

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 GP 2x2, with 2 M12 plugs (D-coded) length 3.0 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	3 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	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	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	
• of the wire insulation	polyethylene (PE)
• of the inner sheath of the cable	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 $\pm 180^\circ$ 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 	-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; 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 	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 website: Selection guide for cables and connectors 	https://support.industry.siemens.com/cs/ww/en/view/109766358
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool 	https://www.siemens.com/tstcloud
<ul style="list-style-type: none"> • to web page: SiePortal 	https://sieportal.siemens.com/
<ul style="list-style-type: none"> • to website: Image database 	https://www.automation.siemens.com/bilddb

- to website: CAX-Download-Manager
- to website: Industry Online Support

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

security information

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