

Network cable - VS-M12MS-M12MS-93R-LI/2,0 - 1416254

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Network cable, PROFINET CAT5 (100 Mbps), 4-position, PUR, green RAL 6018, Plug straight M12 / IP67, coding: D, on Plug straight M12 / IP67, coding: D, cable length: 2 m



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356473422

Technical data

Dimensions

Length of cable	2 m
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Ambient conditions

Degree of protection	IP65
	IP67

General data

Rated voltage	48 V AC
	60 V DC
Number of positions	4
Degree of protection	IP65/IP67/IP69K

Characteristics head 1

Coding	D (Data)
Color	black
Shielded	yes
Outer sheath, material	PUR
External sheath, color	green RAL 6018

Characteristics head 2

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Technical data

Characteristics head 2

Coding	D (Data)
Color	black

Cable

Cable type	PROFINET robot CAT5
Cable type (abbreviation)	93R
UL AWM style	20233 (80°C/300 V)
Cable structure	1x4xAWG22/19; S/TQ
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	19x 0.15 mm
Core diameter including insulation	1.5 mm
Wire colors	White, yellow, blue, orange
Overall twist	Star quad
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	green RAL 6018
Outer sheath thickness	approx. 1 mm
External cable diameter D	6.5 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Torsion force	± 180 °/m (1 000 000 torsion cycles)
Cable weight	55 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
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)
Signal runtime	4.8 ns/m
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.)
Flame resistance	according to IEC 60332-1-2

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Technical data

Cable

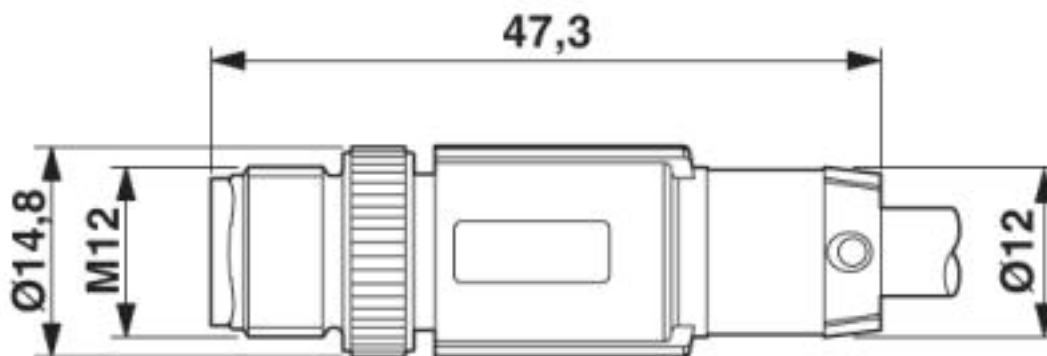
Halogen-free	according to IEC 60754-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C ... 80 °C
	-40 °C ... 80 °C
Ambient temperature (installation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C

Environmental Product Compliance

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

Drawings

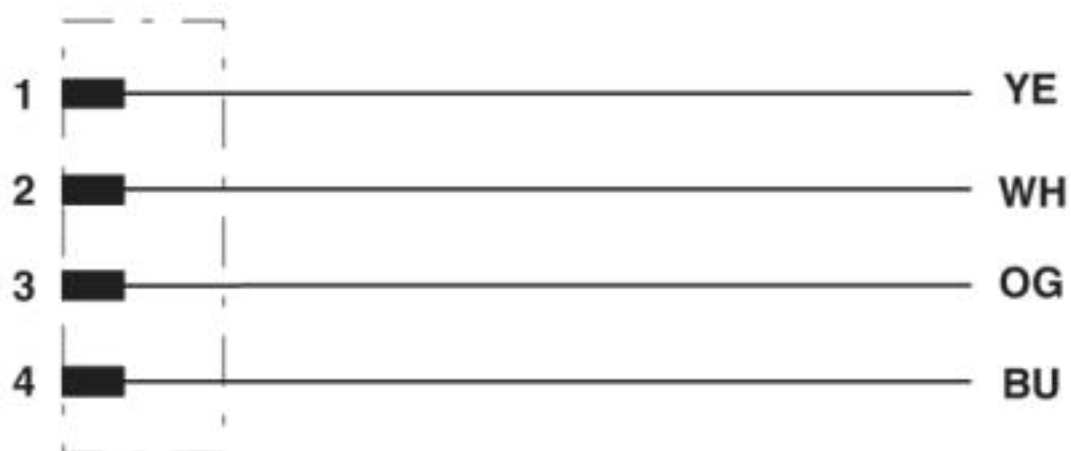
Dimensional drawing



Plug, M12 x 1, straight, shielded

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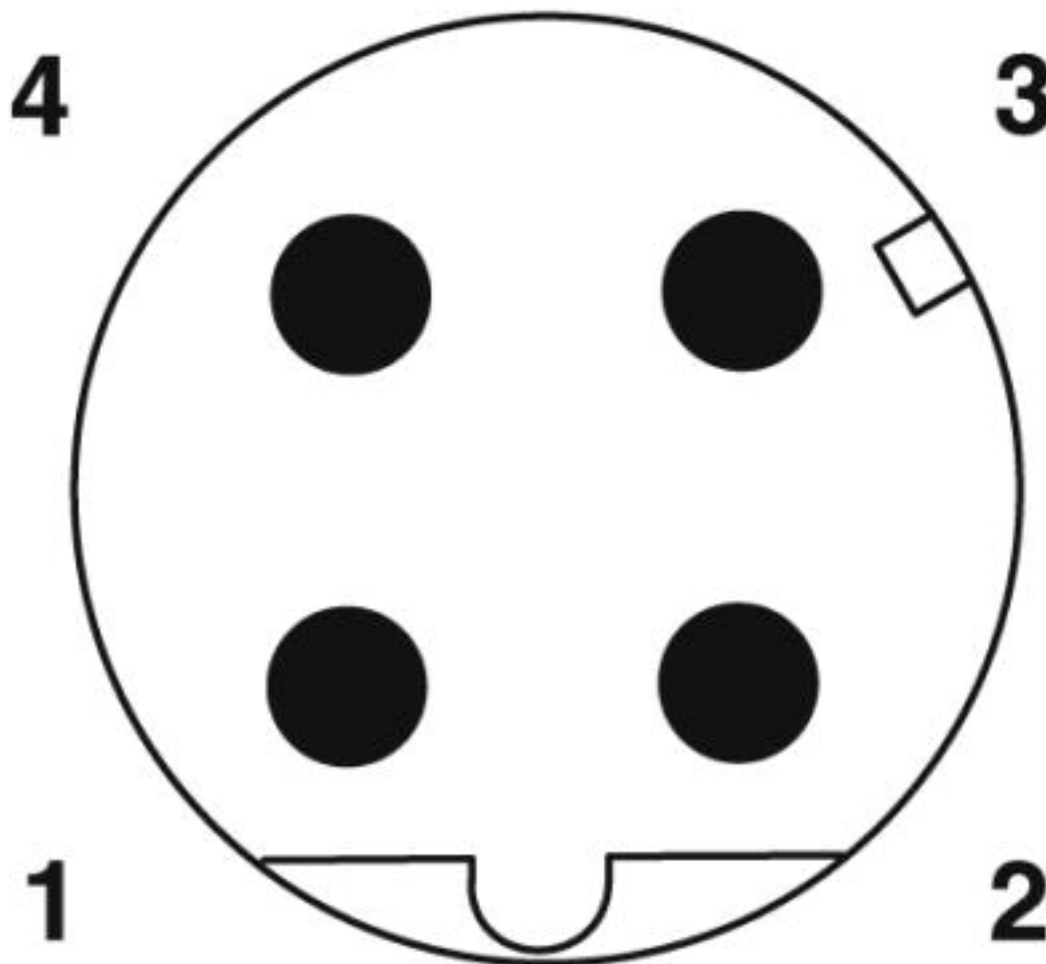
Circuit diagram



Contact assignment of the M12 connector

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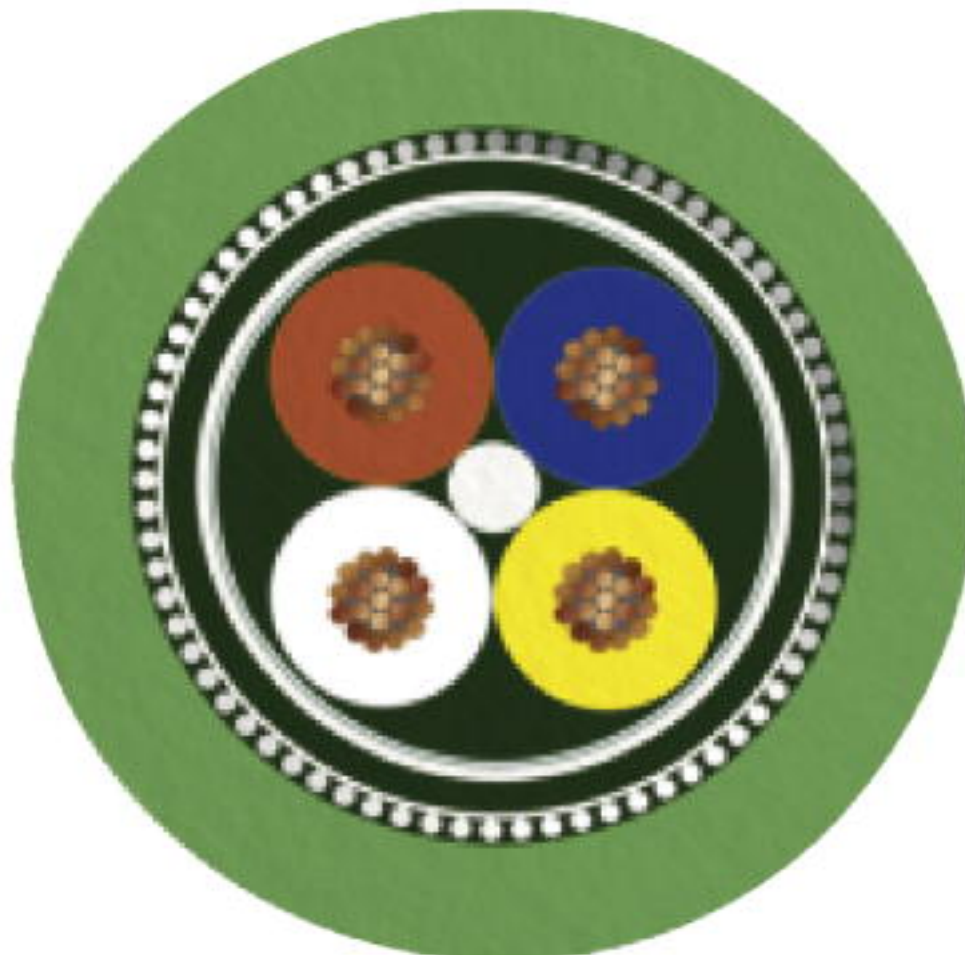
Schematic diagram



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

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Cable cross section



PROFINET robot CAT5 [93R]

Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 4.0	24010400
eCl@ss 4.1	24010400
eCl@ss 5.0	19030300
eCl@ss 5.1	19030300
eCl@ss 6.0	27061800
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801
eCl@ss 9.0	27060308

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Classifications

ETIM

ETIM 4.0	EC000830
ETIM 5.0	EC002599
ETIM 6.0	EC001262
ETIM 7.0	EC001262

UNSPSC

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	26121604
UNSPSC 18.0	26121604
UNSPSC 19.0	26121604
UNSPSC 20.0	26121604
UNSPSC 21.0	26121604

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC		RU D- DE.HB35.B.00385
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