

# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390  
<https://www.phoenixcontact.com/us/products/1434390>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Bus system cable, FOUNDATION Fieldbus (31.25 kbps), 3-position, PVC, blue RAL 5015, shielded, Plug straight 7/8"-16UNF, coding: A, on Socket angled 7/8"-16UNF, coding: A, cable length: 0.5 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1434390                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Product key                          | BF1FCG                         |
| Catalog page                         | Page 421 (C-4-2015)            |
| GTIN                                 | 4046356455985                  |
| Weight per piece (including packing) | 222.22 g                       |
| Weight per piece (excluding packing) | 222.22 g                       |
| Country of origin                    | DE                             |

# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390

<https://www.phoenixcontact.com/us/products/1434390>

## Technical data

### Notes

|         |                                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------|
| General | For applications in circuits of intrinsic safety protection type "i".<br>Electrical values following EN 60079-14. |
|---------|-------------------------------------------------------------------------------------------------------------------|

### Product properties

|                      |                         |
|----------------------|-------------------------|
| Product type         | Data cable preassembled |
| Application          | Process technology      |
| Sensor type          | FOUNDATION Fieldbus     |
| Number of positions  | 3                       |
| No. of cable outlets | 1                       |
| Coding               | A                       |

### Insulation characteristics

|                     |   |
|---------------------|---|
| Degree of pollution | 2 |
|---------------------|---|

### Interfaces

|                      |                                 |
|----------------------|---------------------------------|
| Bus system           | FOUNDATION Fieldbus             |
| Signal type/category | FOUNDATION Fieldbus, 31.25 kbps |

### Signaling

|                |    |
|----------------|----|
| Status display | No |
|----------------|----|

### Electrical properties

|                       |                           |
|-----------------------|---------------------------|
| Insulation resistance | $\geq 10 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 300 V                     |
| Nominal current $I_N$ | 5.2 A                     |
| Transmission medium   | Copper                    |

### Material specifications

|                               |                 |
|-------------------------------|-----------------|
| Seal material                 | TPU             |
| Material of grip body         | TPU             |
| Contact material              | CuZn            |
| Contact surface material      | Au              |
| Contact carrier material      | PA 66           |
| Material for screw connection | Stainless steel |

### Connection data

#### 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) |

# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390

<https://www.phoenixcontact.com/us/products/1434390>

## Connector

### Connection 1

|                     |                          |
|---------------------|--------------------------|
| Type                | Plug straight 7/8"-16UNF |
| Number of positions | 3                        |
| Coding type         | A (Standard)             |

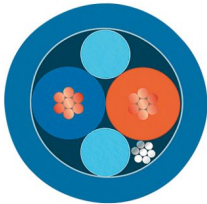
### Connection 2

|                     |                          |
|---------------------|--------------------------|
| Type                | Socket angled 7/8"-16UNF |
| Number of positions | 3                        |
| Coding type         | A (Standard)             |

## Cable/line

|              |       |
|--------------|-------|
| Cable length | 0.5 m |
|--------------|-------|

### Fieldbus FOUNDATION/PROFIBUS PA, blue [961]

|                                 |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing             |  |
| Cable weight                    | 56.552 kg/km                                                                         |
| Number of positions             | 2                                                                                    |
| Shielded                        | yes                                                                                  |
| Cable type                      | Fieldbus FOUNDATION/PROFIBUS PA, blue [961]                                          |
| Conductor structure             | 2xAWG18/7 + 1xAWG20/7                                                                |
| Signal speed                    | 0.66 c                                                                               |
| Conductor structure signal line | 7x 0.40 mm                                                                           |
| AWG signal line                 | 18                                                                                   |
| Conductor cross section         | 2x 0.75 mm² (Signal line)<br>1x 0.5 mm² (Drain wire)                                 |
| Wire diameter incl. insulation  | 2.24 mm ±0.05 mm                                                                     |
| External cable diameter         | 7.50 mm ±0.25 mm                                                                     |
| Outer sheath, material          | PVC                                                                                  |
| External sheath, color          | blue RAL 5015                                                                        |
| Conductor material              | Tin-plated Cu litz wires                                                             |
| Material wire insulation        | PO (Signal line)                                                                     |
| Single wire, color              | blue, orange                                                                         |
| Thickness, insulation           | 0.50 mm                                                                              |
| Thickness, outer sheath         | 1.00 mm                                                                              |
| Twisted pairs                   | 2 cores to the pair                                                                  |

# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390

<https://www.phoenixcontact.com/us/products/1434390>

|                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| Overall twist                               | One pair with one drain wire and fillers for core |
| Optical shield covering                     | 100 %                                             |
| Max. conductor resistance                   | ≤ 19.35 Ω/km (Signal line)                        |
|                                             | 26 Ω/km (shield)                                  |
| Cable capacity                              | 147 pF/m (at 1 kHz, core/shield)                  |
|                                             | ≤ 3.94 pF/m (capacitance unbalance)               |
| Working capacitance                         | 78 nF (at 1 kHz)                                  |
| Cable impedance                             | 100 Ω ±20 % (At 31.25 kHz)                        |
| Nominal voltage, cable                      | 300 V                                             |
| Smallest bending radius, fixed installation | 75 mm                                             |
| Tensile strength                            | 260 N                                             |
| Shield attenuation                          | 3.00 dB/km (at 39 kHz)                            |
| Flame resistance                            | UL 1685 (CSA FT 4)                                |
|                                             | UL 1685 (vertical tray)                           |
|                                             | UL 1666 (riser)                                   |
| Special properties                          | UL standards PLTC-ER and ITC                      |
| Ambient temperature (operation)             | -40 °C ... 105 °C (cable, fixed installation)     |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Degree of protection            | IP67                              |
| Enclosure rating (NEMA)         | 1 (NEMA)                          |
|                                 | 3 (NEMA)                          |
|                                 | 4 (NEMA)                          |
|                                 | 6P (NEMA)                         |
| Ambient temperature (operation) | -40 °C ... 105 °C (Plug / socket) |

# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable

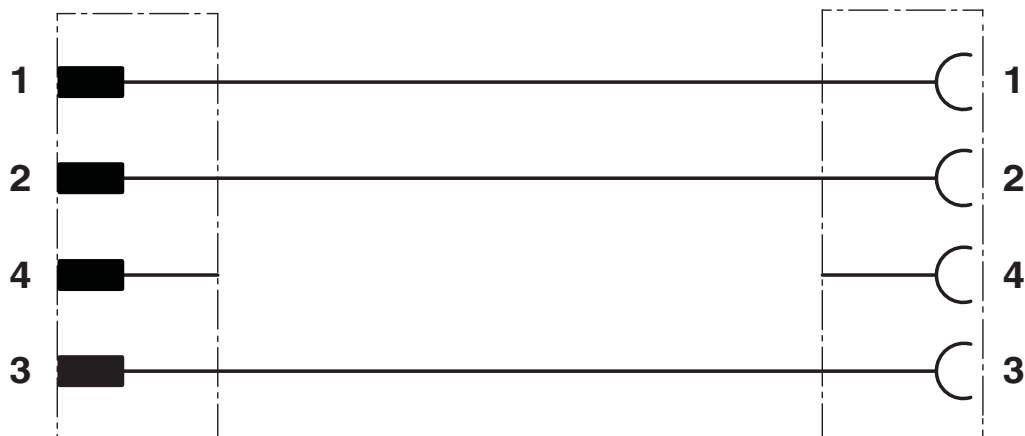


1434390

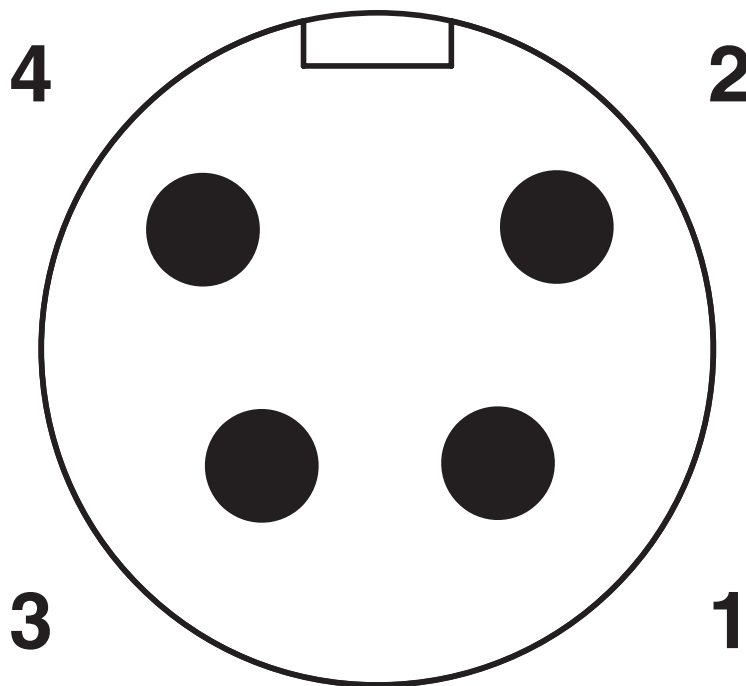
<https://www.phoenixcontact.com/us/products/1434390>

## Drawings

Circuit diagram



Schematic diagram



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

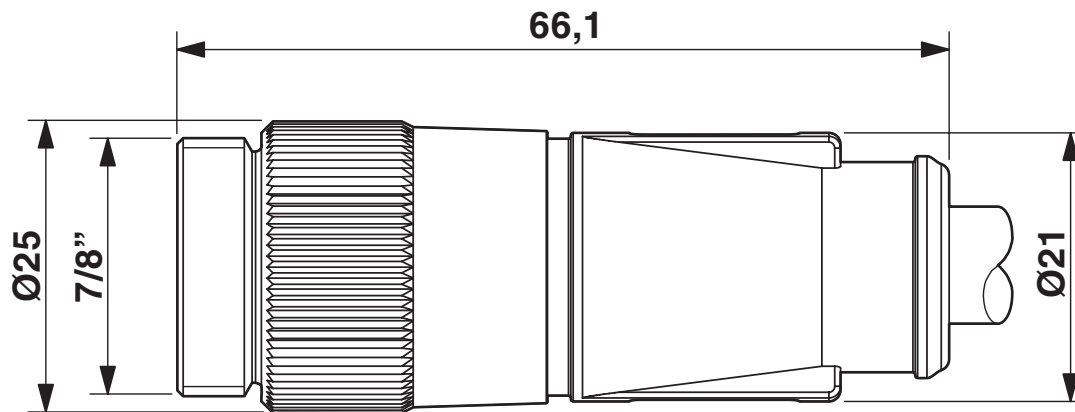
# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390

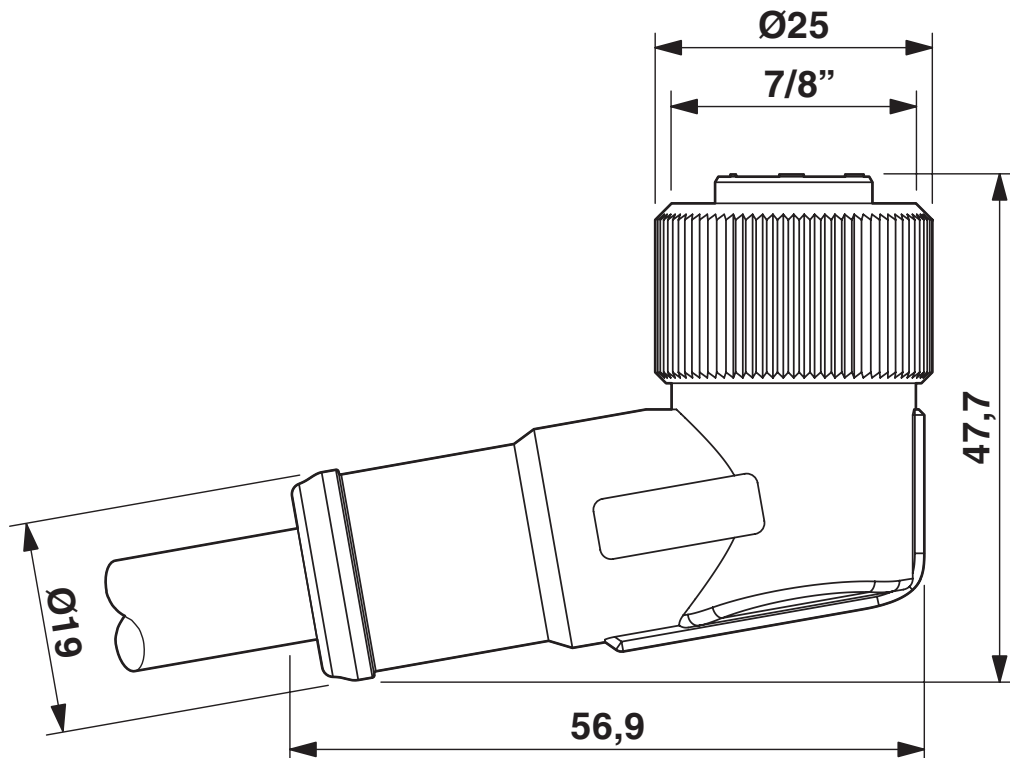
<https://www.phoenixcontact.com/us/products/1434390>

Dimensional drawing



7/8"-16UNF plug, straight

Dimensional drawing



7/8"-16UNF socket, angled

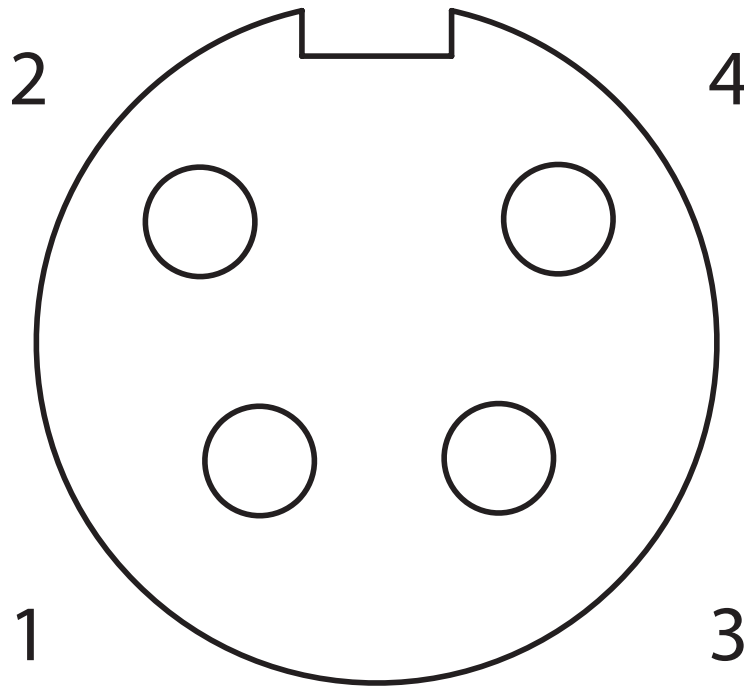
# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390

<https://www.phoenixcontact.com/us/products/1434390>

Schematic diagram



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

# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390  
<https://www.phoenixcontact.com/us/products/1434390>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060307 |
| ECLASS-13.0 | 27060307 |

# SAC-4P-MINMS/ 0,5-961/MINFRVAL - Bus system cable



1434390  
<https://www.phoenixcontact.com/us/products/1434390>

## Environmental product compliance

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| China RoHS                             |                                                                                                                                                                                                                                   |
| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |
| EU REACH SVHC                          |                                                                                                                                                                                                                                   |
| REACH candidate substance (CAS No.)    | No substance above 0.1 wt%                                                                                                                                                                                                        |

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)