

## Bus system cable - SAC-4P-MINMR/ 2,0-960 VA - 1429444

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Bus system cable, FOUNDATION Fieldbus (31.25 kbps), 3-position, PVC, orange RAL 2003, shielded, Plug angled 7/8"-16UNF, A-coded, on free cable end, Cable length: 2 m



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Weight per Piece (excluding packing) | 183.2 g  |
| Custom tariff number                 | 85444290 |
| Country of origin                    | Germany  |

### Technical data

#### Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | DOT 15571-58-1 |
|------------|----------------|

#### Dimensions

|                                            |       |
|--------------------------------------------|-------|
| Length of cable                            | 2 m   |
| Stripping length of the free conductor end | 50 mm |

#### Ambient conditions

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Ambient temperature (operation) | -40 °C ... 105 °C (Plug / socket) |
| Degree of protection            | IP67                              |

#### General

|                       |                                 |
|-----------------------|---------------------------------|
| Rated current at 40°C | 5.2 A                           |
| Rated voltage         | 300 V                           |
| Number of positions   | 3                               |
| Insulation resistance | ≥ 10 MΩ                         |
| Coding                | A - standard                    |
| Signal type/category  | FOUNDATION Fieldbus, 31.25 kbps |

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### Technical data

#### General

|                      |                          |
|----------------------|--------------------------|
| Status display       | No                       |
| Overvoltage category | II                       |
| Degree of pollution  | 2                        |
| Torque               | 0.8 Nm (7/8" connectors) |

#### Material

|                                        |                 |
|----------------------------------------|-----------------|
| Flammability rating according to UL 94 | HB              |
| Contact material                       | CuZn            |
| Contact surface material               | AU              |
| Contact carrier material               | PA 66           |
| Material of grip body                  | TPU             |
| Material, knurls                       | Stainless steel |

#### Standards and Regulations

|                                        |    |
|----------------------------------------|----|
| Flammability rating according to UL 94 | HB |
|----------------------------------------|----|

#### Cable

|                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| Cable type                                  | FOUNDATION Fieldbus orange                        |
| Cable type (abbreviation)                   | 960                                               |
| Cable structure                             | 2xAWG18/7 + 1xAWG20/7                             |
| Conductor cross section                     | 2x 0.75 mm <sup>2</sup> (Signal line)             |
|                                             | 1x 0.5 mm <sup>2</sup> (Drain wire)               |
| AWG signal line                             | 18                                                |
| Conductor structure signal line             | 7x 0.40 mm                                        |
| Core diameter including insulation          | 2.24 mm ±0.05 mm                                  |
| Thickness, insulation                       | 0.5 mm                                            |
| Wire colors                                 | Blue, orange                                      |
| Twisted pairs                               | 2 cores to the pair                               |
| Overall twist                               | One pair with one drain wire and fillers for core |
| Shielding                                   | Plastic-coated aluminum foil with a drain wire    |
| Optical shield covering                     | 100 %                                             |
| External sheath, color                      | orange RAL 2003                                   |
| Outer sheath thickness                      | 1 mm                                              |
| External cable diameter D                   | 7.5 mm ±0.25 mm                                   |
| Smallest bending radius, fixed installation | 75 mm                                             |
| Cable weight                                | 56.552 kg/km                                      |
| Outer sheath, material                      | PVC                                               |
| Material conductor insulation               | PO (Signal line)                                  |
| Conductor material                          | Tin-plated Cu litz wires                          |

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### Technical data

#### Cable

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Conductor resistance            | ≤ 19.35 Ω/km (Signal line)          |
|                                 | 26 Ω/km (shield)                    |
| Working capacitance             | 78 nF (at 1 kHz)                    |
| Cable capacity                  | 147 pF/m (at 1 kHz, core/shield)    |
|                                 | ≤ 3.94 pF/m (capacitance unbalance) |
| Signal speed                    | 0.66 c                              |
| Shield attenuation              | 3 dB/km (At 39 kHz)                 |
| Cable impedance                 | 100 Ω ±20 % (At 31.25 kHz)          |
| Inductance                      | 0.6233 µH (per meter)               |
| Nominal voltage, cable          | 300 V                               |
| Special properties              | UL standards PLTC-ER and ITC        |
| Flame resistance                | UL 1685 (CSA FT 4)                  |
|                                 | UL 1685 (vertical tray)             |
|                                 | UL 1666 (riser)                     |
| Ambient temperature (operation) | -40 °C ... 105 °C                   |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

#### UNSPSC

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

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### Classifications

#### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 31251501 |
|-------------|----------|

### Approvals

#### Approvals

#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

#### Approvals submitted

### Approval details

|                                                                                               |       |
|-----------------------------------------------------------------------------------------------|-------|
| UL Listed  |       |
| Nominal current I <sub>N</sub>                                                                | 5.2 A |
| Nominal voltage U <sub>N</sub>                                                                | 300 V |

|                                                                                                |       |
|------------------------------------------------------------------------------------------------|-------|
| cUL Listed  |       |
| Nominal current I <sub>N</sub>                                                                 | 5.2 A |
| Nominal voltage U <sub>N</sub>                                                                 | 300 V |

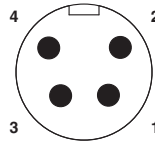
|     |
|-----|
| EAC |
|-----|

|                                                                                                  |
|--------------------------------------------------------------------------------------------------|
| cULus Listed  |
|--------------------------------------------------------------------------------------------------|

### Drawings

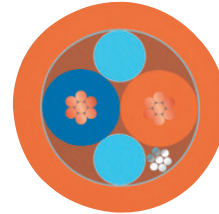
## Bus system cable - SAC-4P-MINMR/ 2,0-960 VA - 1429444

Schematic diagram



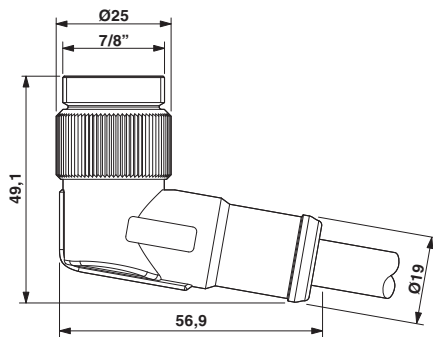
Pin assignment, plug, 7/8"-16UNF, 4-pos., view of male side

Cable cross section



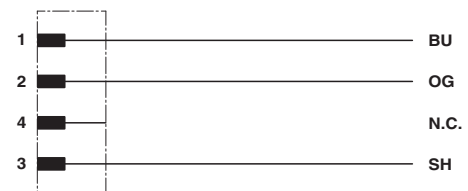
FOUNDATION Fieldbus orange [960]

Dimensional drawing



7/8"-16UNF plug, angled

Circuit diagram



Contact assignment of the 7/8" plug

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