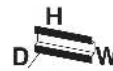



# PSR-SPP- 24DC/FSP/2X1/1X2

Order No.: 2986957

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2986957>

Safe coupling relay for SIL3 high and low demand applications, couples digital output signals to the I/O, 2 enabling current paths, 1 alarm contact, module for safe state off applications, integrated test pulse filter, plug-in terminal blocks, width: 17.5 mm



| Commercial data          |  |
|--------------------------|--|
| GTIN (EAN)               | <br>4 046356 520928 |
| sales group              | G501   |
| Pack                     | 1 pcs.   |
| Customs tariff           | 85364190   |
| Catalog page information | Page 219 (NTK-2010)  |

**Product notes**WEEE/RoHS-compliant since:  
08/24/2009

<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****Input data**

|   |              |
|---|--------------|
| Nominal input voltage $U_N$               | 24 V DC      |
| Input voltage range in reference to $U_N$ | 0.85 ... 1.1 |
| Typical input current at $U_N$            | 55 mA        |

|                        |             |
|------------------------|-------------|
| Typical inrush current | max. 100 mA |
| Typical response time  | 50 ms       |
| Typical release time   | 50 ms       |
| Recovery time          | 1 s         |

#### Output data

|  |   |
|--|---|
| Contact type                                 | 2 undelayed enabling current paths, 1 undelayed confirmation path   |
| Contact material                             | AgCuNi, + 0.2 µm Au   |
| Maximum switching voltage                    | 250 V AC/DC   |
| Minimum switching voltage                    | 15 V AC/DC  |
| Limiting continuous current                  | 5 A (N/O contact)<br>100 mA (N/C contact)   |
| Maximum inrush current                       | 5 A   |
| Inrush current, minimum                      | 5 mA  |
| Sq. Total current                            | $50 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + \dots + I_N^2)$   |
| Interrupting rating (ohmic load) max.        | 120 W (24 V DC, $\tau = 0$ ms, N/C contact: 2.4 W)<br>192 W (48 V DC, $\tau = 0$ ms, N/C contact: 4.8 W)<br>162 W (60 V DC, $\tau = 0$ ms, N/C contact: 6 W)<br>66 W (110 V DC, $\tau = 0$ ms, N/C contact: 11 W)<br>60 W (220 V DC, $\tau = 0$ ms, N/C contact: 22 W)<br>1250 VA (250 V AC, $\tau = 0$ ms, N/C contact: 25 VA) |
| Maximum interrupting rating (inductive load) | 72 W (24 V DC, $\tau = 40$ ms, N/C contact: 2.4 W)<br>43 W (48 V DC, $\tau = 40$ ms, N/C contact: 4.8 W)<br>41 W (60 V DC, $\tau = 40$ ms, N/C contact: 6 W)<br>35 W (110 V DC, $\tau = 40$ ms, N/C contact: 11 W)<br>48 W (220 V DC, $\tau = 40$ ms, N/C contact: 22 W)  |
| Switching capacity min.                      | 75 mW   |
| Output fuse                                  | 10 A gL/gG (N/O contact)<br>6 A gL/gG (N/C contact)   |

#### General data

|   |                  |
|---|------------------|
| Width                                   | 17.5 mm          |
| Height                                  | 112 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. $10^7$ 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 | 6 kV/safe isolation, reinforced 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 conn.   |

#### Certificates / Approvals

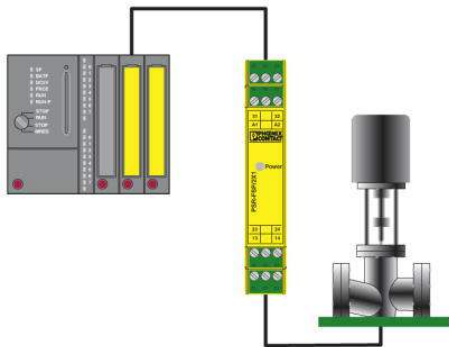


Certification

CUL Listed, TUEV-RH, UL Listed

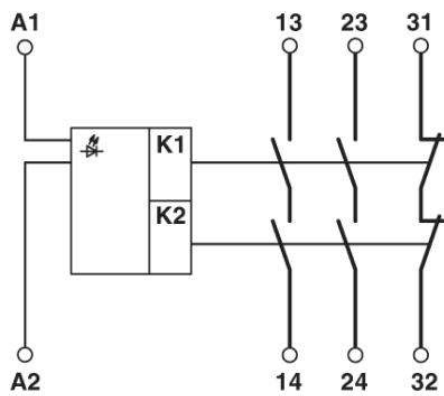
### Diagrams/Drawings

#### Application drawing



Example of electrical isolation of a safety PLC output from the field.

#### Circuit diagram



**Address**

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