

# SACCBP-FS-12CON-M16/2,0-PVCSCO - Device connector rear mounting



1442191

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Device connector rear mounting, Universal, 12-position, PVC/PVC, black RAL 9005, shielded, Socket, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 2 m, 0.14 mm<sup>2</sup>, PVC black, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239766

## Your advantages

- Preassembled 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
- For high transmission safety: shield connection to the housing with optional EMC nut

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 1442191            |
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | *****              |
| Product key                          | ABQDGG             |
| Catalog page                         | Page 51 (C-2-2019) |
| GTIN                                 | 4046356533393      |
| Weight per piece (including packing) | 162.5 g            |
| Weight per piece (excluding packing) | 161.6 g            |
| Customs tariff number                | 85444290           |
| Country of origin                    | DE                 |

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## Technical data

### Notes

|                    |                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes on operation | The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if 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. |
| Order information: | Lock nut is included in the scope of delivery                                                                                                                                                                                                                                                                                                      |

### Mounting

|               |                                              |
|---------------|----------------------------------------------|
| Mounting type | Rear mounting M16 x 1.5 Thread with flat nut |
| Assembly note | Thread with flat nut                         |

### Product properties

|                      |                                   |
|----------------------|-----------------------------------|
| Product type         | Circular connectors (device side) |
| Sensor type          | Universal                         |
| Number of positions  | 12                                |
| No. of cable outlets | 1                                 |
| Shielded             | yes                               |
| Coding               | A                                 |
| Thread type          | M12                               |

### Data management status

|                  |    |
|------------------|----|
| Article revision | 08 |
|------------------|----|

### Insulation characteristics

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

### Material specifications

|                                        |                              |
|----------------------------------------|------------------------------|
| Flammability rating according to UL 94 | V0                           |
| Seal material                          | FKM                          |
| Contact material                       | CuZn                         |
| Contact surface material               | Au                           |
| Contact carrier material               | PA 6.6                       |
| Material for screw connection          | Zinc die-cast, nickel-plated |
| Outer sheath, material                 | PVC                          |
| Conductor material                     | Tin-plated Cu litz wires     |

### Electrical properties

|                       |          |
|-----------------------|----------|
| Rated surge voltage   | 0.8 kV   |
| Contact resistance    | ≤ 3 mΩ   |
| Insulation resistance | ≥ 100 MΩ |

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|                           |                  |
|---------------------------|------------------|
| Nominal voltage $U_N$     | 30 V             |
| Nominal current $I_N$     | 1.5 A            |
| Max. conductor resistance | 142 $\Omega$ /km |

## Connection data

### Conductor connection

|                         |                                   |
|-------------------------|-----------------------------------|
| Connection method       | Cable connection                  |
| Contact connection type | Socket                            |
| Conductor cross section | 6x 2x 0.14 mm <sup>2</sup>        |
| Tightening torque       | 3 Nm ... 4 Nm (Installation-side) |

## Mechanical properties

### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | > 100 |
|-----------------------------|-------|

## Connector

### Connection 1

|                   |          |
|-------------------|----------|
| Head design       | Socket   |
| Head cable outlet | straight |
| Head thread type  | M12      |
| Head locking type | SPEEDCON |
| Coding            | A        |

### Connection 2

|             |                |
|-------------|----------------|
| Head design | free cable end |
|-------------|----------------|

## Cable/line

|                                 |                                                                                  |
|---------------------------------|----------------------------------------------------------------------------------|
| Cable length                    | 2 m                                                                              |
| Cable type                      | PVC black                                                                        |
| Short symbol                    | PVC                                                                              |
| Signal type/category            | Universal                                                                        |
| External cable diameter         | 7.00 mm $\pm$ 0.03 mm                                                            |
| Outer sheath, material          | PVC                                                                              |
| External sheath, color          | black RAL 9005                                                                   |
| Wire diameter incl. insulation  | 1 mm $\pm$ 0.05 mm                                                               |
| Single wire, color              | white-brown, green-yellow, gray-pink, blue-red, black-violet, gray/pink-red/blue |
| Cable cross section             | 6x 2x 0.14 mm <sup>2</sup>                                                       |
| Material, inner sheath          | PVC                                                                              |
| Conductor material              | Tin-plated Cu litz wires                                                         |
| Conductor structure signal line | 18x 0.10 mm                                                                      |
| Material wire insulation        | PVC                                                                              |

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|                                               |                                                             |
|-----------------------------------------------|-------------------------------------------------------------|
| Thickness, insulation                         | 0.21 mm                                                     |
| Overall twist                                 | Six pairs around the filler to the core                     |
| Shielding                                     | Tinned copper braided shield                                |
| Optical shield covering                       | 85 %                                                        |
| Nominal voltage, cable                        | 300 V                                                       |
| Test voltage, cable                           | 1500 V AC                                                   |
| Cable resistance                              | 142 $\Omega$ /km (at 20 °C)                                 |
| Smallest bending radius, fixed installation   | 42 mm                                                       |
| Smallest bending radius, movable installation | 105 mm                                                      |
| Resistance to oil                             | in accordance with DIN EN 60811-404                         |
| Flame resistance                              | IEC 60332-1-2, IEC 60332-1, FT1, VW-1                       |
| Other resistance                              | Hydrolysis and microbe resistant as per VDE 0282 section 10 |
| Ambient temperature (operation)               | -40 °C ... 85 °C (cable, fixed installation)                |
|                                               | -25 °C ... 85 °C (Cable, flexible installation)             |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Degree of protection            | IP67 (When plugged in)                          |
|                                 | IP65 (When plugged in)                          |
|                                 | IP65/IP67                                       |
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket)                |
|                                 | -40 °C ... 85 °C (without mechanical actuation) |
|                                 | -25 °C ... 85 °C (Cable, flexible installation) |
|                                 | -40 °C ... 85 °C (cable, fixed installation)    |
| Resistance to oil               | in accordance with DIN EN 60811-404             |

## Standards and regulations

|                          |                                                             |
|--------------------------|-------------------------------------------------------------|
| Flame resistance         | IEC 60332-1-2, IEC 60332-1, FT1, VW-1                       |
| Resistance to oil        | in accordance with DIN EN 60811-404                         |
| Other resistance         | Hydrolysis and microbe resistant as per VDE 0282 section 10 |
| Standard designation     | M12 connector                                               |
| Standards/specifications | IEC 61076-2-101                                             |

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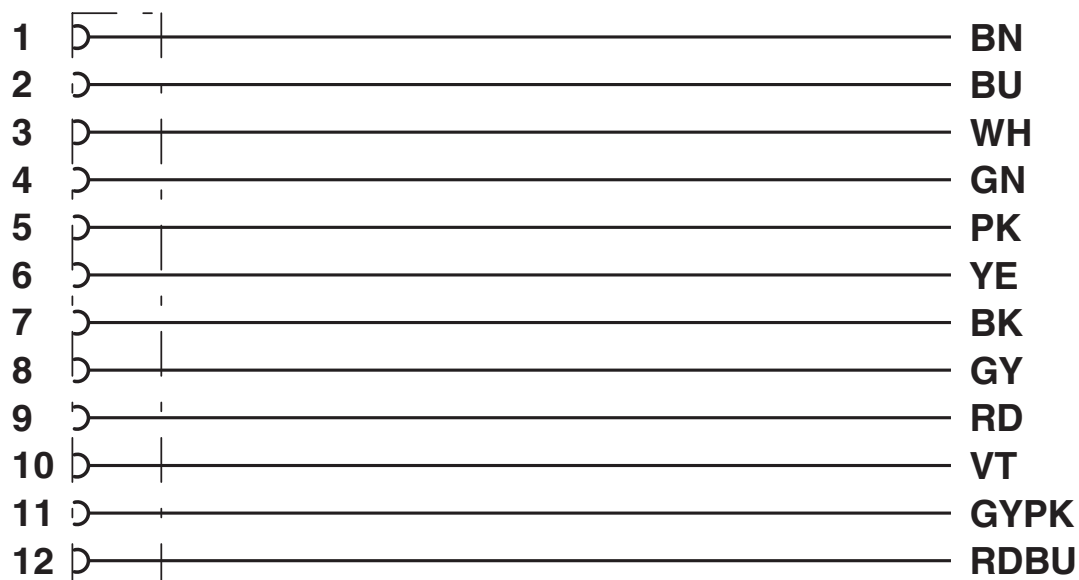


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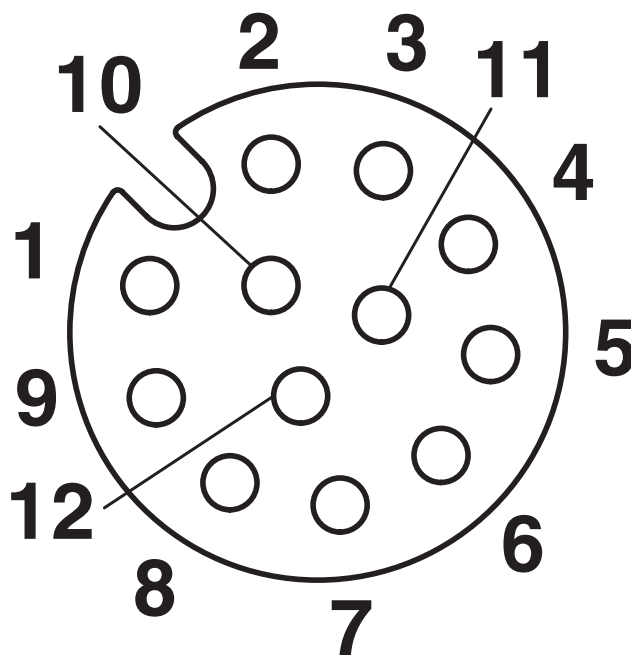
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## Drawings

Circuit diagram



Schematic diagram



Pin assignment M12 socket, 12-pos., A-coded, view female side

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/1442191>

|                                                                                                                                          |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cUL Recognized</b><br>Approval ID: E221474-20220907 |                       |                       |                   |                             |
|                                                                                                                                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                          | 30 V                  | 1.5 A                 | -                 | -                           |

|                                                                                                                                         |                       |                       |                   |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>UL Recognized</b><br>Approval ID: E221474-20220907 |                       |                       |                   |                             |
|                                                                                                                                         | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                         | 30 V                  | 1.5 A                 | -                 | -                           |

|                         |  |  |  |  |
|-------------------------|--|--|--|--|
| <b>cULus Recognized</b> |  |  |  |  |
|-------------------------|--|--|--|--|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27440102 |
| ECLASS-12.0 | 27440116 |
| ECLASS-13.0 | 27440116 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002635 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## Environmental product compliance

|                                         |                                                                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EU RoHS                                 |                                                                                                                                                                                                                                   |
| Fulfills EU RoHS substance requirements | Yes                                                                                                                                                                                                                               |
| Exemption                               | 6(c)                                                                                                                                                                                                                              |
| China RoHS                              |                                                                                                                                                                                                                                   |
| Environment friendly use period (EFUP)  | EFUP-50                                                                                                                                                                                                                           |
|                                         | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |
| EU REACH SVHC                           |                                                                                                                                                                                                                                   |
| REACH candidate substance (CAS No.)     | Lead(CAS: 7439-92-1)                                                                                                                                                                                                              |
| SCIP                                    | a44489d5-1eef-4669-96a7-138cadcaa1d8                                                                                                                                                                                              |

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