

**PSR-SPP- 24UC/ESA2/4X1/1X2/B**


Order No.: 2963954

The figure shows a version with a screw connection

<http://catalog.phoenixcontact.net/phoenix/treeViewClick.do?UID=2963954>

Safety relay to emergency stop and safety door monitoring up to SIL 2 or Cat. 2, PL d according to EN ISO 13849, one-channel operation, automatically or manually supervised activation, 4 enabling current paths, nominal input voltage 24 V AC/DC



Commercial data	
EAN	 4 017918 904821
Pack	1 Pcs.
Customs tariff	85364900
Product key	106500
Catalog page information	Page 10 (IF-2011)

## Product notes

WEEE/RoHS-compliant since:  
11/23/2006

<http://www.download.phoenixcontact.com>  
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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	65 ms
Typical release time	45 ms
Recovery time	1 s
Max. permissible overall conductor resistance	Approx. 22 $\Omega$ (Input and start circuits at $U_N$ )

#### Output data

Contact type	4 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	15 V AC/DC
Limiting continuous current	6 A (N/O contact) 3 A (N/C contact)
Maximum inrush current	6 A
Inrush current, minimum	25 mA
Sq. Total current	$72 \text{ A}^2$ ( $I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2$ )
Interrupting rating (ohmic load) max.	144 W (24 V DC, $\tau = 0$ ms, N/C contact 51/52: 72 W) 288 W (48 V DC, $\tau = 0$ ms, N/C contact 51/52: 144 W) 110 W (110 V DC, $\tau = 0$ ms) 88 W (220 V DC, $\tau = 0$ ms) 1500 VA (250 V AC, $\tau = 0$ ms, N/C contact 51/52: 750 VA)
Maximum interrupting rating (inductive load)	42 W (24 V DC, $\tau = 40$ ms) 42 W (48 V DC, $\tau = 40$ ms) 42 W (110 V DC, $\tau = 40$ ms) 42 W (220 V DC, $\tau = 40$ ms)
Switching capacity min.	0.4 W
Output fuse	6 A fast blow C6 (24 V AC/DC) automatic device

#### General data

Width	22.5 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 <sup>7</sup> cycles
Mounting position	Any
Category according to EN 13849-1	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/N/C contacts and enabling current paths).
Rated insulation voltage	250 V
Pollution degree	2
Surge voltage category	III

#### Connection data

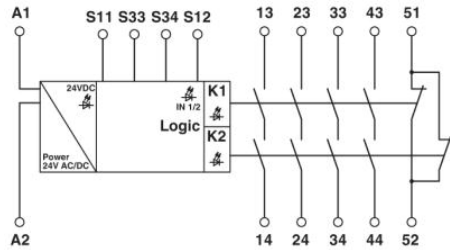
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil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

#### Certificates / Approvals

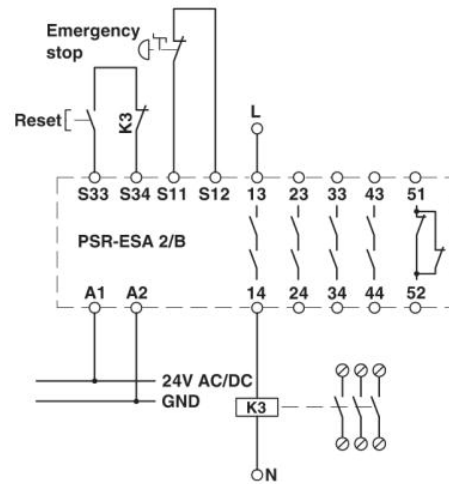
Certification CUL Listed, GOST, TUEV-RH, UL Listed

**Drawings**

**Circuit diagram**



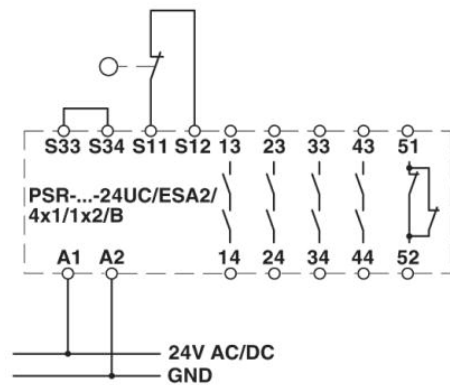
1 = logics



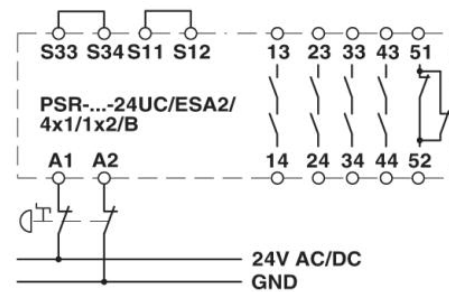
a = RESET

b = Emergency stop

One-channel emergency stop circuit with manual activation and monitored contact expansion, suitable up to safety category 2.



One-channel safety door monitoring with automatic activation, suitable up to safety category 2.



Connection data incl. use groups

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