

# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, Plug angled M8, coding: A, on free cable end, cable length: 3 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Save space – with high-pos. connectors

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1404186                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF01                           |
| Product key                          | AF1BGA                         |
| GTIN                                 | 4046356681087                  |
| Weight per piece (including packing) | 100.7 g                        |
| Weight per piece (excluding packing) | 98 g                           |
| Customs tariff number                | 85444290                       |
| Country of origin                    | PL                             |

# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard              |
| Number of positions  | 8                     |
| No. of cable outlets | 1                     |
| Shielded             | no                    |
| Coding               | A                     |

### Insulation characteristics

|                     |   |
|---------------------|---|
| Degree of pollution | 3 |
|---------------------|---|

### Material specifications

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flammability rating according to UL 94 | HB                                          |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuSn                                        |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material for screw connection          | Zinc die-cast, nickel-plated                |

### Electrical properties

|                       |                            |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 30 V AC                    |
|                       | 30 V DC                    |
| Nominal current $I_N$ | 1.5 A                      |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 100$ |
|-----------------------------|------------|

### Signaling

|                        |    |
|------------------------|----|
| Status display         | no |
| Status display present | no |

### Connection data

#### Conductor connection

|                   |                        |
|-------------------|------------------------|
| Tightening torque | 0.2 Nm (M8 connectors) |
|-------------------|------------------------|

### Connector

#### Connection 1

|                     |                |
|---------------------|----------------|
| Type                | Plug angled M8 |
| Number of positions | 8              |

# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

|             |   |
|-------------|---|
| Coding type | A |
|-------------|---|

## Connection 2

|      |                |
|------|----------------|
| Type | free cable end |
|------|----------------|

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 3 m |
|--------------|-----|

## PUR halogen-free black [PUR]

|                                               |                                                                                    |
|-----------------------------------------------|------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| Cable weight                                  | 31.4 kg/km                                                                         |
| UL AWM Style                                  | 20549                                                                              |
| Number of positions                           | 8                                                                                  |
| Shielded                                      | no                                                                                 |
| Cable type                                    | PUR halogen-free black [PUR]                                                       |
| Conductor structure signal line               | 18x 0.10 mm                                                                        |
| AWG signal line                               | 26                                                                                 |
| Conductor cross section                       | 8x 0.14 mm <sup>2</sup> (Signal line)                                              |
| Wire diameter incl. insulation                | 1 mm ±0.02 mm (Signal line)                                                        |
| External cable diameter                       | 5.10 mm ±0.15 mm                                                                   |
| Outer sheath, material                        | PUR                                                                                |
| External sheath, color                        | black-gray RAL 7021                                                                |
| Conductor material                            | Bare Cu litz wires                                                                 |
| Material, filler                              | PE                                                                                 |
| Material wire insulation                      | PP                                                                                 |
| Single wire, color                            | white, brown, green, yellow, gray, pink, blue, red                                 |
| Thickness, insulation                         | ≥ 0.21 mm (Signal line)<br>≥ 0.38 mm (Outer cable sheath)                          |
| Overall twist                                 | 8 wires around filler to the core                                                  |
| Length of twist, overall twist                | 58 mm                                                                              |
| Max. conductor resistance                     | 139 Ω/km (at 20 °C)                                                                |
| Insulation resistance                         | 1 GΩ*km (at 20 °C)                                                                 |
| Nominal voltage, cable                        | ≤ 300 V AC                                                                         |
| Test voltage                                  | ≥ 3000 V AC (Spark test)                                                           |
| Minimum bending radius, fixed installation    | 5 x D                                                                              |
| Minimum bending radius, flexible installation | 10 x D                                                                             |
| Smallest bending radius, fixed installation   | 25.5 mm                                                                            |
| Smallest bending radius, movable installation | 51 mm                                                                              |

# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

|                                 |                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Dynamic load capacity (bending) | Max. bending cycles: 4000000, Bending radius: 51 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup> |
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                                                                                              |
|                                 | in accordance with DIN EN 50267-2-1                                                                                                   |
| Flame resistance                | according to UL 758/1581 (horizontal)                                                                                                 |
|                                 | in accordance with UL 758/1581 FT2                                                                                                    |
| Resistance to oil               | According to DIN EN 60811-2-1, 168 h at 100°C                                                                                         |
| Other resistance                | hydrolysis and microbe resistant                                                                                                      |
|                                 | Resistant to salt water                                                                                                               |
|                                 | Low adhesion                                                                                                                          |
|                                 | abrasion-resistant                                                                                                                    |
|                                 | partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)                                                                          |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                                                                                          |
|                                 | -25 °C ... 80 °C (Cable, flexible installation)                                                                                       |

## Environmental and real-life conditions

### Ambient conditions

|                                                                   |                                  |
|-------------------------------------------------------------------|----------------------------------|
| Degree of protection                                              | IP65                             |
|                                                                   | IP67                             |
|                                                                   | IP68                             |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C (Plug / socket) |

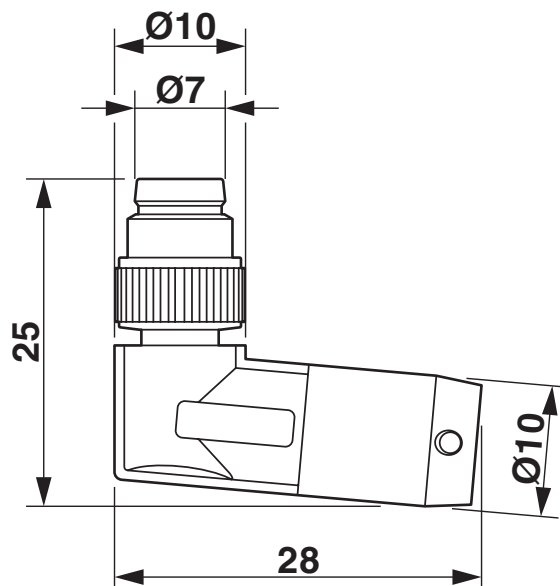
## Standards and regulations

### M8

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M8 connector    |
| Standards/specifications | IEC 61076-2-104 |

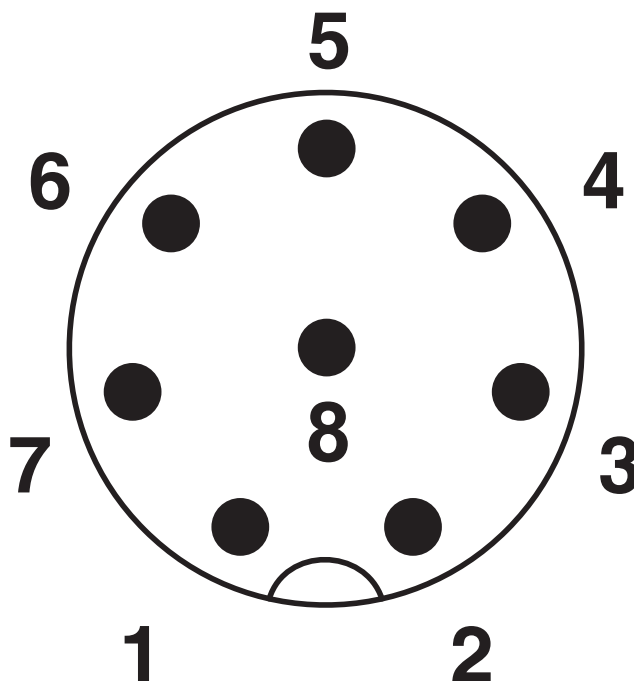
## Drawings

Dimensional drawing



M8 x 1 male plug, angled version

Schematic diagram



M8 plug pin assignment, 8-pos., view of pin side

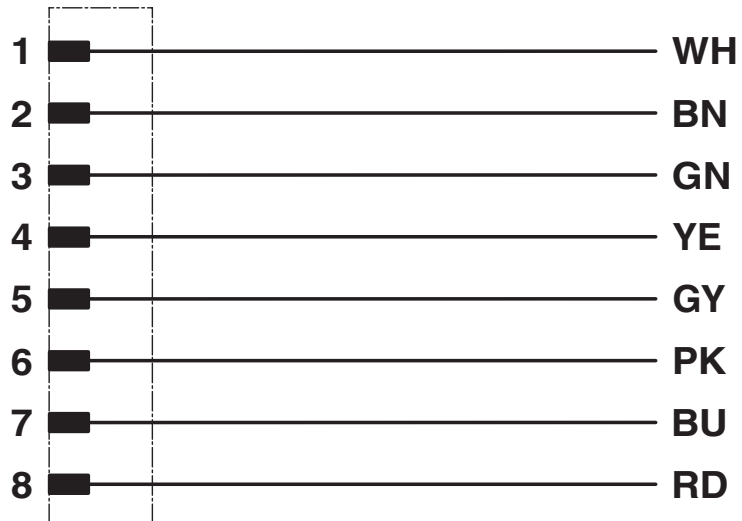
# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

Circuit diagram



Contact assignment of the M8 plug

# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1404186>



### UL Listed

Approval ID: FILE E 221474

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 30 V                  | 1.5 A                 | -                 | -                           |



### cUL Listed

Approval ID: FILE E 221474

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 30 V                  | 1.5 A                 | -                 | -                           |



### EAC-RoHS

Approval ID: RU D-DE.HB35.B.00387

# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060311 |
| ECLASS-15.0 | 27060311 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|



# SAC-8P-M 8MR/ 3,0-PUR - Sensor/actuator cable



1404186

<https://www.phoenixcontact.com/us/products/1404186>

## 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% |
|-------------------------------------|----------------------------|

### EF3.0 Climate Change

|         |              |
|---------|--------------|
| CO2e kg | 1.64 kg CO2e |
|---------|--------------|

Phoenix Contact 2025 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)