

## Bus system cable - SAC-4P-MINMS/10,0-960/MINFSVAL - 1429596

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Bus system cable, FOUNDATION Fieldbus (31.25 kbps), 3-position, PVC, orange RAL 2003, shielded, Plug straight 7/8"-16UNF, coding: A, on Socket straight 7/8"-16UNF, coding: A, cable length: 10 m



### Key Commercial Data

|                                      |                                                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                 |
| GTIN                                 |  |
| GTIN                                 | 4046356318808                                                                        |
| Weight per Piece (excluding packing) | 222.220 g                                                                            |
| Custom tariff number                 | 85444290                                                                             |
| Country of origin                    | Germany                                                                              |

### Technical data

#### Dimensions

|                 |      |
|-----------------|------|
| Length of cable | 10 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            |
| Insulation resistance | ≥ 10 MΩ      |
| Coding                | A - standard |

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### Technical data

#### General

|                      |                                 |
|----------------------|---------------------------------|
| Signal type/category | FOUNDATION Fieldbus, 31.25 kbps |
| 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 6.6          |
| Material of grip body                  | TPU             |
| Material, knurls                       | Stainless steel |

#### Pin assignment

|                                                           |                                     |
|-----------------------------------------------------------|-------------------------------------|
| Contact   Color (signal designation)   Contact (optional) | 1 (Plug)   BU (DATA-)   1 (Socket)  |
|                                                           | 2 (Plug)   OG (DATA+)   2 (Socket)  |
|                                                           | 3 (Plug)   SR (shield)   3 (Socket) |

#### 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                                              |

## Bus system cable - SAC-4P-MINMS/10,0-960/MINFSVAL - 1429596

### Technical data

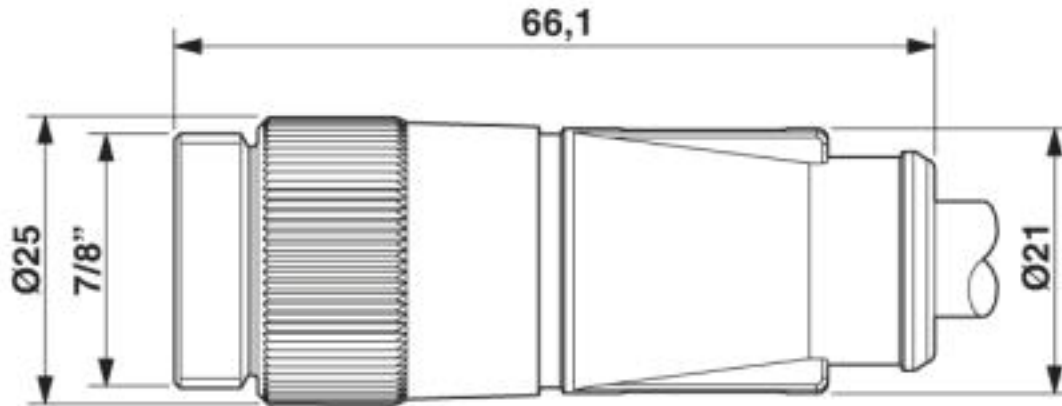
#### Cable

|                                             |                                               |
|---------------------------------------------|-----------------------------------------------|
| External cable diameter D                   | 7.5 mm $\pm$ 0.25 mm                          |
| Smallest bending radius, fixed installation | 75 mm                                         |
| Cable weight                                | 56.552 kg/km                                  |
| Tensile strength GRP                        | 260 N                                         |
| Outer sheath, material                      | PVC                                           |
| Material conductor insulation               | PO (Signal line)                              |
| Conductor material                          | Tin-plated Cu litz wires                      |
| Conductor resistance                        | $\leq$ 19.35 $\Omega$ /km (Signal line)       |
|                                             | 26 $\Omega$ /km (shield)                      |
| Working capacitance                         | 78 nF (at 1 kHz)                              |
| Cable capacity                              | 147 pF/m (at 1 kHz, core/shield)              |
|                                             | $\leq$ 3.94 pF/m (capacitance unbalance)      |
| Signal speed                                | 0.66 c                                        |
| Shield attenuation                          | 3 dB/km (at 39 kHz)                           |
| Cable impedance                             | 100 $\Omega$ $\pm$ 20 % (At 31.25 kHz)        |
| Conductor inductance                        | 0.6233 $\mu$ H/m                              |
| 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 (cable, fixed installation) |

### Drawings

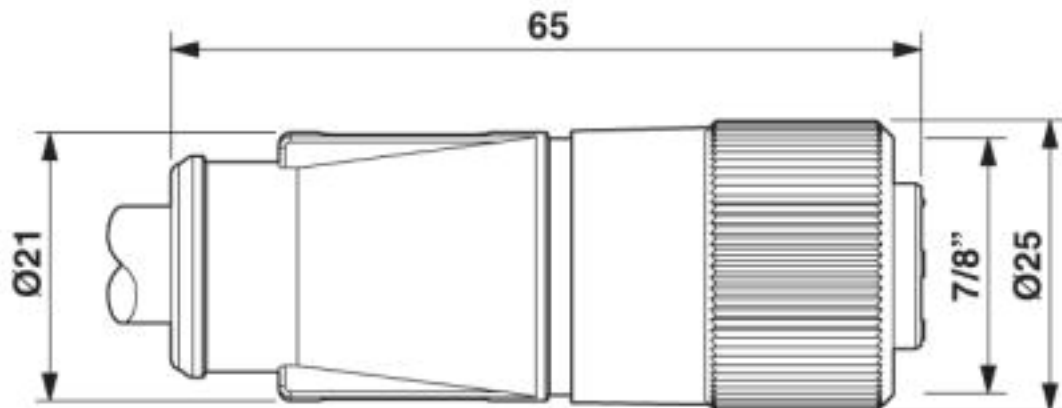
## Bus system cable - SAC-4P-MINMS/10,0-960/MINFSVAL - 1429596

Dimensional drawing



7/8"-16UNF plug, straight

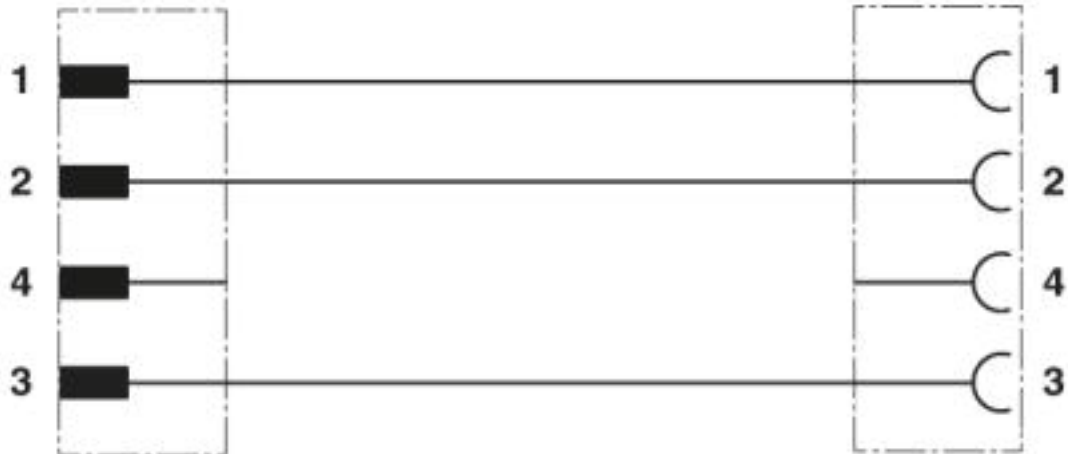
Dimensional drawing



7/8"-16UNF socket, straight

## Bus system cable - SAC-4P-MINMS/10,0-960/MINFSVAL - 1429596

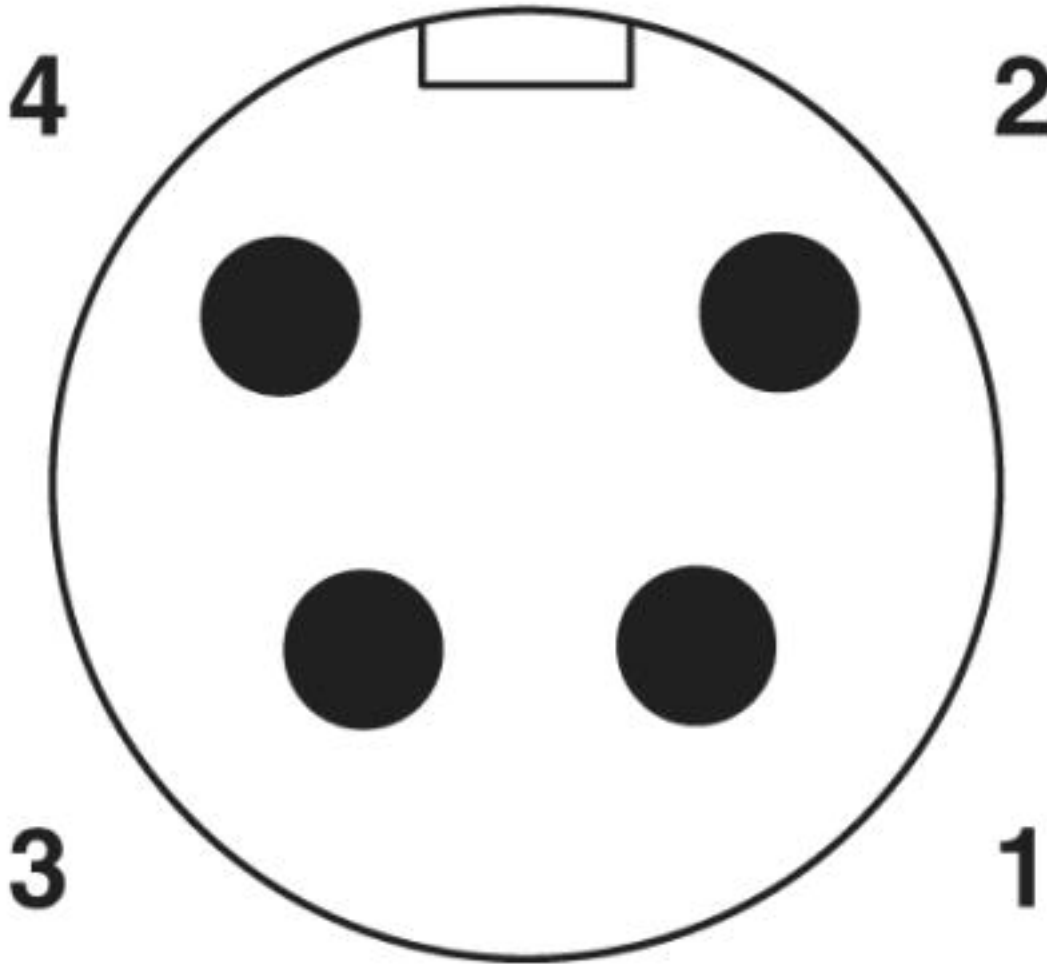
Circuit diagram



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

## Bus system cable - SAC-4P-MINMS/10,0-960/MINFSVAL - 1429596

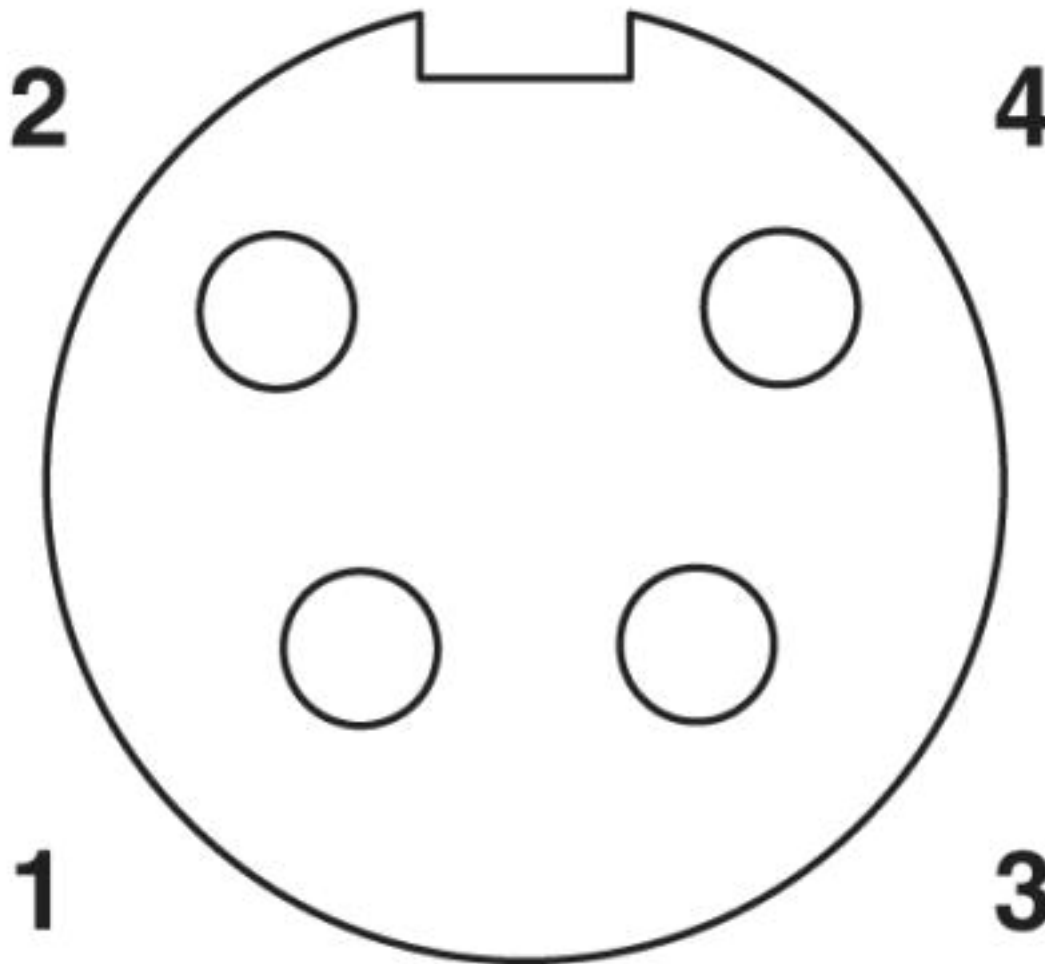
Schematic diagram



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

## Bus system cable - SAC-4P-MINMS/10,0-960/MINFSVAL - 1429596

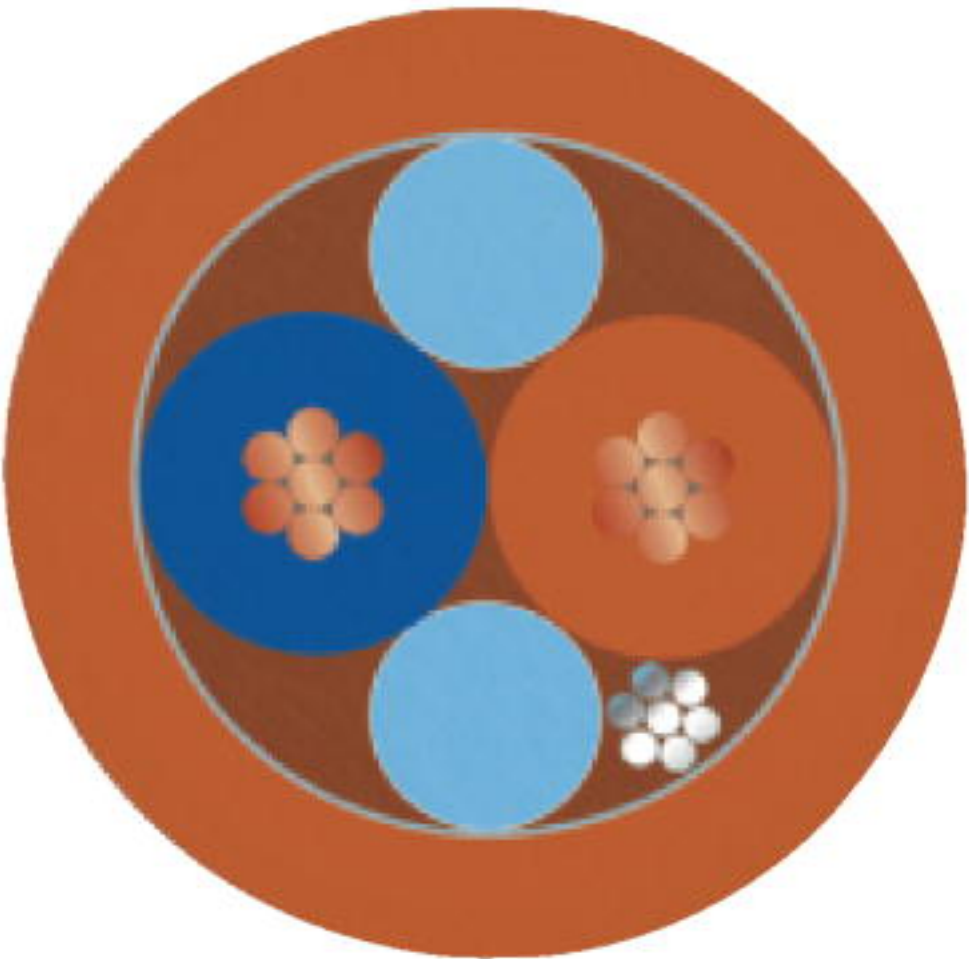
Schematic diagram



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

Bus system cable - SAC-4P-MINMS/10,0-960/MINFSVAL - 1429596

Cable cross section



FOUNDATION Fieldbus orange [960]

Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061800 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |

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### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 9.0 | 27060311 |
|------------|----------|

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 19.0   | 31251501 |