

# SAC-8P- 5,0-680/M12FS FDN - Sensor/actuator cable



1095801

<https://www.phoenixcontact.com/us/products/1095801>

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, PVC, gray, shielded, free cable end, on Socket straight M12, coding: A, cable length: 5 m, Foil shielding plus drain wire

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1095801                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF13                           |
| Product key                          | AF1IED                         |
| GTIN                                 | 4055626927527                  |
| Weight per piece (including packing) | 22.22 g                        |
| Weight per piece (excluding packing) | 22.22 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | US                             |

1095801

<https://www.phoenixcontact.com/us/products/1095801>

## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard, U.S. cables |
| Number of positions  | 8                     |
| No. of cable outlets | 1                     |
| Shielded             | yes                   |
| Coding               | A                     |

### Insulation characteristics

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

### Material specifications

|  |   |
|--|---|
| Flammability rating according to UL 94 | HB  |
| Seal material                          | NBR   |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuZn  |
| 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 $I_N$ | 2 A                        |

### Mechanical properties

#### Mechanical data

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

### Signaling

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

### Connection data

#### Conductor connection

|                   |                        |
|-------------------|------------------------|
| Tightening torque | 0.4 Nm (M12 connector) |
|-------------------|------------------------|

### Connector

#### Connection 1

# SAC-8P- 5,0-680/M12FS FDN - Sensor/actuator cable



1095801


<https://www.phoenixcontact.com/us/products/1095801>

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

## Connection 2

|                     |                     |
|---------------------|---------------------|
| Type                | Socket straight M12 |
| Number of positions | 8                   |
| Coding type         | A                   |

## Cable/line

|   |  |
|---|--|
| Cable length                                  | 5 m  |
| Dimensional drawing                           |  |
| Cable weight                                  | 47.37 kg/km  |
| UL AWM Style                                  | 2517 (105 °C / 300 V)  |
| Number of positions                           | 8  |
| Shielded                                      | yes  |
| AWG signal line                               | 24   |
| Wire diameter incl. insulation                | 1.12 mm ±0.03 mm   |
| External cable diameter                       | 5.79 mm ±0.2 mm  |
| Outer sheath, material                        | PVC  |
| External sheath, color                        | gray   |
| Conductor material                            | Tin-plated Cu litz wires   |
| Material wire insulation                      | PVC (Signal line)  |
| Single wire, color                            | white, brown, green, yellow, gray, pink, blue, red                                 |
| Type of pair shielding                        | Plastic-coated aluminum foil, aluminum side inside                                 |
| Overall twist                                 | Conductors, fillers, and drain wire are twisted with left-hand lay                 |
| Max. conductor resistance                     | max. 80.2 Ω/km (20 °C)   |
| Insulation resistance                         | ≥ (550 M Ohms/m @ 500V)  |
| Nominal voltage, cable                        | 300 V  |
| Minimum bending radius, flexible installation | 8 x D  |
| Smallest bending radius, movable installation | 47 mm  |
| Flame resistance                              | FT4  |
| Other resistance                              | UV resistant   |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation)                                      |

## Environmental and real-life conditions

### Ambient conditions

|                      |      |
|----------------------|------|
| Degree of protection | IP65 |
|                      | IP67 |

# SAC-8P- 5,0-680/M12FS FDN - Sensor/actuator cable



1095801

<https://www.phoenixcontact.com/us/products/1095801>

|   |  |
|---|--|
|   | IP68   |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket)               |
| Ambient temperature (operation) (Cable, fixed installation)       | -40 °C ... 80 °C (cable, fixed installation)   |
| Ambient temperature (operation) (Cable, flexible installation)    | -5 °C ... 80 °C (Cable, flexible installation) |

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-101 |

Drawings

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

# SAC-8P- 5,0-680/M12FS FDN - Sensor/actuator cable



1095801

<https://www.phoenixcontact.com/us/products/1095801>

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

# SAC-8P- 5,0-680/M12FS FDN - Sensor/actuator cable



1095801

<https://www.phoenixcontact.com/us/products/1095801>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1095801>

|  <b>UL Listed</b><br>Approval ID: FILE E 221474 |                       |                       |                   |                             |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine  |                       |                       |                   |                             |
|  | 30 V                  | 2 A                   | -                 | -                           |

|  <b>cUL Listed</b><br>Approval ID: FILE E 221474 |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine   |                       |                       |                   |                             |
|   | 30 V                  | 2 A                   | -                 | -                           |

# SAC-8P- 5,0-680/M12FS FDN - Sensor/actuator cable



1095801

<https://www.phoenixcontact.com/us/products/1095801>

## Classifications

### ECLASS

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

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001855 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 31251501 |
|-------------|----------|

# SAC-8P- 5,0-680/M12FS FDN - Sensor/actuator cable



1095801

<https://www.phoenixcontact.com/us/products/1095801>

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

Phoenix Contact 2026 © - 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)