

## Sensor/actuator cable - SAC-5P- 1,5-115/M 8FRB - 1404475

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Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, free cable end, on Socket angled M8, B-coded, cable length: 1.5 m

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable

RoHS

### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 046356 697125 |
| GTIN                                 | 4046356697125                                                                                           |
| Weight per Piece (excluding packing) | 49.000 g                                                                                                |
| Weight per piece (including packing) | 50.100 g                                                                                                |
| Custom tariff number                 | 85444290                                                                                                |
| Country of origin                    | Poland                                                                                                  |
| Note                                 | Made to Order (non-returnable)                                                                          |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 1.5 m |
|-----------------|-------|

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |
|                                 | IP68                             |

#### General

|                       |     |
|-----------------------|-----|
| Rated current at 40°C | 3 A |
|-----------------------|-----|

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### Technical data

#### General

|                              |                              |
|------------------------------|------------------------------|
| Rated voltage                | 30 V AC                      |
|                              | 30 V DC                      |
| Number of positions          | 5                            |
| Insulation resistance        | ≥ 100 MΩ                     |
| Coding                       | B - inverse                  |
| Standards/regulations        | M8 connector IEC 61076-2-104 |
| Status display               | No                           |
| Protective circuit/component | unwired                      |
| Overvoltage category         | II                           |
| Degree of pollution          | 3                            |
| Insertion/withdrawal cycles  | ≥ 100                        |
| Torque                       | 0.2 Nm (M8 connectors)       |

#### Material

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

#### Standards and Regulations

|                                        |                 |
|----------------------------------------|-----------------|
| Standard designation                   | M8 connector    |
| Standards/regulations                  | IEC 61076-2-104 |
| Flammability rating according to UL 94 | HB              |

#### Cable

|                                    |                                     |
|------------------------------------|-------------------------------------|
| Cable type                         | PUR halogen-free black              |
| Cable type (abbreviation)          | 115                                 |
| Cable abbreviation                 | Li9Y11Y                             |
| UL AWM style                       | 20549                               |
| Conductor cross section            | 0.25 mm <sup>2</sup>                |
| AWG signal line                    | 24                                  |
| Conductor structure signal line    | 32x 0.10 mm                         |
| Core diameter including insulation | 1.17 mm ±0.02 mm                    |
| Thickness, insulation              | approx. 0.21 mm (Core insulation)   |
|                                    | approx. 0.7 mm (Outer cable sheath) |
| Wire colors                        | Brown, white, blue, black, gray     |
| Overall twist                      | 5 cores, twisted                    |
| Length of twist, overall twist     | 75 mm                               |
| External sheath, color             | black-gray RAL 7021                 |

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### Technical data

#### Cable

|                                               |                                                 |
|-----------------------------------------------|-------------------------------------------------|
| External cable diameter D                     | 4.7 mm ±0.15 mm                                 |
| Smallest bending radius, fixed installation   | 23.5 mm                                         |
| Smallest bending radius, movable installation | 47 mm                                           |
| Number of bending cycles                      | 4000000                                         |
| Bending radius                                | 47 mm                                           |
| Traversing path                               | 10 m                                            |
| Traversing rate                               | 3 m/s                                           |
| Acceleration                                  | 10 m/s <sup>2</sup>                             |
| Cable weight                                  | 30 kg/km                                        |
| Outer sheath, material                        | PUR                                             |
| Material, filler                              | PP                                              |
| Material conductor insulation                 | PP                                              |
| Conductor material                            | Bare Cu litz wires                              |
| Insulation resistance                         | ≥ 1 GΩ*km                                       |
| Conductor resistance                          | ≤ 75 Ω/km                                       |
| Nominal voltage, cable                        | ≤ 300 V (AC)                                    |
| Test voltage, cable                           | ≥ 3000 V (AC)                                   |
| Flame resistance                              | according to UL 758/1581 (horizontal)           |
|                                               | in accordance with UL 758/1581 FT2              |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815        |
|                                               | in accordance with DIN EN 50267-2-1             |
| 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                              |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)    |
|                                               | -25 °C ... 80 °C (cable, flexible installation) |

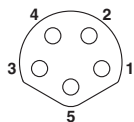
#### Environmental Product Compliance

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

### Drawings

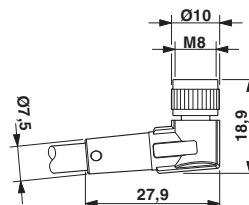
## Sensor/actuator cable - SAC-5P- 1,5-115/M 8FRB - 1404475

Schematic diagram



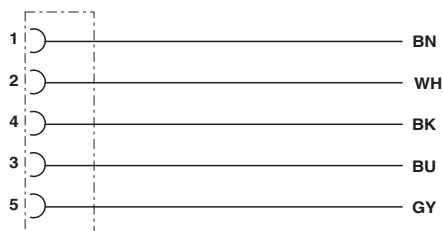
Pin assignment, socket side, M8, 5-pos., B-coded

Dimensional drawing



Socket M8 x 1, angled

Circuit diagram



Contact assignment of M8 socket

### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061800 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |

ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |

UNSPSC

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

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### Classifications

#### UNSPSC

|              |          |
|--------------|----------|
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2  | 31251501 |

### Approvals

#### Approvals

#### Approvals

UL Listed / cUL Listed / cULus Listed

#### Ex Approvals

#### Approval details

|                    |  |                                                                                     |                                                                                                                                                       |               |
|--------------------|--|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Listed          |  |  | <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 221474 |
|                    |  |                                                                                     |                                                                                                                                                       |               |
| Nominal voltage UN |  | 30 V                                                                                |                                                                                                                                                       |               |
| Nominal current IN |  | 3 A                                                                                 |                                                                                                                                                       |               |

|                    |  |                                                                                     |                                                                                                                                                       |               |
|--------------------|--|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Listed         |  |  | <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 221474 |
|                    |  |                                                                                     |                                                                                                                                                       |               |
| Nominal voltage UN |  | 30 V                                                                                |                                                                                                                                                       |               |
| Nominal current IN |  | 3 A                                                                                 |                                                                                                                                                       |               |

|              |                                                                                     |
|--------------|-------------------------------------------------------------------------------------|
| cULus Listed |  |
|--------------|-------------------------------------------------------------------------------------|

### Accessories

#### Accessories

#### Conductor marking

## Sensor/actuator cable - SAC-5P- 1,5-115/M 8FRB - 1404475

### Accessories

Insert label - PABA WH/23 - 1013779



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 - 35 mm, lettering field size: 23 x 4 mm

Insert label - PABA YE/23 - 1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 - 35 mm, lettering field size: 23 x 4 mm

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

### Corrugated pipe

## Sensor/actuator cable - SAC-5P- 1,5-115/M 8FRB - 1404475

### Accessories

Protective hose - WP-PA HF 13,0 BK - 3240681



Polyamide protective hose, inflammability class V0, UV resistant

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Protective hose - WP-PA HF-HB 13,0 BK - 3240839



Polyamide protective hose, inflammability class HB, UV resistant

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### Cutting tools

Diagonal cutter - CUTFOX-S VDE - 1212207



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

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### Marker carrier cable

Conductor marker carrier - PATG 2/15 - 1013038



Conductor marker carrier, transparent, unlabeled, mounting type: slide on, cable diameter range: 2 - 4 mm, lettering field size: 15 x 4 mm

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Conductor marker carrier - PATG 3/15 - 1013041



Conductor marker carrier, transparent, unlabeled, mounting type: slide on, cable diameter range: 4 - 7 mm, lettering field size: 15 x 4 mm

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## Sensor/actuator cable - SAC-5P- 1,5-115/M 8FRB - 1404475

### Accessories

Conductor marker carrier - PATG 4/15 - 1013054



Conductor marker carrier, transparent, unlabeled, mounting type: slide on, cable diameter range: 6 - 10 mm, lettering field size: 15 x 4 mm

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### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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### Protective cap

Screw plug - PROT-M 8 MS-PA-CHAIN - 1430860



M8 sealing cap made of plastic with fixing band for sensor cables, for M8 sockets

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### Screwdriver tools

Tool - SAC BIT M8-D10 - 1208461



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive

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### Stripping tool

Stripping tool - WIREFOX SAC-1 - 1212757



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

## Sensor/actuator cable - SAC-5P- 1,5-115/M 8FRB - 1404475

### Accessories

Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

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Torque tool

Torque screwdriver - TSD 02 SAC - 1208487



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

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Protective hose adapter - WP-CTA POM 13,0 BK - 1422884



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel