



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

Cable length 5 m

[nicht versorgt: TAK\_ABR691\_001\_000]

|                                               |                  |
|-----------------------------------------------|------------------|
| Damping ratio per length                      |                  |
| • at 10 MHz / maximum                         | 0.063 dB/m       |
| • at 100 MHz / maximum                        | 0.213 dB/m       |
| Impedance                                     |                  |
| • for frequency range 1 MHz ... 100 MHz       | 100 $\Omega$     |
| Relative symmetrical tolerance                |                  |
| • of the surge impedance at 1 MHz ... 100 MHz | 5 %              |
| Near-end crosstalk per length                 |                  |
| • at 1 MHz ... 100 MHz                        | 0.5 dB/m         |
| Transfer impedance / at 10 MHz                | 20 m $\Omega$ /m |
| Loop resistance per length / maximum          | 120 $\Omega$ /km |
| Operating voltage                             |                  |
| • RMS value                                   | 100 V            |

### Mechanical data

|                            |         |
|----------------------------|---------|
| Number of electrical wires | 4       |
| Core diameter              |         |
| • of the AWG22 core        | 0.75 mm |
| Outer diameter             |         |
| • of the inner conductor   | 0.75 mm |

|                                                            |                |
|------------------------------------------------------------|----------------|
| • of the wire insulation                                   | 1.5 mm         |
| • of the inner sheath of the cable                         | 3.9 mm         |
| • of the cable sheath                                      | 6.5 mm         |
| Symmetrical tolerance of outer diameter / of cable sheath  | 0.2 mm         |
| Material                                                   |                |
| • of cable sheath                                          | PVC            |
| 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        |
| Traction stress / maximum                                  | 150 N          |
| Weight per length                                          | 68 kg/km       |
| <b>Permitted ambient conditions</b>                        |                |
| Ambient temperature                                        |                |
| • during operating                                         | -25 ... +75 °C |
| • during storage                                           | -25 ... +75 °C |
| • during transport                                         | -25 ... +75 °C |
| • during installation                                      | -10 ... +60 °C |
| <b>Product properties, functions, components / general</b> |                |
| Product feature                                            |                |
| • halogen-free                                             | No             |
| • [not supplied - silicon-free]                            | Yes            |
| <b>Standards, specifications, approvals</b>                |                |
| Verification of suitability                                |                |
| • RoHS conformity                                          | Yes            |
| 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             |
| <b>letzte Änderung:</b>                                    | Jul 17, 2012   |