

product type designation

product description

IE TP Cord M12-90/M12-90

Flexible plug-in cable (8-wire), preferred length, prefabricated with two IE FC M12 connectors 4X2 (X-coded)

IE TP Cord M12-90/M12-90 Pre-assembled IE Flexible Cable with 2 M12 connectors (X-coded); 90-degree cable outlet; length 2.0 m.



suitability for use

For connecting Industrial Ethernet stations with an M12 interface (e.g. SCALANCE W and XP-200)

wire length

2 m

electrical data

number of electrical connections

2

attenuation factor per length

- at 10 MHz / maximum
- at 100 MHz / maximum
- at 300 MHz / maximum
- at 600 MHz / maximum

0.086 dB/m
0.28 dB/m
0.402 dB/m
0.735 dB/m

impedance

- at 1 MHz ... 100 MHz

100 Ω

near-end crosstalk per length

- at 100 MHz
- at 300 MHz
- at 600 MHz

0.724 dB/m
0.653 dB/m
0.608 dB/m

loop resistance per length / maximum

290 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

- RMS value

80 V

NVP value in percent

68 %

mechanical data

number of electrical cores

8

design of the shield

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

type of electrical connection / FastConnect

No

core diameter

- of AWG26 insulated conductor

0.48 mm

outer diameter

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

1 mm
5.4 mm
6.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

- of the wire insulation
- of cable sheath

polyethylene (PE)
PUR

color

- of the insulation of data wires

white/blue, white/orange, white/green, white/brown

<ul style="list-style-type: none"> • of cable sheath 	green
bending radius	
<ul style="list-style-type: none"> • with single bend / minimum permissible 	32.5 mm
<ul style="list-style-type: none"> • with multiple bends / minimum permissible 	65 mm
tensile load / maximum	100 N
weight per length	45 kg/km
plug	
type of plug interlock	screwed
design of plug-in connection	M12-90
connector coding	M12
<ul style="list-style-type: none"> • of the M12 circular connector 	X-coded
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation 	-30 ... +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
fire behavior	flame resistant according to IEC 60332-1-2, smoke density according to IEC 61034
chemical resistance	
<ul style="list-style-type: none"> • to mineral oil 	oil resistant according to DIN EN 60811-2-1
<ul style="list-style-type: none"> • to grease 	Conditional resistance
<ul style="list-style-type: none"> • to water 	conditional resistance
radiological resistance / to UV radiation	resistant
protection class IP	IP65/67
product features, product functions, product components / general	
product feature	
<ul style="list-style-type: none"> • halogen-free 	Yes
<ul style="list-style-type: none"> • silicon-free 	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; AWM Style 21815
UL/ETL style / 600 V Rating	No
certificate of suitability	ISO/IEC 11801-1, IEC 61035
<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	Cat6A
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
<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

last modified:

11/9/2023 