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Edition: 08/2020 **5**PEPPERL+FUCHS

**Validity** 

Specific processes and instructions in this instruction manual require special provisions to guarantee the safety of the operating personnel.

### **Target Group, Personnel**

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismounting lies with the plant operator.

The personnel must be appropriately trained and qualified in order to carry out mounting, installation, commissioning, operation, maintenance, and dismounting of the device. The trained and qualified personnel must have read and understood the instruction manual.

#### **Reference to Further Documentation**

Observe laws, standards, and directives applicable to the intended use and the operating location. Observe Directive 1999/92/EC in relation to hazardous areas

The corresponding datasheets, manuals, declarations of conformity, ECtype-examination certificates, certificates, and control drawings if applicable (see datasheet) are an integral part of this document. You can find this information under www.pepperl-fuchs.com.

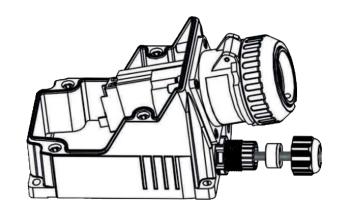
## **Intended Use**

PS\*-7\* plugs are intended for use with PS\*-4\* sockets in the hazardous locations outlined in the corresponding certificates to create a connection point between two devices.

#### **Mounting and Installation**

Observe the installation instructions according to IEC/EN 60079-14.

1. Installation of sockets PS\*-4\*



Loosen the cover screws and detach the cover from the wall socket. Open the cable gland and push the cable through it. Strip the cable outer sheath to a suitable length.

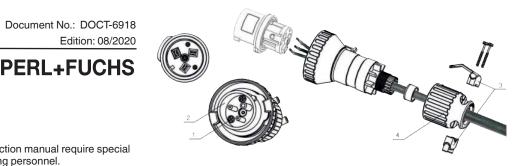
Strip the individual cores to a suitable length and connect them to the relevant

Connect the ground conductor to the grounding terminal.

Make sure all cores are terminated using the correct torque, including the

Secure the cable tightly in the gland by screwing the cap to the correct torque. Carefully place the cover back onto the wall socket and tighten the fixing screws to the correct torque.

2. Installation of plugs PS\*-7\*



Unscrew the screws (1) near the pins inside the front part (2) until you can detach the front part from the housing.

Unscrew the two screws which hold the strain relief (3) and loosen the strain relief. Unscrew the end part (4) completely until it is detached from the

Push the end part (4) over the cable.

Push the cable through the gasket of the housing until it appears at the front

Strip the insulation of the individual cores of the cable.

Connect the cores to the individual terminals of the front part (2). Connect each conductor to its respective terminal. Connect the grounding conductor to the grounding terminal.

Reconnect the front part (2) to the housing by fixing the two screws (2).

Attach the strain relief (3) by means of the two screws.

Screw the end part (4) back onto the housing.

## Operation, Maintenance, Repair

Observe IEC/EN 60079-17 for maintenance and inspection.

The device must be disconnected from the power supply prior to installation and maintenance. The power supply may be activated only after all the circuits required for operation have been fully assembled and connected.

Do not modify or manipulate the device.

Modifications are permitted only if approved in this instruction manual.

The PS\* sockets may only be used with associated PS\* plugs.

Use the plugs and sockets only when they are clean and not damaged.



If a padlock was used to protect the socket against misuse, then the padlock has to be detached.



Open the bayonet catch by turning it counter-clockwise by approx. 120°.



Push the plug into the socket so that the nose of the plug fits into the respective opening in the socket



Activate the socket by turning the plug 30° clockwise.

Secure the IP protection of the plug and socket assembly by closing the bayonet catch of the plug by turning it 120° clockwise.

## **Delivery, Transport, Disposal**

Disposing of device and packaging must be in compliance with the applicable laws and guidelines of the respective country.

#### **Type Code / Model Number**

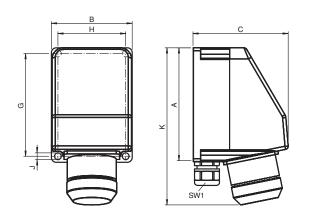
Device type

| PS                                                                                       | Plugs and Sockets Ex de |                        |                   |       |                                                         |                      |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------|-------------------------|------------------------|-------------------|-------|---------------------------------------------------------|----------------------|--|--|--|--|--|--|--|
| I                                                                                        | Operating current       |                        |                   |       |                                                         |                      |  |  |  |  |  |  |  |
| I                                                                                        | nn                      | max. A, see data table |                   |       |                                                         |                      |  |  |  |  |  |  |  |
| I                                                                                        | 1                       | Variant                |                   |       |                                                         |                      |  |  |  |  |  |  |  |
| 1                                                                                        | 1                       | -4                     | socket            |       |                                                         |                      |  |  |  |  |  |  |  |
| 1                                                                                        | 1                       | -7                     | plug              |       |                                                         |                      |  |  |  |  |  |  |  |
| I                                                                                        | 1                       | Number of poles        |                   |       |                                                         |                      |  |  |  |  |  |  |  |
| I                                                                                        | - 1                     | 3 5 see data table     |                   |       |                                                         |                      |  |  |  |  |  |  |  |
| I                                                                                        | - 1                     | 1                      | Pin configuration |       |                                                         |                      |  |  |  |  |  |  |  |
| I                                                                                        | 1                       | I                      | 1                 | nn    | pins and protective contact positioning, see data table |                      |  |  |  |  |  |  |  |
| I                                                                                        | - 1                     | 1                      | 1                 | - 1   | Auxiliary contacts                                      |                      |  |  |  |  |  |  |  |
| I                                                                                        | - 1                     | 1                      | 1                 | - 1   | 00                                                      | none                 |  |  |  |  |  |  |  |
|                                                                                          |                         |                        |                   |       |                                                         |                      |  |  |  |  |  |  |  |
| PS                                                                                       | 125                     | -4                     | 5                 | 06    | 00                                                      | Example              |  |  |  |  |  |  |  |
|                                                                                          | le: Socke<br>position   |                        | ıx. 125 A,        | 380 4 | 15 V, 5-p                                               | pole red, protective |  |  |  |  |  |  |  |
|                                                                                          |                         |                        |                   |       |                                                         |                      |  |  |  |  |  |  |  |
| PS                                                                                       | 16                      | -7                     | 3                 | 04    | 00                                                      | Example              |  |  |  |  |  |  |  |
| Example: Plug Ex de max. 16 A, 110 113 V, 3-pole yellow, protective contact position 4 h |                         |                        |                   |       |                                                         |                      |  |  |  |  |  |  |  |

### **Technical Specifications**

| General                                            |                                                                                                                                                              |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type and variants                                  | PS*-4*, see type code table<br>PS*-7*, see type code table                                                                                                   |
| Electrical specifications                          |                                                                                                                                                              |
| Operating voltage                                  | see table                                                                                                                                                    |
| Operating current                                  | see table                                                                                                                                                    |
| Terminal capacity                                  | see table                                                                                                                                                    |
| Supply frequency                                   | 50/60 Hz                                                                                                                                                     |
| Function                                           | plug or socket                                                                                                                                               |
| Usage category                                     | see table                                                                                                                                                    |
| Number of poles                                    | see table                                                                                                                                                    |
| Color coding according to IEC 60309                | see table                                                                                                                                                    |
| Protective contact position according to IEC 60309 | see table                                                                                                                                                    |
| Mechanical specifications                          | 3                                                                                                                                                            |
| Cable type                                         | non-armored cables                                                                                                                                           |
| Cover fixing                                       | see table                                                                                                                                                    |
| Degree of protection                               | IP66                                                                                                                                                         |
| Number of cable entries                            | see table, 1x cable gland, 1x stopping plug                                                                                                                  |
| Mass                                               | see table                                                                                                                                                    |
| Dimensions                                         | see table                                                                                                                                                    |
| Material                                           |                                                                                                                                                              |
| Housing PS*-4*                                     | carbon loaded, antistatic glass fiber reinforced polyester (GRP)                                                                                             |
| Housing PS*-7*                                     | polyamide (PA)                                                                                                                                               |
| Finish                                             | inherent color black                                                                                                                                         |
| Ambient conditions                                 |                                                                                                                                                              |
| Ambient temperature                                | -40 55 °C (-40 131 °F)                                                                                                                                       |
| Data for application in co                         | nnection with hazardous areas                                                                                                                                |
| EU-type examination certificate                    | SIRA 11 ATEX 1044                                                                                                                                            |
| Marking                                            | ⟨€x⟩ II 2 GD Ex de IIC T6 Gb Ex t IIIC T80 °C Db                                                                                                             |
| International approvals                            |                                                                                                                                                              |
| IECEx approval                                     | IECEx SIR 11.0026                                                                                                                                            |
| Conformity                                         |                                                                                                                                                              |
| Degree of protection                               | EN 60529                                                                                                                                                     |
| Usage category                                     | IEC / EN 60947                                                                                                                                               |
| CE marking                                         | 102                                                                                                                                                          |
| Plug connection                                    | IEC 60309                                                                                                                                                    |
| Standards                                          | EN60079-0:2012<br>EN60079-1:2014<br>EN60079-7:2015<br>EN60079-31:2014<br>and/or<br>IEC60079-0:2011<br>IEC60079-1:2014<br>IEC60079-7:2015<br>IEC60079-31:2013 |
|                                                    |                                                                                                                                                              |

## **Dimensions Sockets PS\*-4\***



Dimension values see data table.

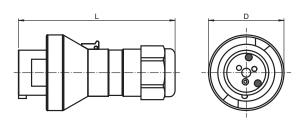
Image and drawing are generic for this device type and may deviate from the specific variant.

| Legend |                            |
|--------|----------------------------|
| А      | External dimension         |
| В      | External dimension         |
| С      | External dimension, depth  |
| G      | Mounting holes distance    |
| Н      | Mounting holes distance    |
| J      | Mounting holes diameter    |
| K      | Maximum external dimension |
| SW1    | Cable entry                |

## Variant-Specific Data Sockets PS\*-4\*

| Туре         | Operatin<br>voltage | g Operating current | Main<br>terminals | Main<br>terminals | Usage category        | Number   | Color<br>coding<br>according | Protective contact position  | of cable | Clamping range |     |     |     |     | Mounting<br>[mm] |     |   | Mass<br>approx. | Cover screws |      |                                               |  |
|--------------|---------------------|---------------------|-------------------|-------------------|-----------------------|----------|------------------------------|------------------------------|----------|----------------|-----|-----|-----|-----|------------------|-----|---|-----------------|--------------|------|-----------------------------------------------|--|
| J.           | [V]                 | max. [A]            | capacity<br>[mm²] | torque<br>[Nm]    | g g ,                 | of poles | to IEC<br>60309              | according<br>to IEC<br>60309 | entries  | [mm]           | A   | В   | С   | к   | G                | н   | J | [kg]            | Mx           | qty. | Torque [Nm] 2.5 2.5 2.5 2.5 2.5 2.5 2.5 3 3 3 |  |
| PS16-430400  | 100 13              | 16                  | 2.5               | 2.5               | AC3: 690 V AC - 16 A  | 3        | yellow                       | 4 h                          | 2x M25   | 8 17           | 156 | 103 | 122 | 223 | 142              | 86  | 6 | 1.2             | M4           | 4    | 2.5                                           |  |
| PS16-430600  | 200 25              | ) 16                | 2.5               | 2.5               | AC3: 690 V AC - 16 A  | 3        | blue                         | 6 h                          | 2x M25   | 8 17           | 156 | 103 | 122 | 223 | 142              | 86  | 6 | 1.2             | M4           | 4    | 2.5                                           |  |
| PS16-440600  | 380 41              | 16                  | 2.5               | 2.5               | AC3: 690 V AC - 16 A  | 4        | red                          | 6 h                          | 2x M25   | 8 17           | 176 | 123 | 147 | 241 | 163              | 106 | 6 | 1.2             | M4           | 4    | 2.5                                           |  |
| PS16-440700  | 480 50              | 16                  | 2.5               | 2.5               | AC3: 690 V AC - 16 A  | 4        | black                        | 7 h                          | 2x M25   | 8 17           | 176 | 123 | 147 | 241 | 163              | 106 | 6 | 1.2             | M4           | 4    | 2.5                                           |  |
| PS16-450600  | 380 41              | 5 16                | 2.5               | 2.5               | AC3: 690 V AC - 16 A  | 5        | red                          | 6 h                          | 2x M25   | 8 17           | 176 | 123 | 147 | 241 | 163              | 106 | 6 | 1.2             | M4           | 4    | 2.5                                           |  |
| PS32-440600  | 380 41              | 32                  | 6                 | 2.5               | AC3: 690 V AC - 32 A  | 4        | red                          | 6 h                          | 2x M32   | 12 21          | 211 | 133 | 162 | 294 | 198              | 118 | 6 | 1.8             | M4           | 4    | 2.5                                           |  |
| PS32-440700  | 480 50              | 32                  | 6                 | 2.5               | AC3: 690 V AC - 32 A  | 4        | black                        | 7 h                          | 2x M32   | 12 21          | 211 | 133 | 162 | 294 | 198              | 118 | 6 | 1.8             | M4           | 4    | 2.5                                           |  |
| PS32-450600  | 380 41              | 32                  | 6                 | 2.5               | AC3: 690 V AC - 32 A  | 5        | red                          | 6 h                          | 2x M32   | 12 21          | 211 | 133 | 162 | 294 | 198              | 118 | 6 | 1.8             | M4           | 4    | 2.5                                           |  |
| PS63-440600  | 380 41              | 63                  | 16                | 3                 | AC3: 690 V AC - 63 A  | 4        | red                          | 6 h                          | 2x M50   | 22 35          | 371 | 201 | 248 | 472 | 352              | 181 | 9 | 8.25            | M6           | 4    | 3                                             |  |
| PS63-440700  | 480 50              | 63                  | 16                | 3                 | AC3: 690 V AC - 63 A  | 4        | black                        | 7 h                          | 2x M50   | 22 35          | 371 | 201 | 248 | 472 | 352              | 181 | 9 | 8.25            | M6           | 4    | 3                                             |  |
| PS63-450600  | 380 41              | 63                  | 16                | 3                 | AC3: 690 V AC - 63 A  | 5        | red                          | 6 h                          | 2x M50   | 22 35          | 371 | 201 | 248 | 472 | 352              | 181 | 9 | 8.83            | M6           | 4    | 3                                             |  |
| PS125-440600 | 380 41              | 125                 | 50                | 3                 | AC3: 690 V AC - 125 A | 4        | red                          | 6 h                          | 2x M63   | 27 48          | 431 | 249 | 274 | 538 | 411              | 228 | 9 | 13              | M6           | 4    | 3                                             |  |
| PS125-440700 | 480 50              | 125                 | 50                | 3                 | AC3: 690 V AC - 125 A | 4        | black                        | 7 h                          | 2x M63   | 27 48          | 431 | 249 | 274 | 538 | 411              | 228 | 9 | 8.25            | M6           | 4    | 3                                             |  |
| PS125-450600 | 380 41              | 125                 | 50                | 3                 | AC3: 690 V AC - 125 A | 5        | red                          | 6 h                          | 2x M63   | 27 48          | 431 | 249 | 274 | 538 | 411              | 228 | 9 | 14              | M6           | 4    | 3                                             |  |

# **Dimensions Plugs PS\*-7\***



Dimension values see data table. Image and drawing are generic for this device type and may deviate from the specific variant.

| Legend |              |
|--------|--------------|
| L      | Total length |
| D      | Diameter     |

# Variant-Specific Data Plugs PS\*-7\*

| Туре         | Operating voltage | Operating current | Main<br>terminals | Main<br>terminals | Number   | Color<br>coding<br>according | Protective contact position  | Clamping range | Exte<br>dimer<br>[m | Mass<br>approx. |      |
|--------------|-------------------|-------------------|-------------------|-------------------|----------|------------------------------|------------------------------|----------------|---------------------|-----------------|------|
| .,,,,        | [V]               | max. [A]          | capacity<br>[mm²] | torque<br>[Nm]    | of poles | to IEC<br>60309              | according<br>to IEC<br>60309 | [mm]           | D                   | L               | [kg] |
| PS16-730400  | 110 130           | 16                | 2.5               | 0.8               | 3        | yellow                       | 4 h                          | 6.5 18.5       | 73                  | 163             | 0.35 |
| PS16-730600  | 200 250           | 16                | 2.5               | 0.8               | 3        | blue                         | 6 h                          | 6.5 18.5       | 73                  | 163             | 0.35 |
| PS16-740600  | 380 415           | 16                | 2.5               | 0.8               | 4        | red                          | 6 h                          | 6.5 20         | 77                  | 187             | 0.35 |
| PS16-740700  | 480 500           | 16                | 2.5               | 0.8               | 4        | black                        | 7 h                          | 6.5 20         | 77                  | 187             | 0.35 |
| PS16-750600  | 380 415           | 16                | 2.5               | 0.8               | 5        | red                          | 6 h                          | 6.5 20         | 84                  | 187             | 0.35 |
| PS32-740600  | 380 415           | 32                | 6                 | 0.8               | 4        | red                          | 6 h                          | 10 28          | 101                 | 232             | 0.7  |
| PS32-740700  | 480 500           | 32                | 6                 | 0.8               | 4        | black                        | 7 h                          | 10 28          | 101                 | 232             | 0.7  |
| PS32-750600  | 380 415           | 32                | 6                 | 0.8               | 5        | red                          | 6 h                          | 10 28          | 101                 | 232             | 0.7  |
| PS63-740600  | 380 415           | 63                | 16                | 0.8               | 4        | red                          | 6 h                          | 15 35          | 111                 | 262             | 0.81 |
| PS63-740700  | 480 500           | 63                | 16                | 0.8               | 4        | black                        | 7 h                          | 15 35          | 111                 | 262             | 0.81 |
| PS63-750600  | 380 415           | 63                | 16                | 0.8               | 5        | red                          | 6 h                          | 15 35          | 111                 | 262             | 0.86 |
| PS125-740600 | 380 415           | 125               | 50                | 0.8               | 4        | red                          | 6 h                          | 20 57          | 121                 | 298             | 1.25 |
| PS125-740700 | 480 500           | 125               | 50                | 0.8               | 4        | black                        | 7 h                          | 20 57          | 121                 | 298             | 1.25 |
| PS125-750600 | 380 415           | 125               | 50                | 0.8               | 5        | red                          | 6 h                          | 20 57          | 121                 | 298             | 1.3  |