

## PSR-SPP- 24UC/ESAM4/2X1/1X2

Order No.: 2900526

The figure shows a version with a screw connection



<http://catalog.phoenixcontact.net/phoenix/treeViewClick.do?UID=2900526>

Safety relay for emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, single or two-channel operation, 2 enabling current paths, nominal input voltage of 24 V AC/DC, plug-in spring-cage terminal blocks



### Commercial data

|                          |                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------|
| EAN                      | <br>4 046356 515665 |
| sales group              | G504                                                                                                   |
| Pack                     | 1 Pcs.                                                                                                 |
| Customs tariff           | 85371099                                                                                               |
| Gross weight in pieces   | 0.2275 KG                                                                                              |
| Net weight per piece     | 0.13748 KG                                                                                             |
| Catalog page information | Page 70 (C-8-2013)                                                                                     |

### Product notes

WEEE/RoHS-compliant since:  
06/11/2009



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

### Technical data

#### Dimensions

|        |          |
|--------|----------|
| Width  | 22.5 mm  |
| Height | 112 mm   |
| Depth  | 114.5 mm |

#### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -20 °C ... 55 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |

#### Input data

|                                               |                                                          |
|-----------------------------------------------|----------------------------------------------------------|
| Nominal input voltage $U_N$                   | 24 V AC/DC                                               |
| Input voltage range in reference to $U_N$     | 0.85 ... 1.1                                             |
| Typical input current at $U_N$                | 140 mA AC                                                |
|                                               | 65 mA DC                                                 |
| Voltage at input/start and feedback circuit   | approx. 24 V DC                                          |
| Typical response time                         | 20 ms (manual start)                                     |
|                                               | 150 ms (automatic start)                                 |
| Typical release time                          | 45 ms (single-channel)                                   |
|                                               | 10 ms (two-channel)                                      |
| Concurrence input 1/2                         | Infinite                                                 |
| Recovery time                                 | 1 s                                                      |
| Status display                                | Green LED                                                |
| Max. permissible overall conductor resistance | approx. 50 $\Omega$ (Input and start circuits at $U_N$ ) |

#### Output data

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| Contact type                          | 2 enabling current paths                    |
|                                       | 1 signaling current path                    |
| Contact material                      | AgSnO <sub>2</sub> , + 0.2 $\mu$ m Au       |
| Minimum switching voltage             | 15 V AC/DC                                  |
| Maximum switching voltage             | 250 V AC/DC                                 |
| Limiting continuous current           | 6 A (N/O contact)                           |
| Inrush current, minimum               | 25 mA                                       |
| Maximum inrush current                | 6 A                                         |
| Sq. Total current                     | $72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2)$ |
| Interrupting rating (ohmic load) max. | 144 W (24 V DC, $\tau = 0$ ms)              |
|                                       | 288 W (48 V DC, $\tau = 0$ ms)              |
|                                       | 77 W (110 V DC, $\tau = 0$ ms)              |
|                                       | 88 W (220 V DC, $\tau = 0$ ms)              |
|                                       | 1500 VA (250 V AC, $\tau = 0$ ms)           |

|                                              |                                 |
|----------------------------------------------|---------------------------------|
| Maximum interrupting rating (inductive load) | 48 W (24 V DC, $\tau = 40$ ms)  |
|                                              | 40 W (48 V DC, $\tau = 40$ ms)  |
|                                              | 35 W (110 V DC, $\tau = 40$ ms) |
|                                              | 35 W (220 V DC, $\tau = 40$ ms) |
| Switching capacity min.                      | 0.4 W                           |
| Output fuse                                  | 10 A gL/gG NEOZED (N/O contact) |
|                                              | 6 A gL/gG NEOZED (N/C contact)  |

#### General

|                                             |                                                        |
|---------------------------------------------|--------------------------------------------------------|
| Relay type                                  | Electromechanically forcibly guided, dust-proof relay. |
| Mechanical service life                     | Approx. $10^7$ cycles                                  |
| Mounting type                               | DIN rail mounting                                      |
| Degree of protection                        | IP20                                                   |
| Min. degree of protection of inst. location | IP54                                                   |
| Mounting position                           | any                                                    |
| Category according to EN 13849-1            | 4                                                      |
| Stop category                               | 0                                                      |
| Designation                                 | Air and creepage distances between the power circuits  |
| Standards/regulations                       | DIN EN 50178/VDE 0160                                  |
| Rated surge voltage / insulation            | 6 kV / Safe isolation, increased insulation            |
| Rated insulation voltage                    | 250 V                                                  |
| Pollution degree                            | 2                                                      |
| Surge voltage category                      | III                                                    |

#### Connection data

|                                        |                        |
|----------------------------------------|------------------------|
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup>    |
| Conductor cross section solid max.     | 1.5 mm <sup>2</sup>    |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup>    |
| Conductor cross section stranded max.  | 1.5 mm <sup>2</sup>    |
| Conductor cross section AWG/kcmil min. | 24                     |
| Conductor cross section AWG/kcmil max  | 16                     |
| Stripping length                       | 8 mm                   |
| Connection method                      | Spring-cage connection |

## Certificates / Approvals



Certification

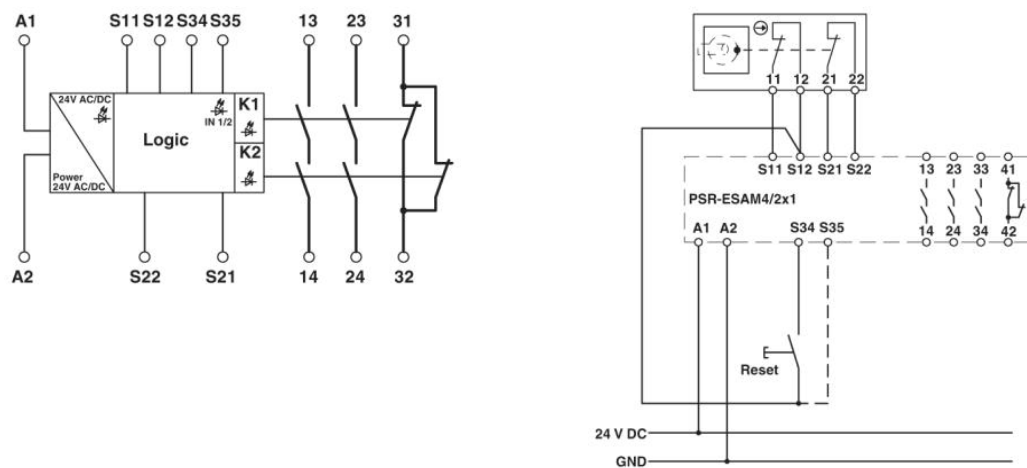
cULus Listed, GOST, Functional Safety

Certifications applied for:

Certification Ex:

## Drawings

Circuit diagram



Hinge switch

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