

product type designation

product description

IE Connecting Cable M12-90/M12-90

Flexible plug-in cable (4-wire), preferred length, prefabricated with two 4-pin M12 connectors (D-coded, 90° cable outlet)
IE Connecting Cable M12-90/M12-90, pre-assembled IE FC Trailing Cable GP, with 2 M12 connectors (D-coded) Length 2.0 m



suitability for use	For connecting Industrial Ethernet stations (e.g. SIMATIC ET200 and SCALANCE XP-200) in IP 65/67 degree of protection
cable designation	2YY (ST) CY 2x2x0,75/1,5-100 LI GN
wire length	2 m
electrical data	
damping ratio per length	
• at 10 MHz / maximum	0.063 dB/m
• at 100 MHz / maximum	0.213 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	0.5 dB/m
transfer impedance per length / at 10 MHz	20 mΩ/m
loop resistance per length / maximum	120 mΩ/m

operating voltage	
• RMS value	80 V
NVP value in percent	66 %

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
core diameter	
• of AWG22 core	0.75 mm
outer diameter	
• of inner conductor	0.75 mm
• of the wire insulation	1.5 mm
• of the inner sheath of the cable	3.9 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
• of cable sheath	PVC
color	
• of the insulation of data wires	white/yellow/blue/orange
• of cable sheath	green
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; Drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²
tensile load / maximum	150 N
weight per length	68 kg/km

ambient conditions

ambient temperature	
• during operation	-25 ... +75 °C
• during storage	-25 ... +75 °C
• during transport	-25 ... +75 °C
• during installation	-10 ... +60 °C
• note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
burning behavior	flame resistant according to UL 1685 (CSA FT 4)
chemical resistance	

<ul style="list-style-type: none"> • to mineral oil • to grease 	conditional resistance Conditional resistance
radiological resistance / to UV radiation	resistant
protection class IP	IP65, IP67

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(UL)us, CMG / PLTC / Sun Res / OIL RES
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"> • Bureau Veritas (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

further information / internet-Links

Internet-Link	
<ul style="list-style-type: none"> • to website: Selector SIMATIC NET SELECTION TOOL 	http://www.siemens.com/snst
<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: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx Download Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • to website: Industry Online Support 	https://support.industry.siemens.com

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