

1575615

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Bus system cable, VARAN, 6-pos., TPE halogen-free black, shielded, straight M12 SPEEDCON plug on RJ45 plug, IP20, cable length: 5 m

Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1575615                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Product key                          | AF1CMM                         |
| GTIN                                 | 4046356435789                  |
| Weight per piece (including packing) | 407 g                          |
| Weight per piece (excluding packing) | 428 g                          |
| Country of origin                    | PL                             |

# SAC-6P-M12FS/ 5,0-970/RJ45Q - Bus system cable



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## Technical data

### Product properties

|                      |                         |
|----------------------|-------------------------|
| Product type         | Data cable preassembled |
| Sensor type          | VARAN                   |
| Number of positions  | 6                       |
| No. of cable outlets | 1                       |
| Coding               | A                       |

### Insulation characteristics

|                      |   |
|----------------------|---|
| Overvoltage category | I |
| Degree of pollution  | 1 |

### Interfaces

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

### Signaling

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

### Electrical properties

|                       |                            |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 30 V AC                    |
|                       | 30 V DC                    |
| Nominal current $I_N$ | 2 A                        |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 100$ |
|-----------------------------|------------|

### Material specifications

|                                        |                         |
|----------------------------------------|-------------------------|
| Color                                  | traffic grey A RAL 7042 |
| Flammability rating according to UL 94 | V0                      |

### Connector

#### Connection 1

|             |                                             |
|-------------|---------------------------------------------|
| Type        | Socket straight M12                         |
| Coding type | A (Standard)                                |
| Material    | CuZn (Contact)                              |
|             | Ni/Au (Contact surface)                     |
|             | TPU GF                                      |
|             | TPU, hardly inflammable, self-extinguishing |

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|  |                              |
|--|------------------------------|
|  | Zinc die-cast, nickel-plated |
|  | NBR                          |

## Connection 2

|          |                         |
|----------|-------------------------|
| Type     | Plug straight RJ45      |
| Material | CuSn (Contact)          |
|          | Ni/Au (Contact surface) |
|          | PC (Contact carrier)    |
|          | PA (Housing)            |

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 5 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)                                                                 |

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|                                               |                                                                                                                         |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 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)                                                                                                      |
|                                               | 48 V (Power supply)                                                                                                     |
| Test voltage                                  | 2000 V (Power supply)                                                                                                   |
|                                               | max. 700 V AC (Data cable)                                                                                              |
| 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/s² |
| 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                                                                                                          |

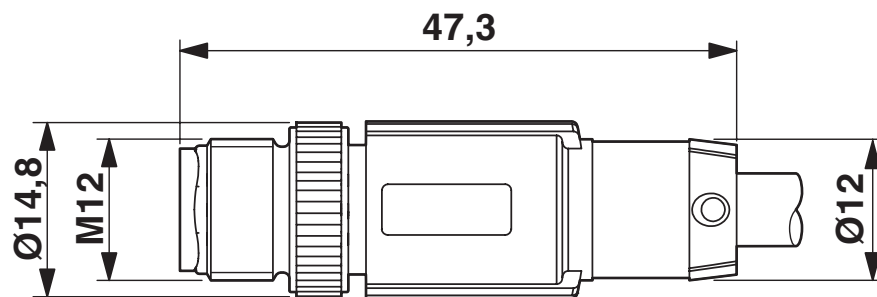
## Environmental and real-life conditions

### Ambient conditions

|                                                                   |                                              |
|-------------------------------------------------------------------|----------------------------------------------|
| Degree of protection                                              | IP20                                         |
| Ambient temperature (operation) (Cable, fixed installation)       | 0 °C ... 50 °C (for installation)            |
|                                                                   | -20 °C ... 80 °C (cable, fixed installation) |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket)             |
|                                                                   | -20 °C ... 70 °C (RJ45)                      |

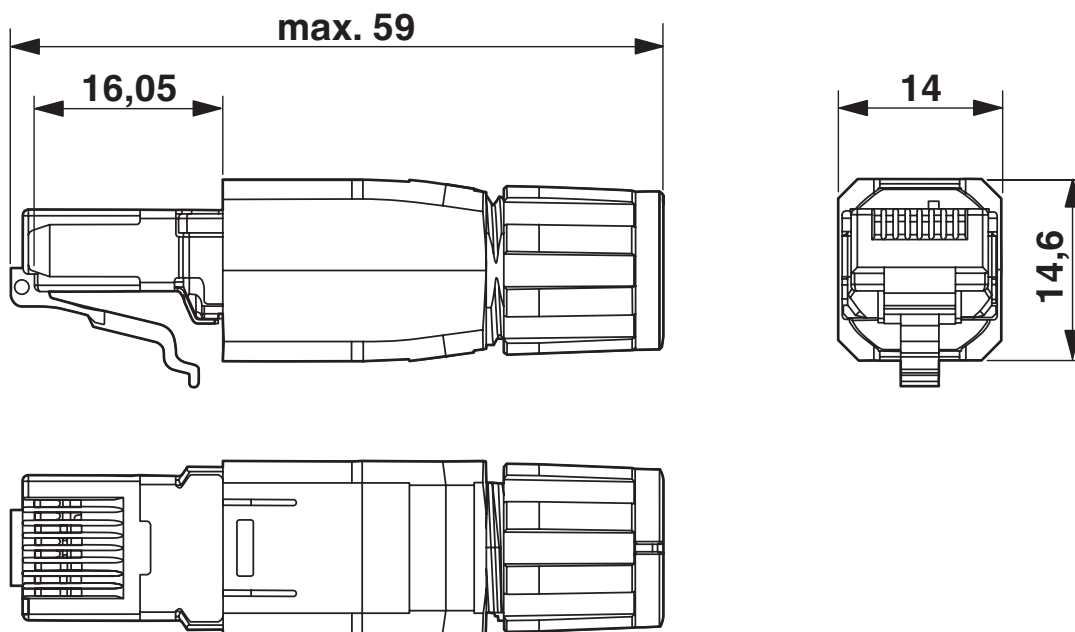
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing

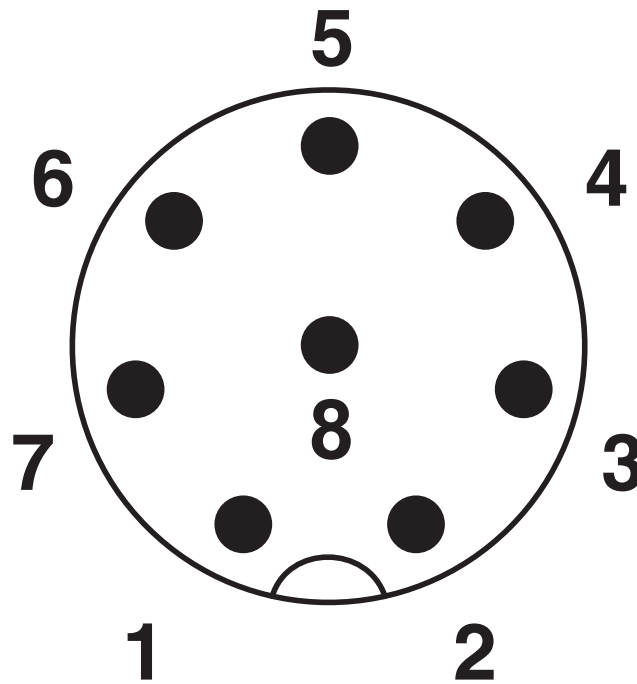


RJ45 connector, IP20

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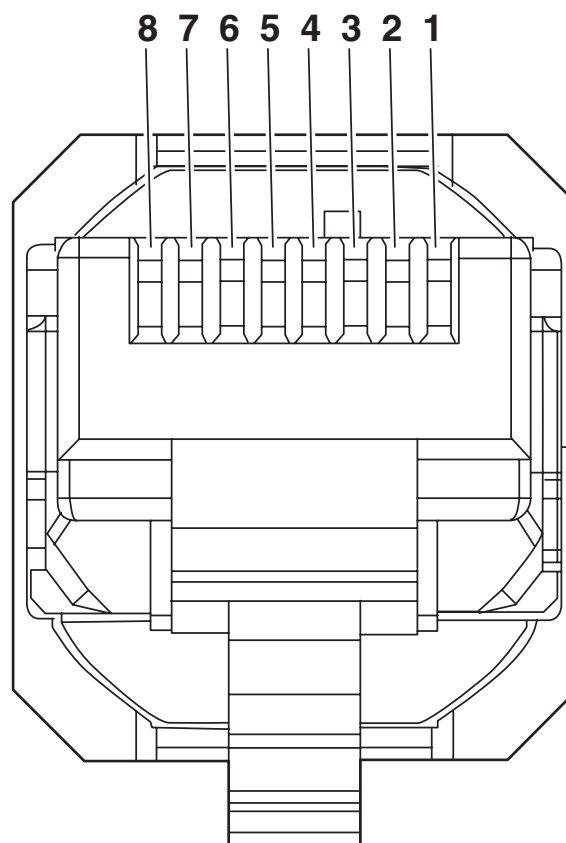
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Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

Schematic diagram



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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

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## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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