

# SAC-5P-10,0-280/M12FRL FE SH - Power cable



1414820

<https://www.phoenixcontact.com/us/products/1414820>

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.



Power cable, 5-position, PUR halogen-free, gray RAL 7001, shielded (Advanced Shielding Technology), free cable end, on Socket angled M12, coding: L, cable length: 10 m, for direct current up to 16 A/63 V

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Protection against mismatching, thanks to special L-coding
- Shield power reliably – 360° shielding to reduce electromagnetic loads
- Our standard: robust halogen-free PUR cable

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1414820       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF05          |
| Product key                          | AF1CDP        |
| GTIN                                 | 4055626034539 |
| Weight per piece (including packing) | 1,935.4 g     |
| Weight per piece (excluding packing) | 2,089.63 g    |
| Customs tariff number                | 85444290      |
| Country of origin                    | PL            |

1414820

<https://www.phoenixcontact.com/us/products/1414820>

## Technical data

### Product properties

|                      |               |
|----------------------|---------------|
| Product type         | Power cable   |
| Application          | Energy supply |
| Number of positions  | 5             |
| No. of cable outlets | 1             |
| Shielded             | yes           |
| Coding               | L             |

### Insulation characteristics

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

### Material specifications

|  |                              |
|--|------------------------------|
| Flammability rating according to UL 94 | V0                           |
| Material of grip body                  | PP                           |
| Contact material                       | CuZn                         |
| Contact surface material               | Ni/Au                        |
| Contact carrier material               | PA                           |
| Material for screw connection          | Zinc die-cast, nickel-plated |

### Electrical properties

|                       |                            |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 63 V DC                    |
| Nominal current $I_N$ | 16 A                       |

### Mechanical properties

#### Mechanical data

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

### Connector

#### Connection 1

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

#### Connection 2

|             |                   |
|-------------|-------------------|
| Type        | Socket angled M12 |
| Coding type | L (Power)         |

### Cable/line

|              |      |
|--------------|------|
| Cable length | 10 m |
|--------------|------|

PUR halogen-free gray [280]

# SAC-5P-10,0-280/M12FRL FE SH - Power cable



1414820

<https://www.phoenixcontact.com/us/products/1414820>

|   |  |
|---|--|
| Dimensional drawing                           |    |
| Cable weight                                  | 185 kg/km  |
| UL AWM Style                                  | 80°C/300 V   |
| Number of positions                           | 5  |
| Shielded                                      | yes  |
| Cable type                                    | PUR halogen-free gray [280]  |
| Conductor structure, voltage supply           | 80x 0.20 mm  |
| AWG power supply                              | 14   |
| Conductor cross-section                       | 5x 2.5 mm <sup>2</sup>   |
| Wire diameter incl. insulation                | 2.65 mm ±0.1 mm  |
| External cable diameter                       | 9.50 mm ±0.3 mm  |
| Outer sheath, material                        | PUR  |
| External sheath, color                        | gray RAL 7001  |
| Conductor material                            | Bare Cu litz wires   |
| Material wire insulation                      | PP   |
| Single wire, color                            | brown, white, blue, black, pink  |
| Thickness, insulation                         | ≥ 0.14 mm  |
| Thickness, outer sheath                       | approx. 0.75 mm  |
| Max. conductor resistance                     | ≤ 8 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   | 48 mm  |
| Smallest bending radius, movable installation | 95 mm  |
| Dynamic load capacity (bending)               | Max. bending cycles: 5000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup> |
| Dynamic load capacity (torsion)               | Torsion: ±180 °/m, Torsion cycles: 500000, Torsional frequency: 35 cycles/min.   |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815<br>in accordance with DIN EN 50267-2-1  |
| Flame resistance                              | in accordance with UL 758/1581 FT2<br>According to DIN EN 60332-2-2 (20 s)   |
| Resistance to oil                             | according to DIN EN 60811-404, 168 h at 100 °C<br>hydrolysis and microbe resistant   |

# SAC-5P-10,0-280/M12FRL FE SH - Power cable



1414820

<https://www.phoenixcontact.com/us/products/1414820>

|                                 |   |
|---------------------------------|---|
| Other resistance                | Low adhesion                                    |
|                                 | abrasion-resistant                              |
|                                 | Resistant to salt water                         |
| Ambient temperature (operation) | -50 °C ... 85 °C (cable, fixed installation)    |
|                                 | -30 °C ... 85 °C (Cable, flexible installation) |

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-111 |

# SAC-5P-10,0-280/M12FRL FE SH - Power cable

1414820

<https://www.phoenixcontact.com/us/products/1414820>



## Drawings

Dimensional drawing



M12 x 1 socket, angled

Schematic diagram



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

Diagram



Base curve

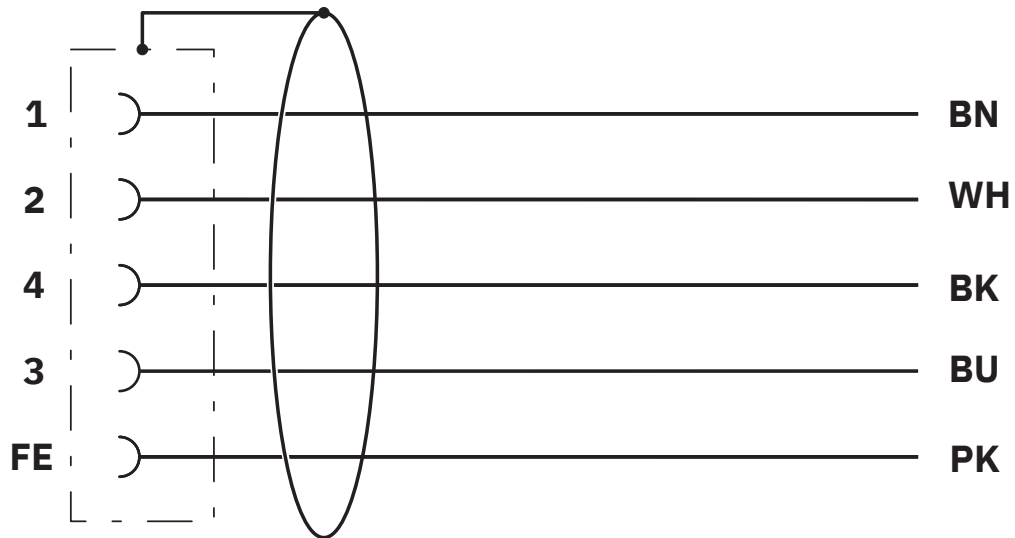
# SAC-5P-10,0-280/M12FRL FE SH - Power cable



1414820

<https://www.phoenixcontact.com/us/products/1414820>

Circuit diagram



Contact assignment of the M12 socket

# SAC-5P-10,0-280/M12FRL FE SH - Power cable



1414820

<https://www.phoenixcontact.com/us/products/1414820>

## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1414820>

 **UL Listed**  
Approval ID: E468743

 **cUL Listed**  
Approval ID: E468743

 **EAC-RoHS**  
Approval ID: RU D-DE.HB35.B.00387

# SAC-5P-10,0-280/M12FRL FE SH - Power cable



1414820

<https://www.phoenixcontact.com/us/products/1414820>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060327 |
| ECLASS-15.0 | 27060327 |

### ETIM

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

### UNSPSC

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

# SAC-5P-10,0-280/M12FRL FE SH - Power cable



1414820

<https://www.phoenixcontact.com/us/products/1414820>

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

### EF3.1 Climate Change

|         |                |
|---------|----------------|
| CO2e kg | 22.814 kg CO2e |
|---------|----------------|

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)