

Sensor/Actuator cable - SAC-5P-MS/ 2,0-28R SCO RAIL - 1407325

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Sensor/Actuator cable, 5-position, PE-X halogen-free, black, shielded, Plug straight M12 SPEEDCON, A-coded, on free cable end, Cable length: 2 m, For railway applications

Why buy this product

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Safety thanks to flame retardancy: PA 6.6 grip and radiation-cross-linked cables satisfy the most stringent requirements
- ✓ Securely locked by special vibration brake
- ✓ Resistant to temperature influences – tested for an extended temperature range and for resistance to temperature shocks
- ✓ Reliable signal transmission – 360° shielding in environments with electromagnetic interference



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 STK |
| GTIN |  4 046356 774413 |
| GTIN | 4046356774413 |

Technical data

Dimensions

| | |
|-----------------|-----|
| Length of cable | 2 m |
|-----------------|-----|

Ambient conditions

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

General

| | |
|-----------------------|-------------------------------|
| Rated current at 40°C | 4 A |
| Rated voltage | 60 V |
| Number of positions | 5 |
| Insulation resistance | ≥ 100 MΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |

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Technical data

General

| | |
|------------------------------|---------------------------|
| | Shock, vibration EN 50155 |
| Status display | No |
| Protective circuit/component | Unwired |
| Overvoltage category | II |
| Degree of pollution | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

Material

| | |
|--|---|
| Flammability rating according to UL 94 | V0 |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 6.6 |
| Material of grip body | PA 6.6 |
| Material, knurls | Zinc die-cast, nickel-plated |
| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

Standards and Regulations

| | |
|--|------------------|
| Standard designation | M12 connector |
| Standards/regulations | IEC 61076-2-101 |
| Standard designation | Shock, vibration |
| Standards/regulations | EN 50155 |
| Flammability rating according to UL 94 | V0 |

Cable

| | |
|---|---|
| Cable type | Shielded black RADOX® |
| Cable type (abbreviation) | 28R |
| Conductor cross section | 5x 0.5 mm ² |
| AWG signal line | 20 |
| Conductor structure signal line | 19x 0.18 mm |
| Core diameter including insulation | 1.43 mm |
| Wire colors | White 1, white 2, white 3, white 4, white 5 |
| Overall twist | 5 cores, twisted |
| Shielding | Tinned copper braided shield |
| External sheath, color | black |
| External cable diameter D | 6.2 mm ±0,3 mm |
| Minimum bending radius, fixed installation | 3 x D |
| Minimum bending radius, flexible installation | 4 x D |
| Cable weight | 70 kg/km |
| Outer sheath, material | PE-X |
| Material conductor insulation | PE-X |

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Technical data

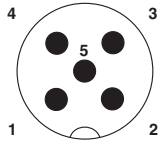
Cable

| | |
|----------------------------------|--|
| Conductor material | Tin-plated Cu litz wires |
| 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 (core-core) |
| Test voltage, cable | 3500 V AC (50 Hz, 5 min.) |
| | 8400 V DC (50 Hz, 5 min.) |
| 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) |
| Fume corrosiveness | EN 50267-2-2 |
| Fume toxicity | BS 6853 B.1 |
| | EN 50305, 9.2 |
| Ambient temperature (operation) | -50 °C ... 120 °C (cable, fixed installation) |
| | -25 °C ... 90 °C (cable, flexible installation) |

Drawings

Sensor/Actuator cable - SAC-5P-MS/ 2,0-28R SCO RAIL - 1407325

Schematic diagram



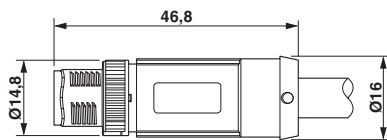
Pin assignment M12 male connector, 5-pos., A-coded, male side

Cable cross section



Shielded black RADOX® [28R]

Dimensional drawing



M12 SPEEDCON plug, straight, shielded

Circuit diagram



Contact assignment of the M12 plug

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