

# SAC-M12FR/ 9,0-970/R4AQ - Bus system cable



1412372

<https://www.phoenixcontact.com/us/products/1412372>

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, VARAN, 6-position, SANTOPRENE halogen-free/TPE halogen-free, black RAL 9005, shielded, Plug straight RJ45 / IP20, on Socket angled M12, cable length: 9 m

As illustrated but with angled socket

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1412372       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 25 pc         |
| Product key                          | AF1CMM        |
| GTIN                                 | 4046356959322 |
| Weight per piece (including packing) | 736.8 g       |
| Weight per piece (excluding packing) | 736.8 g       |
| Country of origin                    | PL            |

## Technical data

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Data cable preassembled |
| Sensor type         | VARAN                   |
| Number of positions | 6                       |

### Insulation characteristics

|                      |   |
|----------------------|---|
| Overvoltage category | I |
| Degree of pollution  | 3 |

### Interfaces

|                      |       |
|----------------------|-------|
| Bus system           | VARAN |
| Signal type/category | VARAN |

### Signaling

|                        |    |
|------------------------|----|
| Status display         | no |
| Status display present | no |

### Electrical properties

|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 30 V AC |
|                       | 30 V DC |
| Nominal current $I_N$ | 2 A     |

### Material specifications

|  |                           |
|--|---------------------------|
| Color                                  | traffic gray B (RAL 7043) |
| Flammability rating according to UL 94 | V0                        |

### Connector

#### Connection 1

|                      |                           |
|----------------------|---------------------------|
| Type                 | Plug straight RJ45 / IP20 |
| Material             | CuZn                      |
|                      | Ni/Au                     |
|                      | PC                        |
|                      | PA                        |
| Degree of protection | IP20                      |

#### Connection 2

|          |   |
|----------|---|
| Type     | Socket angled M12                           |
| Material | CuZn  |
|          | Ni/Au                                       |
|          | TPU GF                                      |
|          | TPU, hardly inflammable, self-extinguishing |
|          | Zinc die-cast, nickel-plated                |

# SAC-M12FR/ 9,0-970/R4AQ - Bus system cable



1412372


<https://www.phoenixcontact.com/us/products/1412372>

|  |     |
|--|-----|
|  | NBR |
|--|-----|

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 9 m |
|--------------|-----|

## VARAN [970]

|                                     |  |
|-------------------------------------|--|
| Dimensional drawing                 |  |
| Cable weight                        | 81 kg/km   |
| Number of positions                 | 6  |
| Shielded                            | yes  |
| Cable type                          | VARAN [970]  |
| Conductor structure                 | 1x2xAWG22/19 + 1x4xAWG24/19  |
| Conductor structure signal line     | 19x 0.13 mm  |
| AWG signal line                     | 24   |
| Conductor structure, voltage supply | 19x 0.16 mm  |
| AWG power supply                    | 22   |
| Conductor cross-section             | 4x 0.25 mm <sup>2</sup> (Signal line)<br>2x 0.38 mm <sup>2</sup> (Power supply)    |
| Wire diameter incl. insulation      | 1.35 mm (Signal line)<br>1.5 mm (Power supply)                                     |
| External cable diameter             | 7.80 mm ±0.2 mm  |
| Outer sheath, material              | SANTOPRENE halogen-free  |
| External sheath, color              | black RAL 9005   |
| Conductor material                  | Bare Cu litz wires   |
| Material, filler                    | Yarn   |
| Material wire insulation            | PP   |
| Single wire, color                  | brown, blue, white/orange, white/green, green, orange                              |
| Type of pair shielding              | Tinned copper braided shield, 95 % covering  |
| Overall twist                       | 1 star quad and 2 wires with 2 fillers   |
| Max. conductor resistance           | 77 Ω/m (Data cable)  |
| Insulation resistance               | 5 GΩ*km (Data cable)   |
| Wave impedance                      | 100 Ω ±15 %  |
| Working capacitance                 | 50 nF (Data cable)   |
| Nominal voltage, cable              | 125 V (Data cable)<br>48 V (Power supply)  |
| Test voltage                        | 2000 V (Power supply)<br>max. 700 V AC (Data cable)                                |

# SAC-M12FR/ 9,0-970/R4AQ - Bus system cable



1412372

<https://www.phoenixcontact.com/us/products/1412372>

|   |   |
|---|---|
| Smallest bending radius, fixed installation   | ≥ 93 mm   |
| Smallest bending radius, movable installation | ≥ 93 mm   |
| Dynamic load capacity (bending)               | Max. bending cycles: 3000000, Bending radius: 93 mm, Traversing path: 2 m, Traversing rate: 1 m/s, Acceleration: 2 m/s <sup>2</sup> |
| Halogen-free                                  | in accordance with DIN EN 50267-2-1   |
| Ambient temperature (operation)               | -20 °C ... 80 °C (Cable)  |
| Ambient temperature (installation)            | 0 °C ... 50 °C  |

# SAC-M12FR/ 9,0-970/R4AQ - Bus system cable

1412372

<https://www.phoenixcontact.com/us/products/1412372>



## Drawings

Dimensional drawing



M12 x 1 socket, angled, shielded

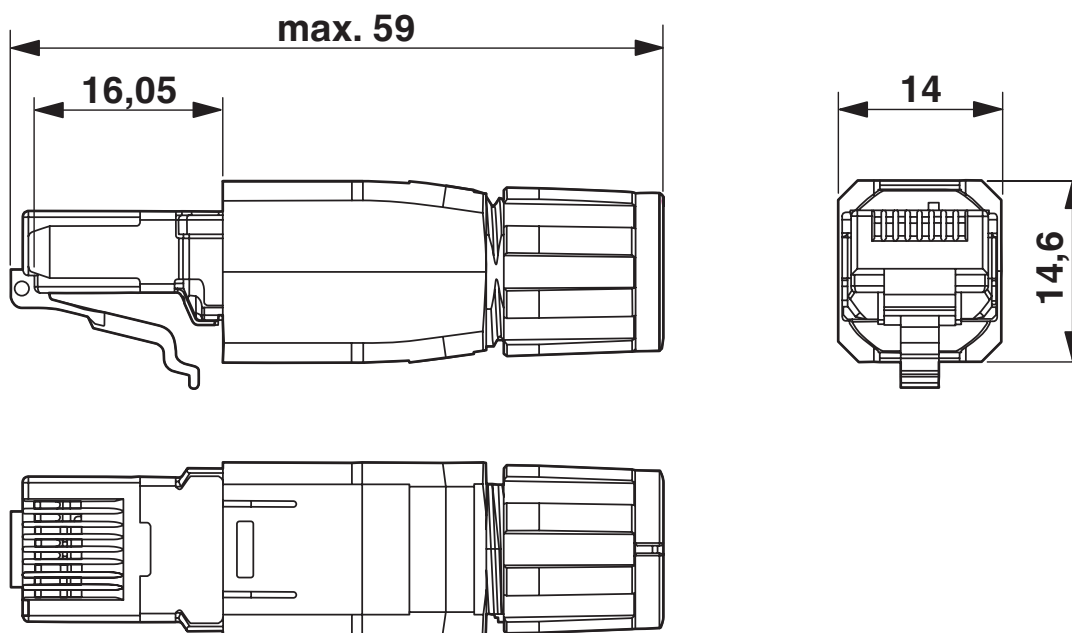
# SAC-M12FR/ 9,0-970/R4AQ - Bus system cable

1412372

<https://www.phoenixcontact.com/us/products/1412372>



Dimensional drawing

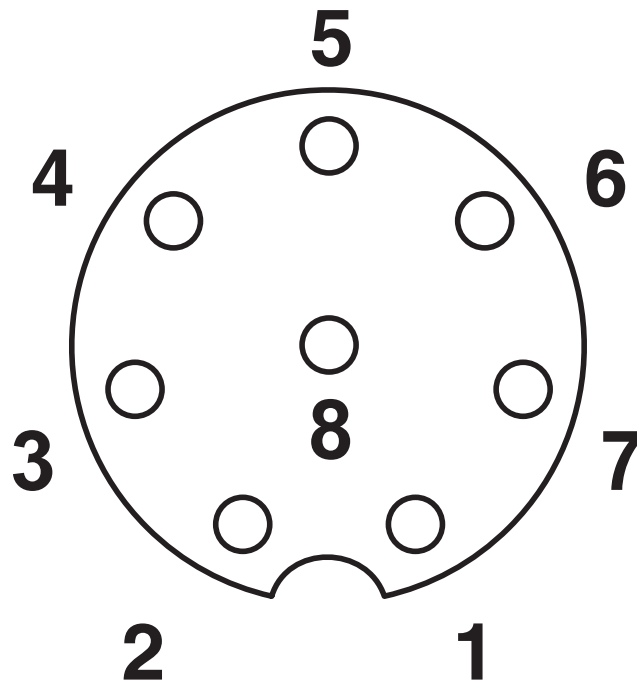


RJ45 connector, IP20

1412372

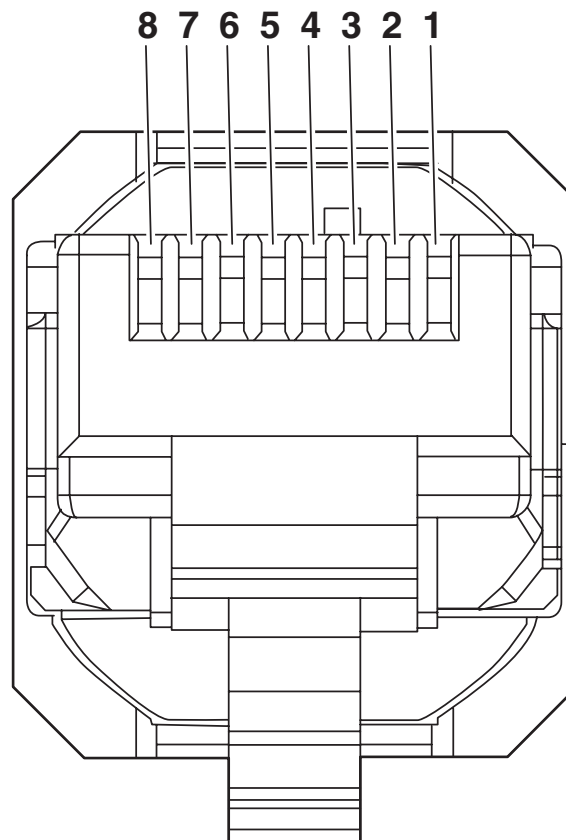
<https://www.phoenixcontact.com/us/products/1412372>

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

Schematic diagram



# SAC-M12FR/ 9,0-970/R4AQ - Bus system cable



1412372

<https://www.phoenixcontact.com/us/products/1412372>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060307 |
| ECLASS-15.0 | 27060307 |

Phoenix Contact 2026 © - 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)