

## PSR-SPP- 24UC/ESA4/2X1/1X2


Order No.: 2963938

The figure shows a version with a screw connection

<http://catalog.phoenixcontact.net/phoenix/treeViewClick.do?UID=2963938>

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	 4 017918 904777
sales group	G503
Pack	1 Pcs.
Customs tariff	85364900
Gross weight in pieces	0.225 KG
Net weight per piece	0.024 KG
Catalog page information	Page 20 (IF-2009)

**Product notes**WEEE/RoHS-compliant since:  
03/30/2006

<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	
<b>Dimensions</b>	
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	100 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 A <sup>2</sup> ( $I_{TH}^2 = I_1^2 + I_2^2$ )
Interrupting rating (ohmic load) max.	144 W (24 V DC, $\tau = 0$ ms) 288 W (48 V DC, $\tau = 40$ 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

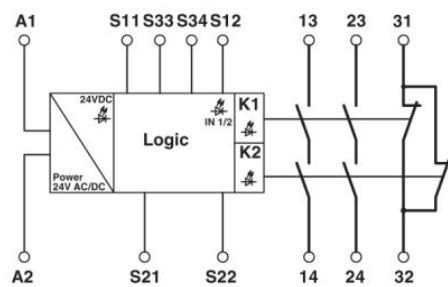
cULus Listed, GOST, Functional Safety

Certifications applied for:

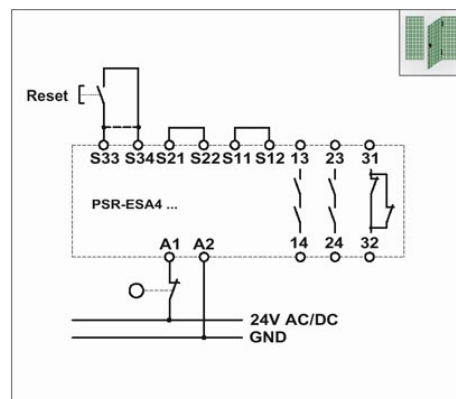
Certification Ex:

## Drawings

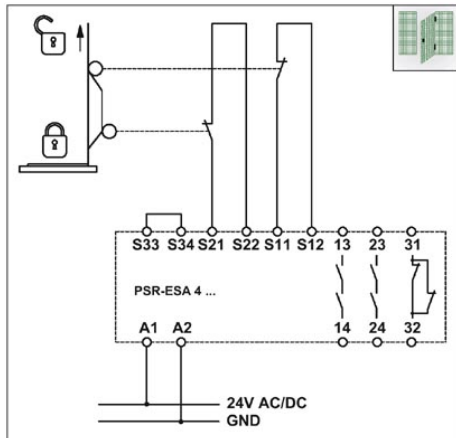
Circuit diagram



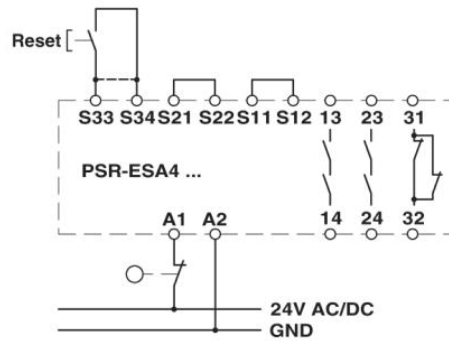
1 = logics



Single-channel protection door monitor with automatic activation, suitable up to safety category 2.



Two-channel safety door monitoring with cross monitoring and automatic activation, suitable up to safety category 4.



Single-channel protection door monitor with automatic activation, suitable up to safety category 2.

**Address**

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