Network cable - NBC-MSD/14,5-937/FSD SCO - 1423135

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Network cable, PROFINET CAT5 (100 Mbps), 4-position, black, cable length: 14.5 m, Product tested according to customer specification/rail application

Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 326153
GTIN	4055626326153

Technical data

Dimensions

Length of cable	14.5 m

General data

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	4
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
Standards/regulations	M12 connector IEC 61076-2-101
Overvoltage category	II
Degree of pollution	3

Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Flammability rating according to UL 94	V0

Cable

Cable type	PROFINET railway applications

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Technical data

Cable

Cable type (abbreviation)	939
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.4 mm ±0.1 mm
Wire colors	white-blue, orange-yellow
Overall twist	Star quad
Shielding	Aluminum-lined polyester foil, tinned copper braided shield
External sheath, color	black
Outer sheath thickness	1 mm
External cable diameter D	6.6 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	6 x D
Tensile strength GRP	≤ 60 N (temporary)
	≤ 15 N (Permanent)
Cable weight	71 kg/km
Outer sheath, material	PE-X
Material conductor insulation	Cell PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 5 GΩ*km
Conductor resistance	≤ 54.4 Ω/km
Cable capacity	44 nF/km (core-core)
Wave impedance	100 Ω ±5 Ω (f = 100 MHz)
Near end crosstalk attenuation (NEXT)	76 dB (with 1 MHz)
	71 dB (at 4 MHz)
	64 dB (at 10 MHz)
	60 dB (at 16 MHz)
	56 dB (at 31.25 MHz)
	52 dB (at 62.5 MHz)
	48 dB (at 100 MHz)
	45 dB (at 155 MHz)
	42 dB (at 200 MHz)
Power-summated near end crosstalk attenuation (PSNEXT)	73 dB (with 1 MHz)
	68 dB (at 4 MHz)
	61 dB (at 10 MHz)
	57 dB (at 16 MHz)
	53 dB (at 31.25 MHz)
	49 dB (at 62.5 MHz)

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	45 dB (at 100 MHz)
	42 dB (at 155 MHz)
	39 dB (at 200 MHz)
Attenuation	1.5 dB (with 1 MHz)
	3.3 dB (at 4 MHz)
	5.3 dB (at 10 MHz)
	6.9 dB (at 16 MHz)
	9.9 dB (at 31.25 MHz)
	14.5 dB (at 62.5 MHz)
	18.8 dB (at 100 MHz)
	23.6 dB (at 155 MHz)
	27.3 dB (at 200 MHz)
Return loss (RL)	25 dB (with 1 MHz)
	25 dB (at 4 MHz)
	28 dB (at 10 MHz)
	28 dB (at 16 MHz)
	27 dB (at 31.25 MHz)
	26 dB (at 62.5 MHz)
	25 dB (at 100 MHz)
	25 dB (at 155 MHz)
	23 dB (at 200 MHz)
Signal speed	0.75 c
Signal runtime	4.4 ns/m
Shield attenuation	60 dB (up to 1000 MHz)
Coupling resistance	< 13.00 mΩ/m (f = 1 MHz)
	< 8.00 mΩ/m (f = 10 MHz ... 100 MHz)
Cable impedance	100 Ω ±15 Ω (f = 0.5 MHz ... 3 MHz)
Nominal voltage, cable	125 V
Test voltage Core/Core	1000 V AC (50 Hz, 1 min.)
Test voltage Core/Shield	1000 V AC (50 Hz, 1 min.)
Fire protection in rail vehicles	BS 6853 (Internal cable Ia, Ib, II/external cable Ia, Ib, II)
	DIN 5510-2 (Fire protection level 1, 2, 3, 4)
	EN 45545-2 (Risk level HL1 - HL3)
	EN 50306-4
	NF F16-101 (Classification C/F1)
	NF F16-101 (Internal cable A1, A2, B/external cable A1, A2, B)
	NFPA 130
	PN-K-02511
	UIC 564-2 (Class A)
Flame resistance	according to EN 60332-1-2

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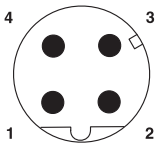
	according to EN 50266-2-5
	according to ISO 14572 5.21 (UN ECE-R 118.01)
Halogen-free	According to EN 50267-2-1
	according to EN 60684-2
Resistance to oil	according to EN 60684-2, 72 h at 100 °C, IRM 902
Other resistance	Resistant to fuel according to EN 60684-2, 72 h at 100 °C, IRM 903
	Resistant to ozone according to EN 50306-4, 72 h at 40 °C, procedure B, volume concentration 200 x 10^{-6}
Concentration of fumes	EN 61034-2
Ambient temperature (operation)	-40 °C ... 85 °C (cable, fixed installation)
	-25 °C ... 70 °C (cable, flexible installation)

Environmental Product Compliance

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

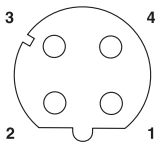
Drawings

Schematic diagram



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

Schematic diagram

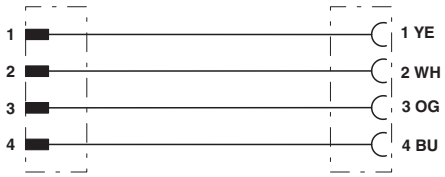


Pin assignment M12 socket, 4-pos., D-coded, female side

Cable cross section

PROFINET railway applications [939]

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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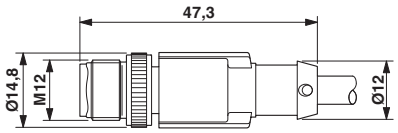
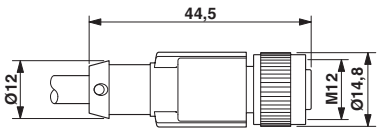
Dimensional drawing



M12 SPEEDCON plug, straight, shielded

Dimensional drawing



Socket M12-SPEEDCON, straight, shielded

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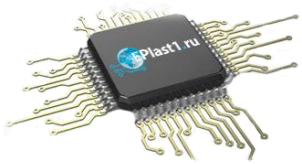
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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