

## Flush-type connector - SACC-DSI-M12FS-12CON-M16/0,5 - 1419713

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Sensor/actuator flush-type socket, 12-pos., M12 SPEEDCON, rear/screw mounting with M16 thread, with 0.5 m halogen-free TPE litz wire, 12 x 0.14 mm<sup>2</sup>

### Your advantages

- ✓ Pre-assembled with litz wires for immediate use
- ✓ Customer-specific assemblies and litz wire lengths available
- ✓ Sealed on the litz wire side for optimum leak-tightness
- ✓ All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- ✓ For high transmission safety: shield connection to the housing with optional EMC nut
- ✓ SPEEDCON fast locking system reduces cabling times



### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 046356 533560 |
| GTIN         | 4046356533560                                                                                           |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 0.5 m |
|-----------------|-------|

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket) |
| Degree of protection            | IP67 (When plugged in)           |
|                                 | IP65 (When plugged in)           |

#### 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 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. |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## Technical data

### General

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current at 40°C       | 1.5 A                                 |
| Rated voltage               | 30 V                                  |
| Rated surge voltage         | 0.8 kV                                |
| Number of positions         | 12                                    |
| Insulation resistance       | ≥ 100 MΩ                              |
| Coding                      | A - standard                          |
| Standards/regulations       | M12 connector IEC 61076-2-101         |
| Signal type/category        | Universal                             |
| Status display              | No                                    |
| Overvoltage category        | II                                    |
| Degree of pollution         | 3                                     |
| Connection method           | Individual wires                      |
| Insertion/withdrawal cycles | > 100                                 |
| Torque                      | 3 Nm ... 4 Nm (Installation-side)     |
| Mounting type               | Rear mounting M16 x 1.5 With flat nut |

### Material

|                                        |                              |
|----------------------------------------|------------------------------|
| Flammability rating according to UL 94 | V0                           |
| Contact material                       | CuZn                         |
| Contact surface material               | Au                           |
| Contact carrier material               | PA 6.6                       |
| Material, knurls                       | Zinc die-cast, nickel-plated |
| Sealing material                       | FKM                          |

### Cable

|                                    |                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------|
| Cable type                         | TPE litz wire                                                                          |
| Conductor cross section            | 0.14 mm²                                                                               |
| AWG signal line                    | 26                                                                                     |
| Conductor structure signal line    | 7x 0.16 mm                                                                             |
| Core diameter including insulation | 1.1 mm ±0.05 mm                                                                        |
| Thickness, insulation              | 0.21 mm (Core insulation)                                                              |
| Wire colors                        | Brown, blue, white, green, pink, yellow, black, gray, red, violet, gray/pink, red/blue |
| Material conductor insulation      | TPE                                                                                    |
| Conductor material                 | Tin-plated Cu litz wires                                                               |
| Standards/specifications           | M12 connector IEC 61076-2-101                                                          |
| Insulation resistance              | ≥ 20 MΩ*km                                                                             |
| Conductor resistance               | ≤ 57.6 mΩ/m                                                                            |
| Nominal voltage, cable             | 300 V                                                                                  |
| Test voltage, cable                | 2000 V AC                                                                              |
| Ambient temperature (operation)    | -40 °C ... 85 °C (cable, fixed installation)                                           |
|                                    | -25 °C ... 85 °C (cable, flexible installation)                                        |

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### Technical data

#### Standards and Regulations

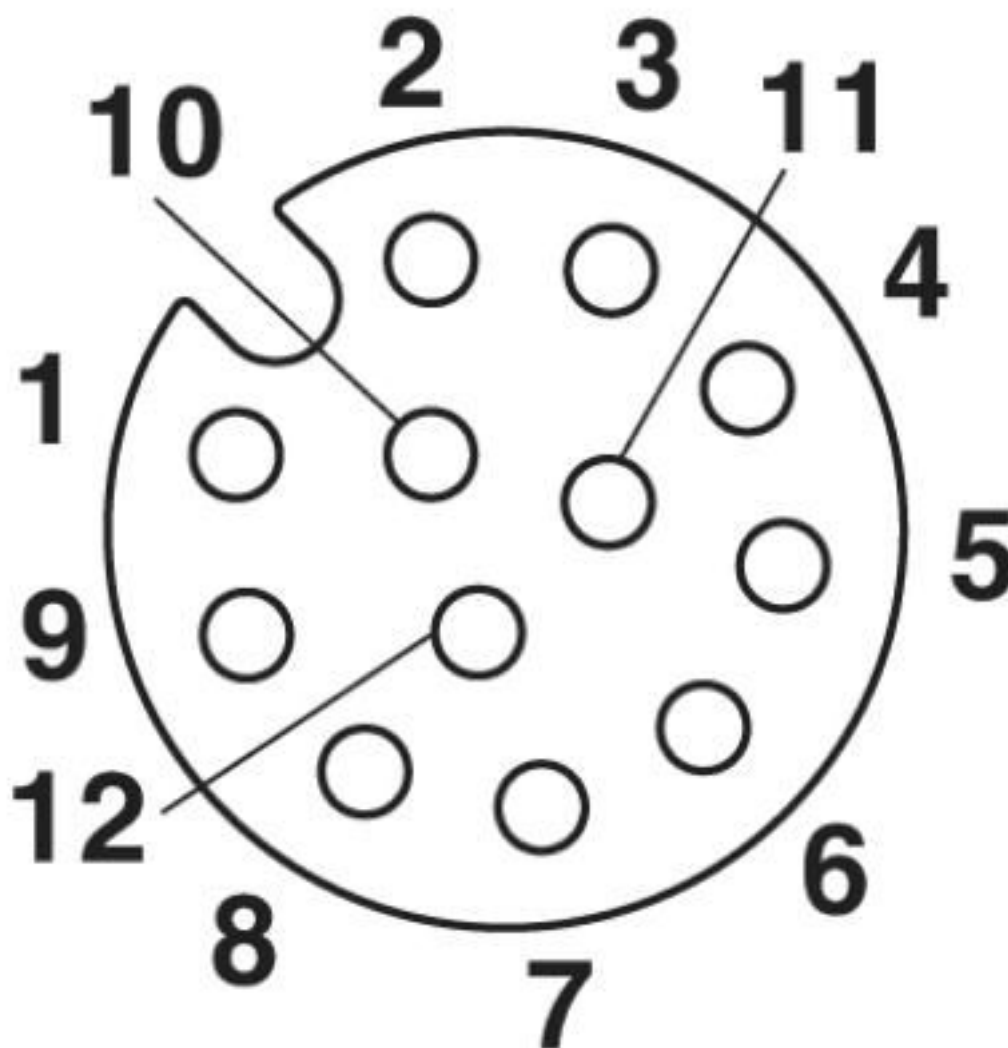
|                                        |                               |
|----------------------------------------|-------------------------------|
| Standards/specifications               | M12 connector IEC 61076-2-101 |
| Flammability rating according to UL 94 | V0                            |

#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

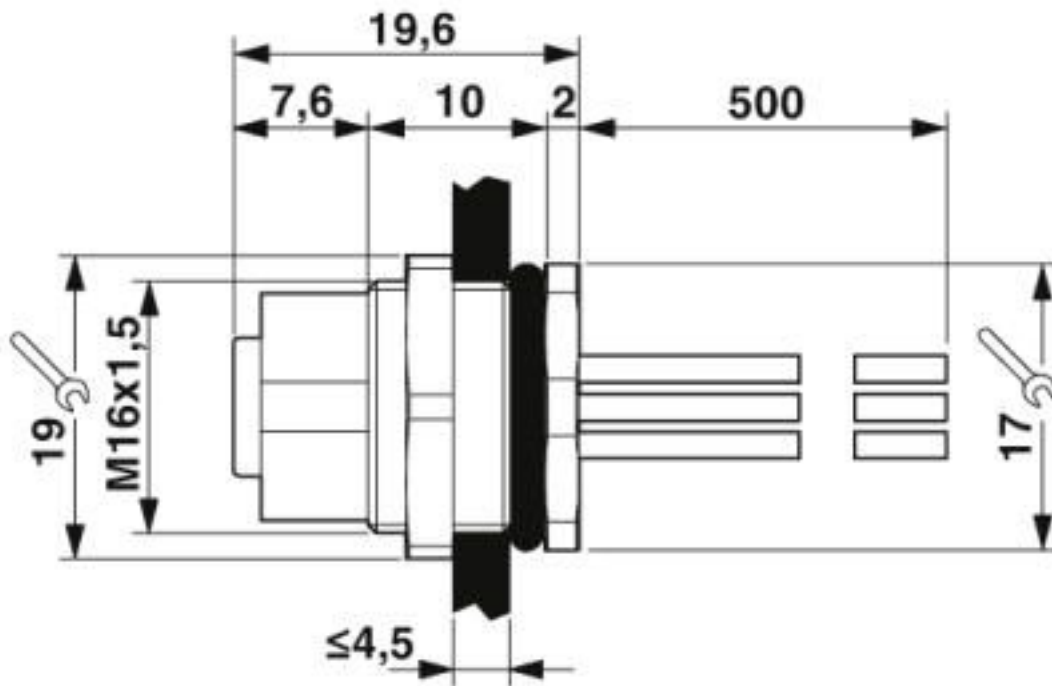
Schematic diagram



Pin assignment M12, 12-pos., female side view

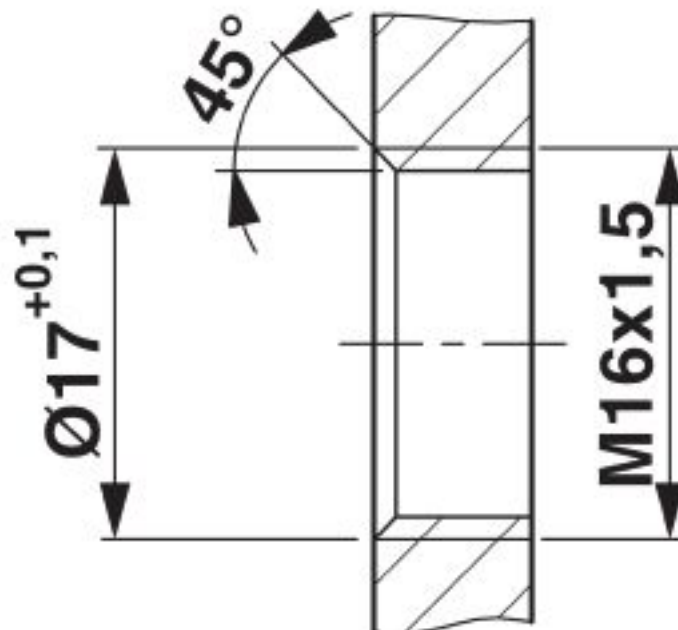
## Flush-type connector - SACC-DSI-M12FS-12CON-M16/0,5 - 1419713

Dimensional drawing



M12 flush-type socket

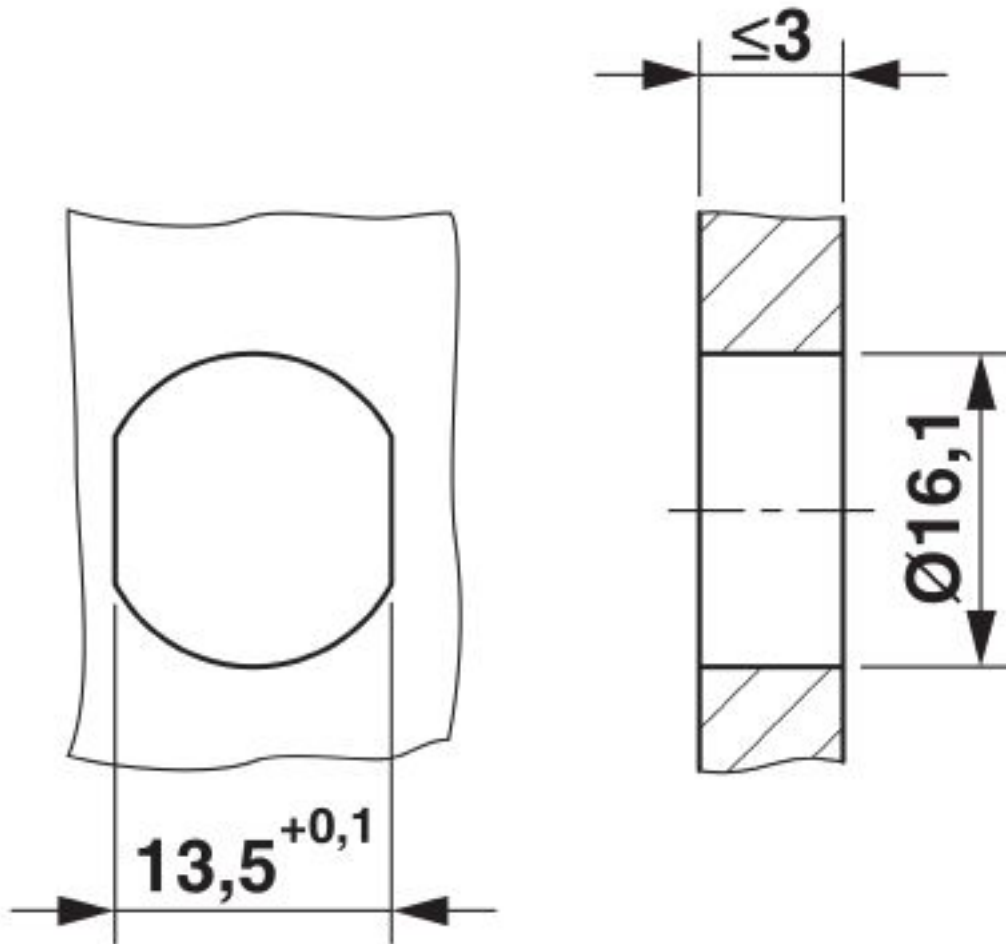
Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with thread

## Flush-type connector - SACC-DSI-M12FS-12CON-M16/0,5 - 1419713

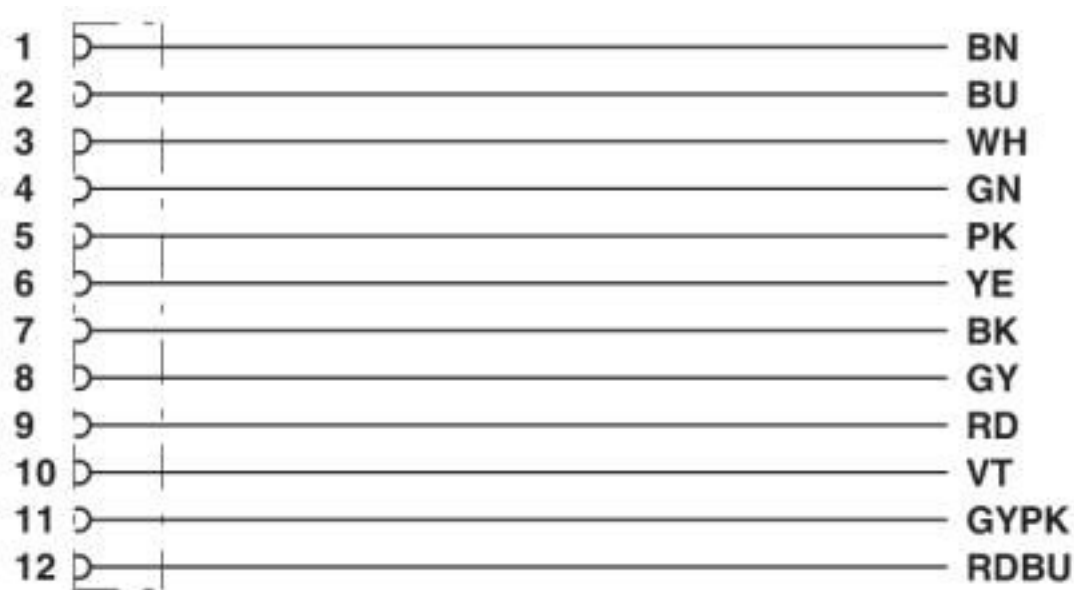
Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with area as anti-rotation protection for panel thicknesses > 2 mm up to max. 4.5 mm)

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Circuit diagram



Contact assignment of the M12 socket

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| eCl@ss 4.0    | 27140800 |
| eCl@ss 4.1    | 27140800 |
| eCl@ss 5.0    | 27143400 |
| eCl@ss 5.1    | 27143400 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27440103 |
| eCl@ss 8.0    | 27440103 |
| eCl@ss 9.0    | 27440102 |

ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001297 |
| ETIM 3.0 | EC002061 |
| ETIM 4.0 | EC002061 |
| ETIM 5.0 | EC002061 |
| ETIM 6.0 | EC002061 |

UNSPSC

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

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## Classifications

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 39121413 |
| UNSPSC 18.0 | 39121413 |
| UNSPSC 19.0 | 39121413 |
| UNSPSC 20.0 | 39121413 |
| UNSPSC 21.0 | 39121413 |

## Approvals

### Approvals

#### Approvals

UL Recognized / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Recognized      |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 118976 |
| Nominal voltage UN | 30 V                                                                                |                                                                                                                                                       |               |
| Nominal current IN | 1.5 A                                                                               |                                                                                                                                                       |               |
| mm²/AWG/kcmil      | 26                                                                                  |                                                                                                                                                       |               |

|     |                                                                                     |         |
|-----|-------------------------------------------------------------------------------------|---------|
| EAC |  | B.01687 |
|-----|-------------------------------------------------------------------------------------|---------|

|                    |                                                                                     |                                                                                                                                                       |                  |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| cULus Recognized   |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E221474-20140616 |
| Nominal voltage UN | 30 V                                                                                |                                                                                                                                                       |                  |
| Nominal current IN | 1.5 A                                                                               |                                                                                                                                                       |                  |
| mm²/AWG/kcmil      | 26                                                                                  |                                                                                                                                                       |                  |

## Accessories

### Accessories

Plug for cable screw gland

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### Accessories

Screw plug - PROT-M12 - 1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

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Screw plug - PROT-M12 SH - 1503302



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors

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Screw plug - PROT-M12 FB - 1555538



M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry

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### Seal

Flat gasket - SACC-M16-SEAL CLM - 1430394



M16 flat gasket, for rear mounting of M12 flush-type connectors with M16 fastening thread

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