

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



1507065

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

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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 |

Technical data

Notes

| | |
|---------|---|
| General | Further products with variable cable type and variable cable length can be found in the accessories section |
|---------|---|

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 | $\geq 100 \text{ M}\Omega$ |
| 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 |

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| | |
|-------------------------------|------------------------------|
| Contact carrier material | PA 6.6 |
| Material for screw connection | Zinc die-cast, nickel-plated |

Connection data

Connection assignment

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

Connector

Connection 1

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

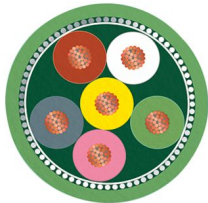
Connection 2

| | |
|------|----------------|
| 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 ² |
| 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 ² |
| External cable diameter | 8.00 mm |
| Outer sheath, material | PUR |
| External sheath, color | may green RAL 6017 |

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| | |
|---|--|
| 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 |
| 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: $3.2 \text{ m}/\text{s}^2$ |
| 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) $\geq 40 \text{ dB}$ (at 20 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) |

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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug

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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

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Classifications

ECLASS

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

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | 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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

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

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