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Bus system flush-type socket, DeviceNet/CANopen, 5-pos., M12, shielded, A-coded, Speedcon, rear/screw mounting with Pg9 thread, with 1.0 m bus cable, $2 \times 0.2 \text{ mm}^2$; $2 \times 0.32 \text{ mm}^2$



Key commercial data

| Packing unit | 1 PCE |
|--------------------------------------|----------|
| Weight per Piece (excluding packing) | 80.0 GRM |
| Custom tariff number | 85444290 |
| Country of origin | Germany |

Technical data

Dimensions

| Length of cable 1 m | Length of cable | 1 m |
|---------------------|-----------------|-----|
|---------------------|-----------------|-----|

Ambient conditions

| Ambient temperature (operation) | -25 °C 85 °C (Plug / socket) |
|---------------------------------|------------------------------|
| Degree of protection | IP67 |

General

| Rated current at 40°C | 4 A |
|------------------------|-------------------------------|
| Rated voltage | 60 V |
| Number of positions | 5 |
| Insulation resistance | 100 ΜΩ |
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Signal type/category | DeviceNet™ |
| Surge voltage category | II |

12/12/13 Page 1 / 5



Technical data

General

| 7 - 0.00.00 | Pollution degree 3 | 3 |
|-------------|--------------------|---|
|-------------|--------------------|---|

Material

| Inflammability class according to UL 94 | V0 |
|---|------------------------------|
| Contact material | CuZn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 66 |
| Material, knurls | Zinc die-cast, nickel-plated |
| Sealing material | NBR |

Cable

| Cable type CAN Bus/DeviceNet Cable type (abbreviation) 920 Conductor cross section 2x 0.25 mm² (signal line) Learning (Power supply) 1x 0.34 mm² (Power supply) AWG signal line 24 AWG power supply 22 Conductor structure; voltage supply 19x 0.13 mm Core diameter including insulation 1.95 mm ± 0.05 mm (signal line) Core diameter including insulation 1.95 mm ± 0.05 mm (Power supply) Wire colors Red-black, blue-white Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist 2 pairs around a drain wire in the center to the core Shielding Tinned copper braided shield Optical shield covering 80 % External sheath, color Violet, RAL 4001 External cable diameter D 6.7 mm ± 0.3 mm Smallest bending radius, fixed installation 67 mm Smallest bending radius, movable installation 67 mm Number of bending cycles 5000000 Bending radius 70 mm Traversing path | | |
|---|---|---|
| Conductor cross section 2x 0.25 mm² (signal line) 2x 0.34 mm² (Power supply) 1x 0.34 mm² (Drain wire) AWG signal line 24 AWG power supply 22 Conductor structure signal line 19x 0.13 mm Conductor structure, voltage supply 19x 0.15 mm Core diameter including insulation 1.95 mm ±0.05 mm (signal line) Vier colors Red-black, blue-white Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist 2 pairs around a drain wire in the center to the core Shielding Tinned copper braided shield Optical shield covering 80 % External sheath, color Violet, RAL 4001 External cable diameter D 6.7 mm ±0.3 mm Smallest bending radius, fixed installation 67 mm Smallest bending radius, movable installation 67 mm Number of bending cycles 5000000 Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | Cable type | CAN Bus/DeviceNet |
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| Conductor structure signal line Conductor structure, voltage supply 19x 0.15 mm 1.95 mm ±0.05 mm (signal line) 1.4 mm ±0.05 mm (Power supply) Wire colors Red-black, blue-white Twisted pairs 2 cores to the pair Type of pair shielding Overall twist 2 pairs around a drain wire in the center to the core Shielding Tinned copper braided shield Optical shield covering External sheath, color External cable diameter D Smallest bending radius, fixed installation Smallest bending radius, movable installation Smallest bending radius, movable installation Red-black, blue-white 2 cores to the pair Aluminum-lined polyester foil 2 pairs around a drain wire in the center to the core Tinned copper braided shield 80 % External sheath, color Violet, RAL 4001 6.7 mm ±0.3 mm 67 mm Smallest bending radius, fixed installation 67 mm Number of bending cycles 5000000 Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | AWG signal line | 24 |
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| External sheath, color External cable diameter D 6.7 mm ±0.3 mm Smallest bending radius, fixed installation 67 mm Smallest bending radius, movable installation 67 mm Number of bending cycles 5000000 Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | Shielding | Tinned copper braided shield |
| External cable diameter D 6.7 mm ±0.3 mm Smallest bending radius, fixed installation 67 mm Smallest bending radius, movable installation 67 mm Number of bending cycles 5000000 Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | Optical shield covering | 80 % |
| Smallest bending radius, fixed installation 67 mm Smallest bending radius, movable installation 67 mm Number of bending cycles 5000000 Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | External sheath, color | Violet, RAL 4001 |
| Smallest bending radius, movable installation 67 mm Number of bending cycles 5000000 Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | External cable diameter D | 6.7 mm ±0.3 mm |
| Number of bending cycles 5000000 Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | Smallest bending radius, fixed installation | 67 mm |
| Bending radius 70 mm Traversing path 4.5 m Traversing rate 3 m/s | Smallest bending radius, movable installation | 67 mm |
| Traversing path 4.5 m Traversing rate 3 m/s | Number of bending cycles | 5000000 |
| Traversing rate 3 m/s | Bending radius | 70 mm |
| • | Traversing path | 4.5 m |
| Acceleration 3 m/s ² | Traversing rate | 3 m/s |
| | Acceleration | 3 m/s ² |

12/12/13 Page 2 / 5



Technical data

Cable

| Outer sheath, material | PUR |
|---------------------------------|--|
| Material conductor insulation | Foamed PE (signal line) |
| | PE (Power supply) |
| Conductor material | Tin-plated Cu litz wires |
| Insulation resistance | ≥ 5 GΩ*km (signal line) |
| | $\geq 5 \text{ G}\Omega^*\text{km}$ (Power supply) |
| Working capacitance | nom. 40 nF (signal line) |
| Wave impedance | 120 Ω ± 12 Ω (with 1 MHz) |
| Nominal voltage, cable | max. 300 V |
| Test voltage, cable | 2000 V (50 Hz, 1 min.) |
| Flame resistance | UL 1581, Sec. 1060 (FT-1) |
| | IEC 60332-1 |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) |
| | -20 °C 70 °C (cable, flexible installation) |

Classifications

eCl@ss

| eCl@ss 4.0 | 27250313 |
|------------|----------|
| eCl@ss 4.1 | 27250313 |
| eCl@ss 5.0 | 27143423 |
| eCl@ss 5.1 | 27143423 |
| eCl@ss 6.0 | 27143423 |
| eCl@ss 7.0 | 27449001 |
| eCl@ss 8.0 | 27449001 |

ETIM

| ETIM 3.0 | EC002061 |
|----------|----------|
| ETIM 4.0 | EC002061 |
| ETIM 5.0 | EC002061 |

UNSPSC

| UNSPSC 6.01 | 31251501 |
|---------------|----------|
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |

12/12/13 Page 3 / 5



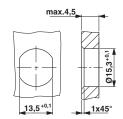
| Classifications | | |
|-----------------------------|--------------|--|
| UNSPSC | | |
| UNSPSC 13.2 | 39121413 | |
| Approvals | | |
| Approvals | | |
| Approvals | | |
| UL Recognized / GOST / GOST | | |
| Ex Approvals | | |
| Approvals submitted | | |
| Approval details | | |
| UL Recognized \$\) | | |
| mm²/AWG/kcmil | 20.00 | |
| Nominal current IN | 26-20 4 A | |
| Nominal voltage UN | 60 V | |
| | | |
| | | |
| GOST | | |
| | | |

Drawings

GOST 🚭



Dimensioned drawing



Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

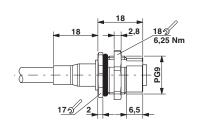
Housing cutout for Pg9 fastening thread, mounting panel with feedthrough hole (alternatively with surface as protection against rotation)

Cable cross section



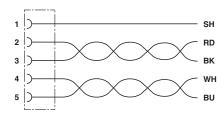
CAN Bus/DeviceNet [920]

Dimensioned drawing



M12 panel feed-through

Circuit diagram



Contact assignment of the M12 socket

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