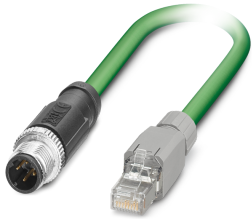


Network cable - NBC-M12MSD/ 3,0-93B/R4AQ - 1403496

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Network cable, PROFINET CAT5 (100 Mbps), EtherCAT® CAT5 (100 Mbps), 4-position, shielded (Advanced Shielding Technology), Plug straight M12 / IP67, coding: D, on Plug straight RJ45 / IP20, cable length: 3 m



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 656160
GTIN	4046356656160

Technical data

Mechanical characteristics

Overvoltage category	I
Degree of pollution	2
Weight	221.4 g
Flammability rating according to UL 94	V2

Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP20 (RJ45 connector)

Electrical characteristics

Transmission speed	100 Mbps
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Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
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Line characteristics

Cable abbreviation	2YY(ST)CY
UL AWM style	21694

Network cable - NBC-M12MSD/ 3,0-93B/R4AQ - 1403496

Technical data

Line characteristics

Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.55 mm
External cable diameter	6.5 mm ±0.2 mm
Wire colors	White, yellow, blue, orange
External sheath, color	green RAL 6018
Transmission medium	Copper
Insulation resistance	≥ 500 MΩ*km
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)
	76 dB (at 4 MHz)
	70 dB (at 10 MHz)
	65 dB (at 16 MHz)
	63 dB (at 20 MHz)
	60 dB (at 31.25 MHz)
	55 dB (at 62.5 MHz)
	50 dB (at 100 MHz)
Wave attenuation	2.1 dB (with 1 MHz)
	4 dB (at 4 MHz)
	6.3 dB (at 10 MHz)
	8 dB (at 16 MHz)
	9 dB (at 20 MHz)
	11.4 dB (at 31.25 MHz)
	16.5 dB (at 62.5 MHz)
	21.3 dB (at 100 MHz)
Signal speed	0.66 c
Signal runtime	5.3 ns/m
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires

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Technical data

Line characteristics

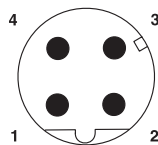
Cable weight	67 kg/km
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Flame resistance	according to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °C ... 70 °C (Cable, flexible installation)

Environmental Product Compliance

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

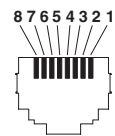
Drawings

Schematic diagram



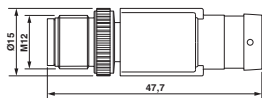
Pin assignment M12 male connector, 4-pos., D-coded, male side

Schematic diagram



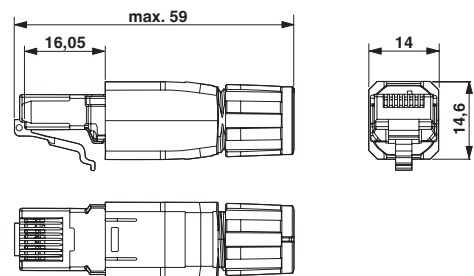
Connector pin assignment plug RJ45

Dimensional drawing



Plug, M12 x 1, straight, shielded

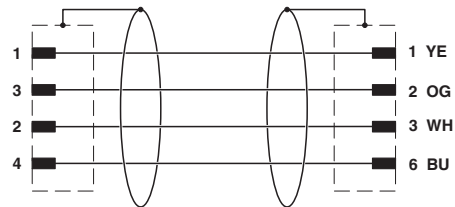
Dimensional drawing



RJ45 connector, IP20

Network cable - NBC-M12MSD/ 3,0-93B/R4AQ - 1403496

Circuit diagram



Contact assignment of the M12 and RJ45 plug

Cable cross section



PROFINET PVC stranded CAT5 [93B]

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Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 11.0	27060307
eCl@ss 4.0	24010400
eCl@ss 4.1	24010400
eCl@ss 5.0	19030300
eCl@ss 5.1	19030300
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 9.0	27060308

ETIM

ETIM 4.0	EC000830
ETIM 6.0	EC001262
ETIM 7.0	EC001855

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	26121600

Approvals

Approvals

Approvals

EAC-RoHS

Ex Approvals

Approval details

EAC-RoHS		RU D- DE.HB35.B.00385
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