

# Bus system flat-type plug - SACCEC-M12MSB-2CON-M16/1,0-910 - 1525568

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Bus system flush-type plug, PROFIBUS, 2-pos., M12, shielded, B-coded, front/screw mounting with M16 thread, with 1 m bus cable, 2 x 0.25 mm<sup>2</sup>

## Why buy this product

- Pre-assembled with cables in various standard lengths for immediate use
- Customer-specific assemblies and cable lengths can be supplied
- Sealed on the cable side for optimum tightness of seal
- Cable designs for all common networks and fieldbuses
- For high transmission safety: shield connection to the housing with optional EMC nut



## Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 STK                                                                                                   |
| GTIN                                 | <br>4 046356 022309 |
| Weight per Piece (excluding packing) | 84.7 g                                                                                                  |
| Custom tariff number                 | 85444290                                                                                                |
| Country of origin                    | Germany                                                                                                 |

## Technical data

### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 1 m |
|-----------------|-----|

### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket) |
| Degree of protection            | IP67                             |

### General

|      |                                                                                                                                                  |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Note | The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------|

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## Technical data

### General

|                             |                                                                                                                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration. |
| Rated current at 40°C       | 4 A                                                                                                                                                                                               |
| Rated voltage               | 60 V                                                                                                                                                                                              |
| Rated surge voltage         | 1.5 kV                                                                                                                                                                                            |
| Number of positions         | 2                                                                                                                                                                                                 |
| Insulation resistance       | ≥ 100 MΩ                                                                                                                                                                                          |
| Coding                      | B - inverse                                                                                                                                                                                       |
| Standards/regulations       | M12 connector IEC 61076-2-101                                                                                                                                                                     |
| Status display              | No                                                                                                                                                                                                |
| Overvoltage category        | II                                                                                                                                                                                                |
| Degree of pollution         | 3                                                                                                                                                                                                 |
| Test voltage                | 2500 V                                                                                                                                                                                            |
| Connection method           | PROFIBUS                                                                                                                                                                                          |
| Insertion/withdrawal cycles | > 100                                                                                                                                                                                             |
| Mounting type               | Front mounting M16 x 1.5 With locking nut                                                                                                                                                         |

### Material

|                                        |                     |
|----------------------------------------|---------------------|
| Flammability rating according to UL 94 | V0                  |
| Contact material                       | CuZn                |
| Contact surface material               | Ni/Au               |
| Contact carrier material               | PA 66               |
| Material, knurls                       | Nickel-plated brass |
| Sealing material                       | NBR                 |

### Standards and Regulations

|                                        |                 |
|----------------------------------------|-----------------|
| Standard designation                   | M12 connector   |
| Standards/regulations                  | IEC 61076-2-101 |
| Flammability rating according to UL 94 | V0              |

### Cable

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Cable type                         | PROFIBUS                              |
| Cable type (abbreviation)          | 910                                   |
| UL AWM style                       | 21198 (80°C/300 V)                    |
| Signal type/category               | PROFIBUS                              |
| Cable structure                    | 1x2xAWG24/19                          |
| Conductor cross section            | 2x 0.25 mm <sup>2</sup> (Signal line) |
| AWG signal line                    | 24                                    |
| Conductor structure signal line    | 19x 0.13 mm                           |
| Core diameter including insulation | 2.55 mm ±0.07 mm                      |
| Wire colors                        | Red, green                            |

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### Technical data

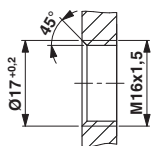
#### Cable

|                                               |                                                            |
|-----------------------------------------------|------------------------------------------------------------|
| Overall twist                                 | 2 cores with 2 fillers to the core                         |
| Shielding                                     | Plastic-coated aluminum foil, tinned copper braided shield |
| Optical shield covering                       | 85 %                                                       |
| External sheath, color                        | violet RAL 4001                                            |
| External cable diameter D                     | 7.8 mm ±0.2 mm                                             |
| Smallest bending radius, fixed installation   | 40 mm                                                      |
| Smallest bending radius, movable installation | 65 mm                                                      |
| Number of bending cycles                      | 4000000                                                    |
| Bending radius                                | 65 mm                                                      |
| Traversing path                               | 4.5 m                                                      |
| Traversing rate                               | 3 m/s                                                      |
| Acceleration                                  | 3 m/s <sup>2</sup>                                         |
| Outer sheath, material                        | PUR                                                        |
| Material, filler                              | PP                                                         |
| Material conductor insulation                 | Foam-Skin PP                                               |
| Conductor material                            | Tin-plated Cu litz wires                                   |
| Insulation resistance                         | ≥ 5 GΩ*km                                                  |
| Conductor resistance                          | ≤ 78.6 Ω/km                                                |
| Cable capacity                                | nom. 30 pF/m                                               |
| Wave impedance                                | 150 Ω ±10 % (3 MHz ... 20 MHz)                             |
| Wave attenuation                              | ≤ 0.049 dB/m (at 16 MHz)                                   |
| Nominal voltage, cable                        | 30 V                                                       |
| Test voltage Core/Core                        | 1500 V (50 Hz, 1 min.)                                     |
| Test voltage Core/Shield                      | 1500 V (50 Hz, 1 min.)                                     |
| Flame resistance                              | UL 1581, Sec. 1060 (FT-1)                                  |
|                                               | IEC 60332-1-2                                              |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                   |
|                                               | According to IEC 60754-1                                   |
| Other resistance                              | Low adhesion                                               |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)               |
|                                               | -30 °C ... 80 °C (cable, flexible installation)            |
|                                               | ≤ 70 °C (cable, drag chain applications)                   |
| Ambient temperature (storage/transport)       | -40 °C ... 80 °C                                           |

#### Drawings

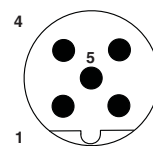
# Bus system flat-type plug - SACCEC-M12MSB-2CON-M16/1,0-910 - 1525568

Dimensional drawing



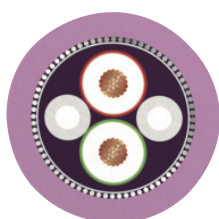
Housing cutout for M16 fastening thread, mounting panel with thread

Schematic diagram



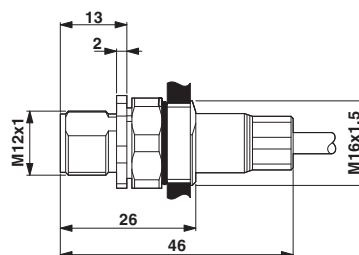
Pin assignment M12 male connector, 5-pos., B-coded, male side

Cable cross section



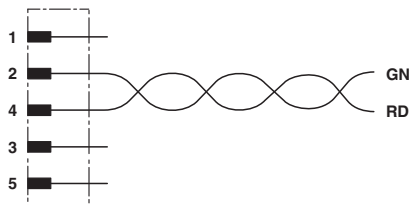
PROFIBUS [910]

Dimensional drawing



M12 flush-type plug

Circuit diagram



Contact assignment of the M12 plug

## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27140815 |
| eCl@ss 4.1 | 27140815 |
| eCl@ss 5.0 | 27143423 |
| eCl@ss 5.1 | 27143423 |
| eCl@ss 6.0 | 27143423 |
| eCl@ss 7.0 | 27449001 |
| eCl@ss 8.0 | 27440103 |
| eCl@ss 9.0 | 27440102 |

ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001297 |
|----------|----------|

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC002061 |
| ETIM 4.0 | EC000830 |
| ETIM 5.0 | EC002061 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

## Approvals

### Approvals

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#### Approvals

#### EAC / EAC

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#### Ex Approvals

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#### Approvals submitted

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## Approval details

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