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Network cable, PROFINET CAT5, 4-position, PE-X, black RAL 9005, shielded, Flush-type socket straight M12 SPEEDCON / IP65, Coding: D, on free cable end, Cable length: 1.5 m, Product tested according to customer specification/rail application



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
Weight per Piece (excluding packing)	120.0 g
Country of origin	Germany

Technical data

Dimensions

Length of cable	1.5 m
Ambient conditions	
Degree of protection	IP65

General data

ctrically tested for continuity.	
C 11801:2002)	
076-2-101	
Degree of pollution 3 Characteristics head 1	

 Head type
 Flush-type socket straight M12 SPEEDCON / IP65



Technical data

Characteristics head 1

4
D (Data)
Rear mounting
Pg9
silver
CuZn (Contact)
Au (Contact surface)
PA (Contact carriers)
Zinc die-cast, nickel-plated (Housing)
FKM (Seal)
yes
500 V DC ± 15 V DC (for 60 s, insulation resistance according to DIN EN 60512-3-1)
1.4 kV AC (for 60 s, dielectric strength according to DIN EN 60512-4-1)
≥ 100
-40 °C 85 °C
15 g ±5 g
free cable end

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
Cable type (abbreviation)	937
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
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	approx. 1.5 mm
Wire colors	white-blue, orange-yellow
Overall twist	Star quad
Shielding	Plastic-coated aluminum foil, tinned copper braided shield
External sheath, color	black RAL 9005



Technical data

Cable

Outer sheath thickness	approx. 1 mm
External cable diameter D	6.6 mm ±0.4 mm
Minimum bending radius, fixed installation	6 x D
Cable weight	70 kg/km
Outer sheath, material	PE-X
Material conductor insulation	Foamed PE
Conductor material	silver-plated Cu litz wires
Conductor resistance	\leq 54.4 Ω /km
Working capacitance	≤ 65 pF (core-core)
	≤ 100 pF (core-shield)
Wave impedance	100 Ω ±5 Ω (f = 100 MHz)
Signal speed	75 c
Shield attenuation	40 dB (30 MHz \le f \le 100 MHz)
Coupling resistance	$200.00 \text{ m}\Omega/\text{m} \text{ (f} \leq 30 \text{ MHz)}$
Nominal voltage, cable	300 V AC
Test voltage, cable	2000 V AC (50 Hz, 5 minutes)
Fire protection in rail vehicles	BS 6853 (Category Ia, Ib, II)
	GM/RT 2130 (Category Ia, Ib, II)
	EN 45545 (Risk level HL1 - HL3)
	DIN 5510 (Fire protection level 1, 2, 3, 4)
	NF F16-101 (Category A1, A2, B)
	NF F16-101 (Class C/F0)
	NFPA 130
	UNI CEI 11170 (Risk level LR1 - LR4)
Flame resistance	EN 60332-1-2
	EN 50266
	EN 60332-3-25
	NF C32-070, 2.1
	NF C32-070, 2.2
	UL 1685, 12 (FT4)
	in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01)
Halogen-free	According to EN 50267-2-1
Resistance to oil	according to IRM 902, 72 h at 100 °C
Other resistance	Resistance to fuels according to IRM 903, 168 h at 70 °C
Concentration of fumes	BS 6853 D.8.7
	EN 61034-2
	UL 1685, 12 (FT4)



Technical data

Cable

Fume corrosiveness	EN 50267-2-2
Fume toxicity	BS 6853 B.1
	EN 50305, 9.2
Ambient temperature (operation)	-50 °C 90 °C (cable, fixed installation)
	-40 °C 90 °C (cable, flexible installation)
Ambient temperature (installation)	-25 °C 90 °C

Classifications

eCl@ss

eCl@ss 5.1	27143423
eCl@ss 6.0	27143423
eCl@ss 8.0	27060308
eCl@ss 9.0	27060308

ETIM

ETIM 4.0	EC002599
ETIM 5.0	EC002599

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approvals submitted

Approval details

EAC

Drawings



Dimensional drawing

Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

Cable cross section



PROFINET railway applications [937]

M12 flush-type connector

Circuit diagram



Contact assignment of the M12 socket

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Schematic diagram



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

Dimensional drawing

1,5

2,8

38,1 30,5 20,5

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