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Network cable - VS-M12MS-M12MS-93R-LI/2,0

1416254

https://www.phoenixcontact.com/gb/products/1416254

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Network cable, PROFINET CAT5 (100 Mbps), 4-position, Plug straight M12 / IP67, coding: D, on Plug straight M12 / IP67, coding: D, cable length: 2 m

Commercial Data

Item number	1416254
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CJN
Product Key	BF1CJN
Catalog Page	Page 311 (PC-2011)
GTIN	4046356473422
Weight per Piece (including packing)	150.8 g
Weight per Piece (excluding packing)	150.8 g
Customs tariff number	85444210
Country of origin	PL

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Technical Data

Product properties

Product type	Data cable preassembled
Number of positions	4
Application	Standard
No. of cable outlets	1
Shielded	yes

Interfaces

Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Transmission medium	Copper

Connector

Insertion/withdrawal cycles	≥ 100

Connection 1

Type	Plug straight M12 / IP67
Number of positions	4
Coding type	D (Data)
Handle color	black
Degree of protection	IP67

Connection 2

Type	Plug straight M12 / IP67
Number of positions	4
Coding type	D (Data)
Handle color	black

Cable / line

Cable length	2 m
Cable weight	55 kg/km
UL AWM Style	20233 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET robot CAT5 [93R]
Signal runtime	4.8 ns/m
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm²
Wire diameter incl. insulation	1.5 mm

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External cable diameter	6.5 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	White, yellow, blue, orange
Thickness, outer sheath	approx. 1 mm
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	300 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	5 x D
Torsion force	± 180 °/m
Torsion cycles	1000000
Shield attenuation	2.9 dB (with 1 MHz)
	5 dB (at 4 MHz)
	8.1 dB (at 10 MHz)
	10.4 dB (at 16 MHz)
	11.9 dB (at 20 MHz)
	15.5 dB (at 31.25 MHz)
	26.5 dB (at 62.5 MHz)
	41 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C ... 80 °C
	-40 °C ... 80 °C
Ambient temperature (installation)	-20 °C ... 60 °C
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps

Ambient conditions

Degree of protection	IP65
	IP67
Degree of protection	IP65/IP67/IP69K

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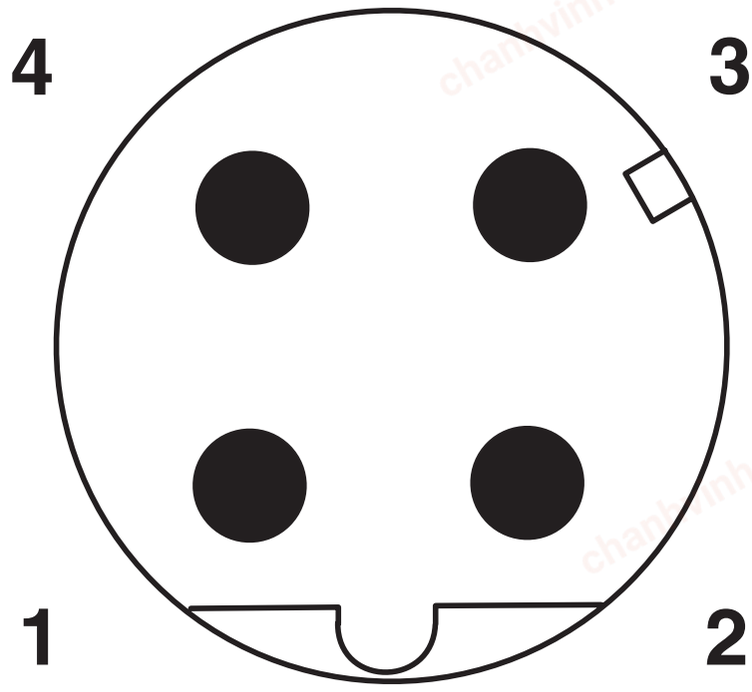
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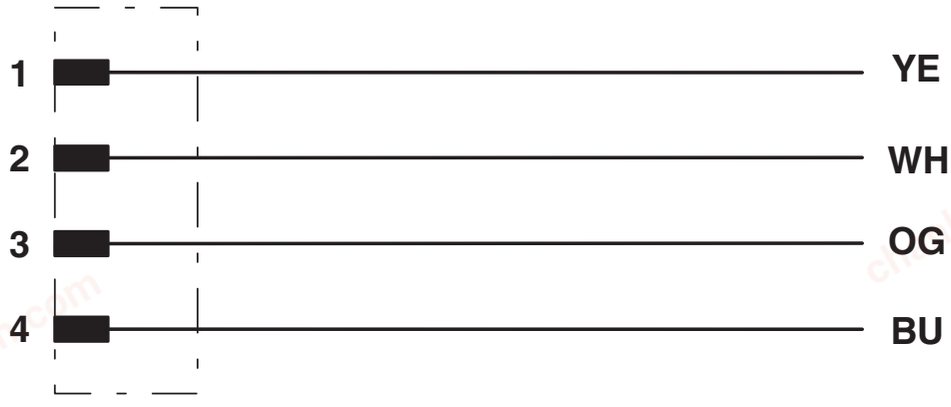
Drawings

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

Circuit diagram



Contact assignment of the M12 connector

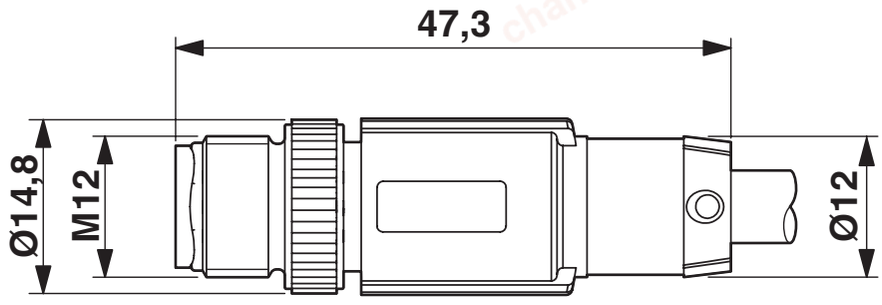
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Dimensional drawing



Plug, M12 x 1, straight, shielded

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Approvals

EAC
Approval ID: RU D-DE.HB35.B.00385

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Classifications

ECLASS

ECLASS-9.0	27060308
ECLASS-10.0.1	27060308
ECLASS-11.0	27060307

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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