


# SAC-5P-M12MS/1,5-600/M12FS HD

Order No.: 1404065



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Sensor/Actuator cable, 5-position, PP-EPDM halogen-free, Gray RAL 7035, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 1.5 m, Hygienic design, With high-grade steel knurl

| Commercial data          |  |
|--------------------------|--|
| EAN                      | <br>4 046356 678025 |
| Note                     | Made-to-order  |
| sales group              | D112   |
| Pack                     | 1 Pcs.   |
| Customs tariff           | 85444290   |
| Gross weight in pieces   | 0.067 KG   |
| Net weight per piece     | 0.067 KG   |
| Catalog page information | Page 143 (C-4-2013)  |

#### Product notes

WEEE/RoHS-compliant since:  
07/07/2011



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| Technical data                  |                                   |
|---------------------------------|-----------------------------------|
| <b>Dimensions</b>               |                                   |
| Length of cable                 | 1.5 m                             |
| <b>Ambient conditions</b>       |                                   |
| Ambient temperature (operation) | -40 °C ... 105 °C (Plug / socket) |

|                      |       |
|----------------------|-------|
| Degree of protection | IP65  |
|                      | IP67  |
|                      | IP68  |
|                      | IP69K |

### General

|                              |   |
|------------------------------|---|
| Rated current at 40°C        | 4 A   |
| Rated voltage                | 60 V  |
| Number of positions          | 5   |
| Contact resistance           | ≤ 5 mΩ  |
| Insulation resistance        | ≥ 100 MΩ  |
| Coding                       | A - standard  |
| Standards/regulations        | M12 connector IEC 61076-2-101<br>Material conformance FDA 21 CFR 177.2600 |
| Status display               | No  |
| Protective circuit/component | Unwired   |
| Surge voltage category       | II  |
| Pollution degree             | 3   |
| Insertion/withdrawal cycles  | ≥ 100   |
| Torque                       | 0.4 Nm (M12 connector)  |

### Material

|                          |                  |
|--------------------------|------------------|
| Contact material         | CuSn             |
| Contact surface material | Ni/Au            |
| Contact carrier material | PP               |
| Material of grip body    | PP               |
| Material, knurls         | High-grade steel |
| Sealing material         | FKM              |

### Cable

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Cable type                         | Halogen-free PP gray                  |
| Cable type (abbreviation)          | 600                                   |
| Cable abbreviation                 | Li9Y9Y                                |
| Conductor cross section            | 5x 0.34 mm <sup>2</sup> (signal line) |
| AWG signal line                    | 22                                    |
| Conductor structure signal line    | 42x 0.10 mm                           |
| Core diameter including insulation | 1.27 mm ±0.02 mm (signal line)        |

|   |  |
|---|--|
| Thickness, insulation                           | ≥ 0.21 mm (Core insulation)  |
| Wire colors                                     | Brown, white, blue, black, gray  |
| Overall twist                                   | 5 cores, twisted   |
| Length of twist, overall twist                  | 55 mm  |
| External sheath, color                          | Gray RAL 7035  |
| Outer sheath thickness                          | approx. 0.7 mm   |
| External cable diameter D                       | 5 mm ±0.15 mm  |
| Minimum bending radius, fixed installation      | 5 x D  |
| Minimum bending radius, flexible installation   | 10 x D   |
| Number of bending cycles                        | 4000000  |
| Minimum bending radius, drag chain applications | 10 x D   |
| Traversing path                                 | 10 m   |
| Traversing rate                                 | 3 m/s  |
| Acceleration                                    | 10 m/s <sup>2</sup>  |
| Cable weight                                    | 34 kg/km   |
| Outer sheath, material                          | PP-EPDM  |
| Material conductor insulation                   | PP   |
| Conductor material                              | Bare Cu litz wires   |
| Conductor resistance                            | 58 Ω/km (at 20 °C)   |
| Nominal voltage, cable                          | ≤ 300 V AC   |
| Test voltage, cable                             | ≥ 3000 V AC  |
| Special properties                              | FDA compliant according to FDA 21 CFR 177.2600                                   |
|   | highly flexible  |
|   | partly suitable for use with drag chain  |
| Halogen-free                                    | in accordance with DIN VDE 0472 part 815   |
| Other resistance                                | Resistant to cold bending and cold impacts According to DIN EN 60811-1-4 (-40°C) |
| Ambient temperature (operation)                 | -40 °C ... 105 °C (cable, fixed installation)                                    |
|   | -25 °C ... 105 °C (cable, flexible installation)                                 |

### Certificates / Approvals

Certification

Certifications applied for:

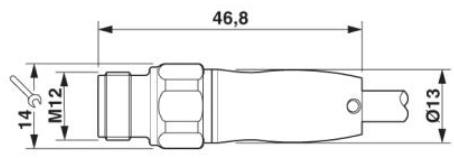
Certification Ex:

**Accessories**

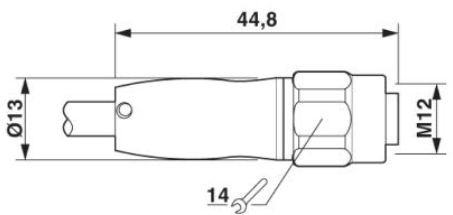
| Item         | Designation           | Description   |
|--------------|-----------------------|---|
| <b>Tools</b> |                       |   |
| 1212513      | SAC BIT M12-W14       | SAC nut, for assembling M12 connectors with hexagonal high-grade steel knurl, with 4 mm hexagonal drive |
| 1208429      | TSD 04 SAC            | Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors            |
| 1212224      | TSD-M 1,2NM           | Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm                 |
| 1212600      | TSD-M SAC-BIT ADAPTER | Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits         |

**Drawings**

Dimensioned drawing

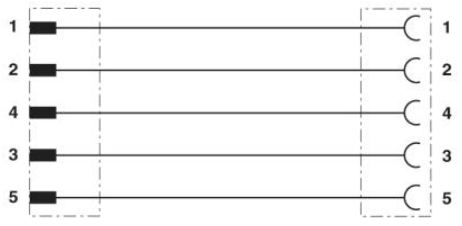


M12 x 1 plug, straight



M12 x 1 socket, straight

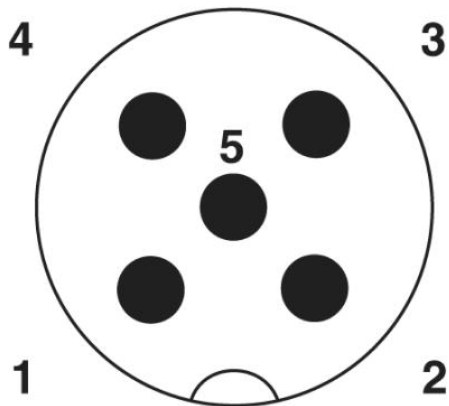
Circuit diagram



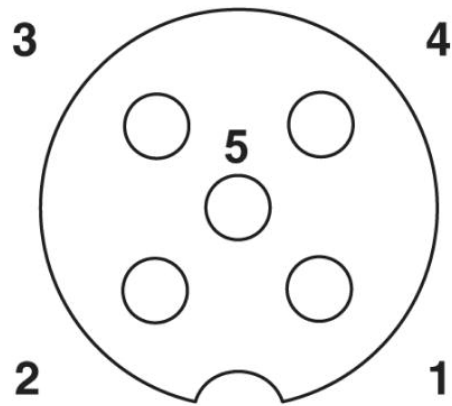
Contact assignment of the M12 connector and the M12 socket

Schematic diagram

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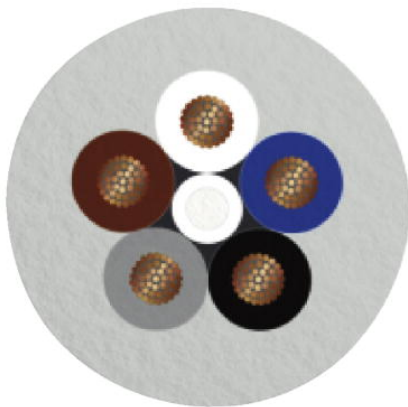


Pin assignment M12 male connector, 5-pos., A-coded, male side



Pin assignment M12 socket, 5-pos., A-coded, socket side view

Halogen-free PP gray [600]



**Address**

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