

# SAC-5P-M12MSB/ 2,0-900 - Bus system cable



1507065

<https://www.phoenixcontact.com/us/products/1507065>

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, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on free cable end, cable length: 2 m

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1507065       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF04          |
| Product key                          | AF1CKB        |
| GTIN                                 | 4017918899936 |
| Weight per piece (including packing) | 148.4 g       |
| Weight per piece (excluding packing) | 163.02 g      |
| Customs tariff number                | 85444290      |
| Country of origin                    | PL            |

# SAC-5P-M12MSB/ 2,0-900 - Bus system cable



1507065

<https://www.phoenixcontact.com/us/products/1507065>

## Technical data

### Product properties

|                      |                         |
|----------------------|-------------------------|
| Product type         | Data cable preassembled |
| Application          | Standard                |
| Sensor type          | INTERBUS                |
| Number of positions  | 5                       |
| No. of cable outlets | 1                       |
| Shielded             | yes                     |
| Coding               | B                       |

### Insulation characteristics

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

### Interfaces

|                      |                   |
|----------------------|-------------------|
| Bus system           | INTERBUS          |
| Signal type/category | INTERBUS, 16 Mbps |

### Signaling

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

### Electrical properties

|                       |          |
|-----------------------|----------|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 48 V AC  |
|                       | 60 V DC  |
| Nominal current $I_N$ | 4 A      |
| Transmission medium   | Copper   |
| Transmission speed    | 16 Mbps  |

### Mechanical properties

#### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|-------|

### Material specifications

|  |   |
|--|---|
| Flammability rating according to UL 94 | V0  |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuSn  |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | PA 6.6                                      |
| Material for screw connection          | Zinc die-cast, nickel-plated                |

### Connection data

# SAC-5P-M12MSB/ 2,0-900 - Bus system cable



1507065

<https://www.phoenixcontact.com/us/products/1507065>

## Connection assignment

| Contact   Color (signal designation)   Contact (optional) |                             |
|---|-----------------------------|
|   | 1 (Plug)   YE ( <u>DO</u> ) |
|   | 2 (Plug)   GN ( <u>DO</u> ) |
|   | 3 (Plug)   GY (DI)          |
|   | 4 (Plug)   PK ( <u>DI</u> ) |
|   | 5 (Plug)   BN (GND)         |

## Connector

### Connection 1

|                     |                   |
|---------------------|-------------------|
| Type                | Plug straight M12 |
| Number of positions | 5                 |
| Coding type         | B (inverse)       |

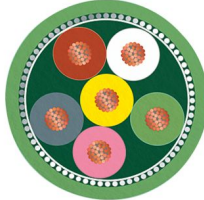
### Connection 2

|      |                |
|------|----------------|
| Type | free cable end |
|------|----------------|

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 2 m |
|--------------|-----|

## INTERBUS [900]

|                                 |  |
|---------------------------------|--|
| Dimensional drawing             |  |
| Cable weight                    | 70 kg/km   |
| Number of positions             | 6  |
| Shielded                        | yes  |
| Cable type                      | INTERBUS [900]   |
| Conductor structure             | 3 x 2 x 0.22 mm <sup>2</sup>   |
| Signal speed                    | 0.66 c   |
| Conductor structure signal line | 32x 0.10 mm  |
| AWG signal line                 | 24   |
| Conductor cross-section         | 3x 2x 0.22 mm <sup>2</sup>   |
| External cable diameter         | 8.00 mm  |
| Outer sheath, material          | PUR  |
| External sheath, color          | may green RAL 6017   |
| Conductor material              | Bare Cu litz wires   |
| Material wire insulation        | PE   |
| Single wire, color              | green-yellow, white-brown, gray-pink   |
| Twisted pairs                   | 2 cores to the pair  |

# SAC-5P-M12MSB/ 2,0-900 - Bus system cable



1507065

<https://www.phoenixcontact.com/us/products/1507065>

|   |  |
|---|--|
| Overall twist                                 | 3 pairs to the core  |
| Insulation resistance                         | $\geq 5 \text{ G}\Omega \cdot \text{km}$   |
| Coupling resistance                           | $< 250.00 \text{ m}\Omega/\text{m}$ (at 30 MHz)  |
| Loop resistance                               | $\leq 159.80 \text{ }\Omega/\text{km}$   |
| Wave impedance                                | $120 \text{ }\Omega \pm 20 \%$ (at 64 kHz)   |
|   | $100 \text{ }\Omega \pm 15 \%$ (with 1 MHz)  |
| Cable capacity                                | $\leq 60 \text{ nF}/\text{km}$ (At 800 Hz)   |
| Nominal voltage, cable                        | 250 V (Peak value, not for high-power applications)  |
| Test voltage Core/Core                        | $1500 \text{ V}_{\text{rms}}$  |
| Test voltage Core/Shield                      | $1000.00 \text{ V}_{\text{rms}}$   |
| Minimum bending radius, fixed installation    | $7.5 \times D$   |
| Minimum bending radius, flexible installation | $15 \times D$  |
| Smallest bending radius, fixed installation   | 60 mm  |
| Smallest bending radius, movable installation | 120 mm   |
| Dynamic load capacity (bending)               | Max. bending cycles: 5000000, Bending radius: 120 mm, Traversing path: 10 m, Traversing rate: 1.6 m/s, Acceleration: $3.2 \text{ m/s}^2$ |
| Near end crosstalk attenuation (NEXT)         | $\geq 61 \text{ dB}$ (at 772 kHz)  |
|   | $\geq 59 \text{ dB}$ (with 1 MHz)  |
|   | $\geq 55 \text{ dB}$ (at 2 MHz)  |
|   | $\geq 50 \text{ dB}$ (at 4 MHz)  |
|   | $\geq 46 \text{ dB}$ (at 8 MHz)  |
|   | $\geq 44 \text{ dB}$ (at 10 MHz)   |
|   | $\geq 41 \text{ dB}$ (at 16 MHz)   |
| Shield attenuation                            | $\leq 15 \text{ dB}/\text{km}$ (at 256 kHz)  |
|   | $\leq 24 \text{ dB}/\text{km}$ (at 772 kHz)  |
|   | $\leq 27 \text{ dB}/\text{km}$ (with 1 MHz)  |
|   | $\leq 52 \text{ dB}/\text{km}$ (at 4 MHz)  |
|   | $\leq 84 \text{ dB}/\text{km}$ (at 10 MHz)   |
|   | $\leq 112 \text{ dB}/\text{km}$ (at 16 MHz)  |
|   | $\leq 119 \text{ dB}/\text{km}$ (at 20 MHz)  |
| Flame resistance                              | according to VDE 0472, Part 4, test type B   |
|   | according to IEC 60332-1   |
| Ambient temperature (operation)               | $-40 \text{ }^\circ\text{C} \dots 80 \text{ }^\circ\text{C}$ (cable, fixed installation)   |
|   | $-30 \text{ }^\circ\text{C} \dots 70 \text{ }^\circ\text{C}$ (Cable, flexible installation)  |

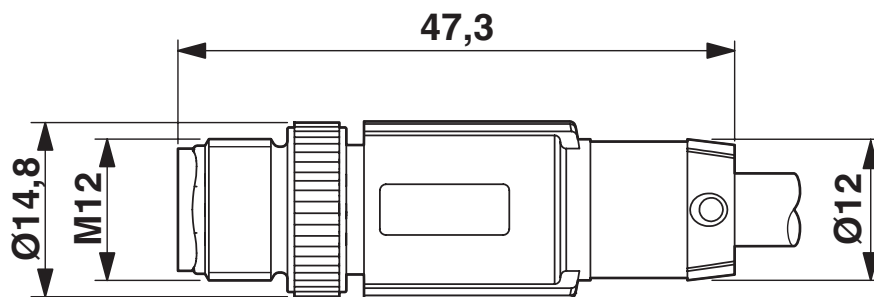
# SAC-5P-M12MSB/ 2,0-900 - Bus system cable

1507065

<https://www.phoenixcontact.com/us/products/1507065>

## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

1507065

<https://www.phoenixcontact.com/us/products/1507065>

Schematic diagram



Pin assignment M12 male connector, 5-pos., B-coded, male side

Circuit diagram



Contact assignment of the M12 plug

# SAC-5P-M12MSB/ 2,0-900 - Bus system cable



1507065

<https://www.phoenixcontact.com/us/products/1507065>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1507065>



**EAC-RoHS**

Approval ID: RU D-DE.HB35.B.00387

# SAC-5P-M12MSB/ 2,0-900 - Bus system cable



1507065

<https://www.phoenixcontact.com/us/products/1507065>

## Classifications

### ECLASS

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

### UNSPSC

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

# SAC-5P-M12MSB/ 2,0-900 - Bus system cable



1507065

<https://www.phoenixcontact.com/us/products/1507065>

## 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% |
|-------------------------------------|----------------------------|

### EF3.1 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 1.004 kg CO2e |
|---------|---------------|

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)