

product description

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 2x2, with 2 M12 plugs (D-coded) length 5.0 m.



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

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

wire length

5 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

Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated 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

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

polyethylene (PE)
PVC

<ul style="list-style-type: none"> • of cable sheath 	PVC/FEP; FEP transparent
color	
<ul style="list-style-type: none"> • of the insulation of data wires 	white/yellow/blue/orange
<ul style="list-style-type: none"> • of cable sheath 	green
bending radius	
<ul style="list-style-type: none"> • with single bend / minimum permissible 	26 mm
<ul style="list-style-type: none"> • with multiple bends / minimum permissible 	52 mm
<ul style="list-style-type: none"> • with continuous bending 	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
connector coding	
<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 	-40 ... +80 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +80 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +80 °C
<ul style="list-style-type: none"> • during installation 	-40 ... +80 °C
<ul style="list-style-type: none"> • note 	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 	oil resistant according to IEC 60811-404 (7x24h/90°C)
<ul style="list-style-type: none"> • to grease 	Conditional resistance
<ul style="list-style-type: none"> • to water 	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 	No
<ul style="list-style-type: none"> • silicon-free 	Yes

standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes
UL/ETL style / 600 V Rating	Yes
certificate of suitability	
<ul style="list-style-type: none"> • EAC approval 	Yes
<ul style="list-style-type: none"> • CE marking 	Yes
<ul style="list-style-type: none"> • RoHS conformity 	Yes
standard for structured cabling	Cat5e
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	No
<ul style="list-style-type: none"> • French marine classification society (BV) 	No
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	No
<ul style="list-style-type: none"> • Germanische Lloyd (GL) 	No
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	No
<ul style="list-style-type: none"> • Nippon Kaiji Kyokai (NK) 	No
<ul style="list-style-type: none"> • Polski Rejestr Statkow (PRS) 	No
reference code	
<ul style="list-style-type: none"> • according to IEC 81346-2 	WG
<ul style="list-style-type: none"> • according to IEC 81346-2:2019 	WGB

further information / internet links

internet link	
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool 	http://www.siemens.com/tia-selection-tool
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Selection guide for cables and connectors 	https://sie.ag/2QdlxcP

- to website: Image database
- to website: CAx-Download-Manager
- to website: Industry Online Support

<http://automation.siemens.com/bilddb>
<http://www.siemens.com/cax>
<https://support.industry.siemens.com>

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