

## Bus system cable - SAC-4P-MINMS/20,0-960/MINFSVAL - 1429619

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Bus system cable, FOUNDATION Fieldbus, Foundation Fieldbus, 3-position, PVC, orange RAL 2003, shielded, Plug straight 7/8"-16UNF, A-coded, on Socket straight 7/8"-16UNF, A-coded, Cable length: 20 m



### Key commercial data

|                                      |            |
|--------------------------------------|------------|
| Packing unit                         | 1 1        |
| Weight per Piece (excluding packing) | 222.22 GRM |
| Custom tariff number                 | 85444290   |
| Country of origin                    | Germany    |

### Technical data

#### Dimensions

|                 |      |
|-----------------|------|
| Length of cable | 20 m |
|-----------------|------|

#### 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                   |
| Contact resistance    | ≤ 5 mΩ              |
| Insulation resistance | ≥ 10 MΩ             |
| Coding                | A - standard        |
| Signal type/category  | FOUNDATION Fieldbus |
| Status display        | No                  |

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### Technical data

#### General

|                        |                          |
|------------------------|--------------------------|
| Surge voltage category | II                       |
| Pollution degree       | 2                        |
| Torque                 | 0.8 Nm (7/8" connectors) |

#### Material

|                                         |                  |
|-----------------------------------------|------------------|
| Inflammability class according to UL 94 | HB               |
| Contact material                        | CuZn             |
| Contact surface material                | AU               |
| Contact carrier material                | PA 66            |
| Material of grip body                   | TPU              |
| Material, knurls                        | High-grade steel |

#### 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 (Core insulation)                          |
|                                             | 1 mm (Outer cable sheath)                         |
| 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                                   |
| External cable diameter                     | 7.42 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                          |
| Conductor resistance                        | 19.2 Ω/km (signal line)                           |
|                                             | 26 Ω/km (shield)                                  |

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### Technical data

#### Cable

|                                 |                              |
|---------------------------------|------------------------------|
| Working capacitance             | 148 nF (core-shield)         |
|                                 | 78 nF (core-core)            |
| Wave impedance                  | 100 Ω (At 31.25 kHz)         |
| Signal speed                    | 0.66 c                       |
| Nominal voltage, cable          | 300 V                        |
| Special properties              | UL standards PLTC-ER and ITC |
| Flame resistance                | UL 1685 (CSA FT 4)           |
| Ambient temperature (operation) | -30 °C ... 105 °C (Cable)    |

### 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 | 27061801 |

#### 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 |
| UNSPSC 13.2   | 31251501 |

### Approvals

#### Approvals

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#### Approvals

UL Listed / cUL Listed / GOST / cULus Listed

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## Approvals

Ex Approvals

Approvals submitted

## Approval details

|                    |       |
|--------------------|-------|
| UL Listed          |       |
|                    |       |
| Nominal current IN | 5.2 A |
| Nominal voltage UN | 300 V |

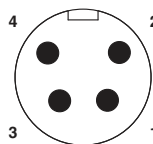
|                    |       |
|--------------------|-------|
| cUL Listed         |       |
|                    |       |
| Nominal current IN | 5.2 A |
| Nominal voltage UN | 300 V |

|      |  |
|------|--|
| GOST |  |
|------|--|

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

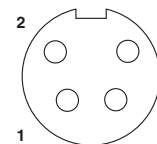
## Drawings

Schematic diagram



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

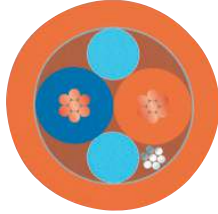
Schematic diagram



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

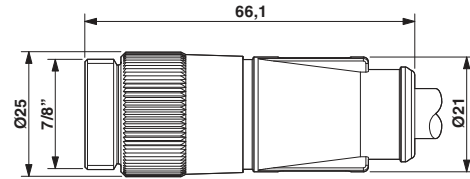
# Bus system cable - SAC-4P-MINMS/20,0-960/MINFSVAL - 1429619

Cable cross section



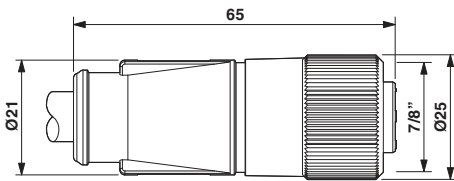
FOUNDATION Fieldbus orange [960]

Dimensioned drawing



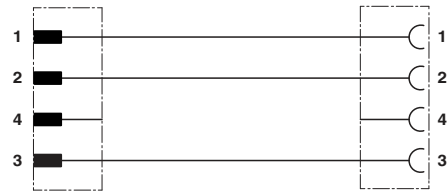
7/8"-16UNF plug, straight

Dimensioned drawing



7/8"-16UNF socket, straight

Circuit diagram



Contact assignment of the 7/8" connector and the 7/8" socket