

# PSR-SCP- 24UC/ESAM4/3X1/1X2/B

Order No.: 2900509



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2900509>

Safety relay to emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, one- or two-channel operation, automatically or manually supervised activation, 3 enabling current paths, nominal input voltage 24 V AC/DC



## Commercial data

|                          |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|
| GTIN (EAN)               |  |
| sales group              | G504                                                                                |
| Pack                     | 1 pcs.                                                                              |
| Customs tariff           | 85364190                                                                            |
| Catalog page information | Page 218 (NTK-2010)                                                                 |

## Product notes

WEEE/RoHS-compliant since:  
05/26/2009



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## Technical data

### 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 (man. start)                                       |
| Typical release time                          | 45 ms (single-channel)                                   |
|                                               | 10 ms (two-channel)                                      |
| Concurrence input 1/2                         | Infinite                                                 |
| Recovery time                                 | 1 s                                                      |
| Max. permissible overall conductor resistance | Approx. 50 $\Omega$ (Input and start circuits at $U_N$ ) |

#### Output data

|                                              |                                                         |
|----------------------------------------------|---------------------------------------------------------|
| Contact type                                 | 3 enabling current paths, 1 signaling current path      |
| Contact material                             | AgSnO <sub>2</sub> , + 0.2 $\mu$ m Au                   |
| Maximum switching voltage                    | 250 V AC/DC                                             |
| Minimum switching voltage                    | 10 V AC/DC                                              |
| Limiting continuous current                  | 6 A (N/O contact)                                       |
|                                              | 5 A (N/C contact)                                       |
| Maximum inrush current                       | 6 A                                                     |
| Inrush current, minimum                      | 10 mA                                                   |
| Sq. Total current                            | $72 \text{ A}^2$ ( $I_{TH}^2 = I_1^2 + I_2^2 + I_3^2$ ) |
| 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.                      | 100 mW                                                  |
| Output fuse                                  | 10 A gL/gG NEOZED (N/O contact)                         |
|                                              | 6 A gL/gG NEOZED (N/C contact)                          |

#### General data

|        |         |
|--------|---------|
| Width  | 22.5 mm |
| Height | 99 mm   |

|                                         |                                                                                                                            |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Depth                                   | 114.5 mm                                                                                                                   |
| Ambient temperature (operation)         | -20 °C ... 55 °C                                                                                                           |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C                                                                                                           |
| Relay type                              | Electromechanically forcibly guided, dust-proof relay.                                                                     |
| Mechanical service life                 | Approx. 10 <sup>7</sup> cycles                                                                                             |
| Mounting position                       | Any                                                                                                                        |
| Category in acc. with EN 954-1          | 4                                                                                                                          |
| Stop category                           | 0                                                                                                                          |
| Name                                    | Air and creepage distances between the power circuits                                                                      |
| Standards/regulations                   | DIN EN 50178/VDE 0160                                                                                                      |
| Rated surge voltage / insulation        | 4 kV / Basic isolation, (safe isolation, reinforced insulation and 6 kV between input circuit and enabling current paths.) |
| 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.     | 2.5 mm <sup>2</sup> |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 12                  |
| Stripping length                       | 7 mm                |
| Screw thread                           | M3                  |
| Connection method                      | Screw connection    |

#### Certificates / Approvals

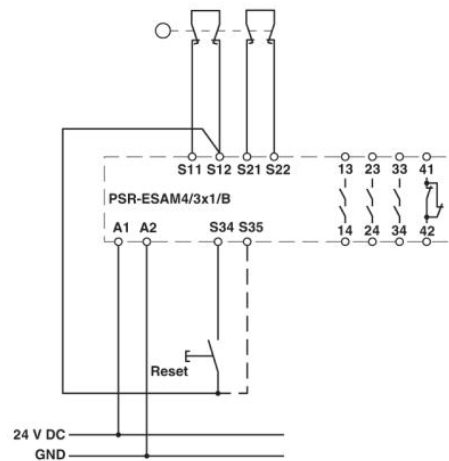
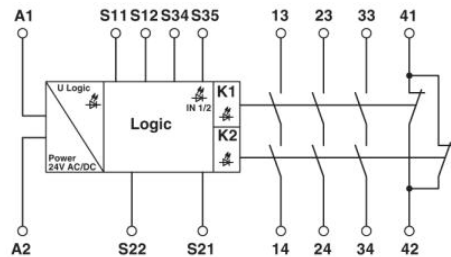


Certification

CUL Listed, GOST, TUEV-RH, UL Listed

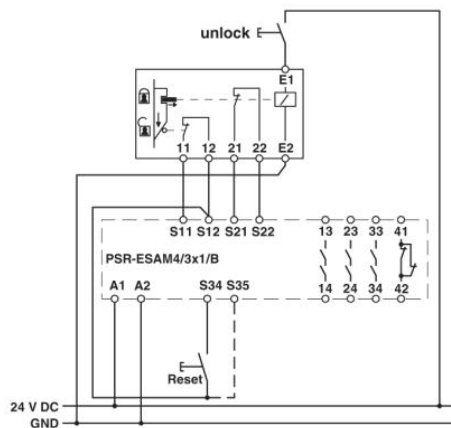
## Diagrams/Drawings

### Circuit diagram



Cable-operated switch

Switch with guard locking



**Address**

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