

0.4 mm<sup>2</sup>

continuous current / of the power lines

2.5 A

### mechanical data

number of electrical cores

5

type of electrical connection

M12-180

AWG number

24

outer diameter

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

0.7 mm  
1.2 mm  
5.3 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

- of the conductor
- of cable sheath

CU, blank  
PUR

product component / PE connection

No

marking / of cores

Color

color

- of the power line insulation
- of cable sheath

Brown / white / blue / black / gray  
Black

bending radius

- with single bend / minimum permissible
- with multiple bends / minimum permissible

21 mm  
42 mm

tensile load / maximum

10 N

weight per length

40 kg/km

### plug

type of plug interlock

screwed

design of plug-in connection

M12-180

connector coding

M12

connector coding / of the M12 circular connector

A coded

### ambient conditions

ambient temperature

- during operation

-15 ... +80 °C

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> </ul>                                                                                                                                                                                                                                                                                                                                 | -25 ... +80 °C<br>-25 ... +80 °C<br>-15 ... +80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| fire behavior                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Flame-resistant according to IEC 60332-1-2, UL 2556, Sec. 9.3 (FT1), CSA C22.2 No.2556, UL 1581, Sec. 1061 (cable flame)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| class of burning behaviour / according to EN 13501-6                                                                                                                                                                                                                                                                                                                                                                                                          | Fca                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>                                                                                                                                                                                                                                                                                                                               | Conditional resistance<br>Conditional resistance<br>Conditional resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| radiological resistance / to UV radiation                                                                                                                                                                                                                                                                                                                                                                                                                     | sunlight resistant acc. to UL 2556 sec. 4.2.8.5 (720h)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| protection class IP                                                                                                                                                                                                                                                                                                                                                                                                                                           | IP65 / 67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>product features, product functions, product components / general</b>                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| product feature <ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>                                                                                                                                                                                                                                                                                                                                                      | Yes<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>standards, specifications, approvals</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UL/ETL listing / 300 V Rating                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes; UL Style 20233 (80°C/300V) CSA C22.2 No. 210 I/II A/B FT1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| certificate of suitability <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• RoHS conformity</li> </ul>                                                                                                                                                                                                                                                                                                                                        | Yes<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>further information / internet links</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| internet link <ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Selection guide for cables and connectors</li> <li>• to website: Image database</li> <li>• to website: CAX-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul> | <a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a><br><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a><br><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a><br><a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a><br><a href="https://sie.ag/2QdlxcP">https://sie.ag/2QdlxcP</a><br><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |

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