

SAC-4P-1,0-731/FS SCO RAIL - Sensor/actuator cable



1466072

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Sensor/actuator cable, 4-position, PE-X halogen-free, black, free cable end, on Socket straight M12 SPEEDCON, coding: A, cable length: 1 m, For railway applications

Commercial data

Item number	1466072
Packing unit	1 pc
Minimum order quantity	100 pc
Note	Made to order (non-returnable)
Sales key	*****
Product key	AF1CCA
GTIN	4063151858186
Weight per piece (including packing)	58.2 g
Weight per piece (excluding packing)	58.2 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Sensor/actuator cable
Application	Railway applications
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	PA 6.6
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Signaling

Status display	no
Status display present	No

Connector

Connection 1

Type	free cable end
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Connection 2

Type	Socket straight M12 SPEEDCON
Number of positions	4

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Locking type	SPEEDCON
Coding type	A

Cable/line

Cable length	1 m
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RADOX® black [731]

Cable weight	43 kg/km
Number of positions	4
Shielded	no
Cable type	RADOX® black [731]
Conductor structure signal line	19x 0.18 mm
AWG signal line	20
Conductor cross section	4x 0.5 mm ²
Wire diameter incl. insulation	1.43 mm
External cable diameter	5.00 mm ±0.2 mm
Outer sheath, material	PE-X
External sheath, color	black
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE-X
Single wire, color	white 1, white 2, white 3, white 4
Overall twist	4 wires, twisted
Max. conductor resistance	≤ 40.1 Ω/km
Nominal voltage, cable	600 V AC (Core-ground, U ₀)
	1000 V AC (Core-ground, U)
	≤ 720 V AC (core-ground)
	≤ 1200 V AC (Core-ground, U _m)
	≤ 900 V DC (Core-ground, V ₀)
	≤ 1500 V DC (Line-line)
Test voltage	3500 V AC (50 Hz, 5 min.)
	8400 V DC (50 Hz, 5 min.)
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	4 x D
Smallest bending radius, fixed installation	15 mm
Smallest bending radius, movable installation	20 mm
Halogen-free	in accordance with EN 50267-2-1
Flame resistance	IEC 60332-1-2
	EN 50266
	EN 50305, 9.1.2
	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)
Fume corrosiveness	EN 50267-2-2

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Fume toxicity	BS 6853 B.1
	EN 50305, 9.2
Concentration of fumes	BS 6853 D.8.7
	EN 61034-2
	UL 1685, 12 (FT4)
Resistance to oil	according to IRM 902, 72 h at 100 °C
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/F1)
	NFPA 130
Other resistance	UNI CEI 11170 (Risk level LR1 - LR4)
	Resistance to fuels (according to IRM 903, 168 h at 70 °C)
Ambient temperature (operation)	-50 °C ... 120 °C (cable, fixed installation)
	-25 °C ... 90 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
Ambient temperature (operation)	-40 °C ... 85 °C (Plug / socket)

Standards and regulations

M12

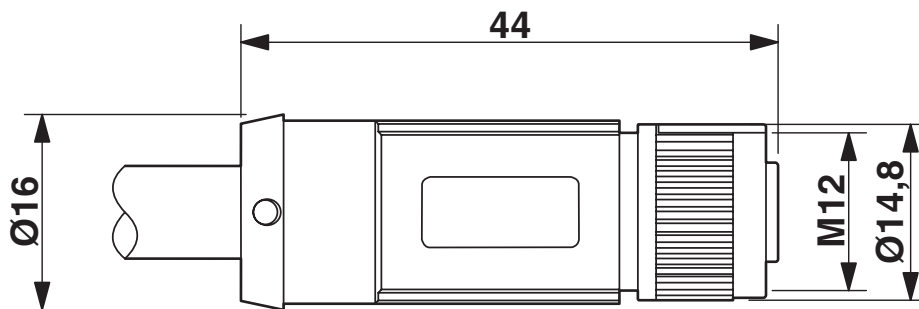
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101
Standard designation	Shock, vibration
Standards/specifications	EN 50155

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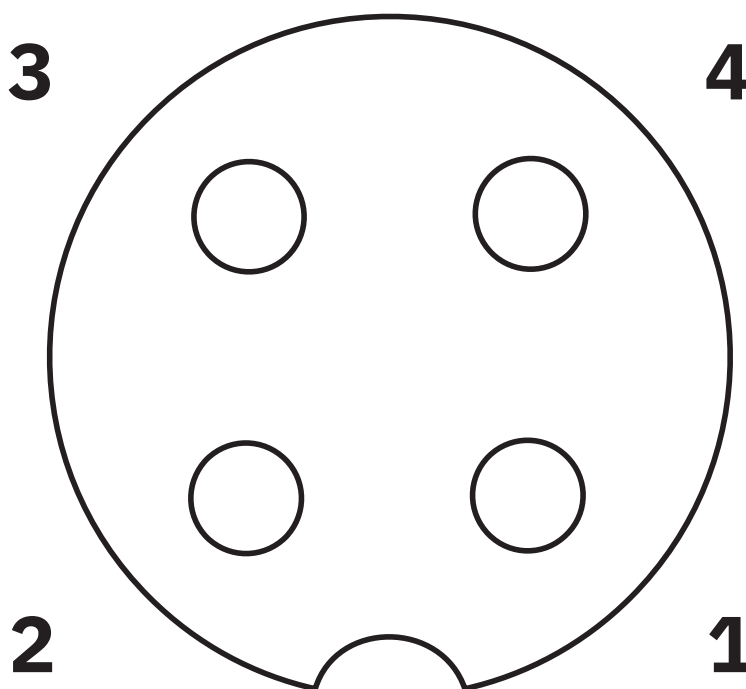
Drawings

Dimensional drawing



M12-SPEEDCON socket, straight

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 socket

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Classifications

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

ETIM

ETIM 9.0	EC001855
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	390140fd-7838-46f0-9c3f-2a00e4bcc568

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