

# PSR-SPP- 24DC/ESP4/2X1/1X2


Order No.: 2981017



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2981017>


Safety relay for SIL 3 high and low demand applications, also approved according to EN 50156, Germanischer Lloyd and EN ISO 13849, emergency stop and safety door monitoring, single-channel, 2 enabling current paths, 1 alarm contact, plug-in terminal blocks, width: 22.5 mm



Commercial data	
GTIN (EAN)	
Note	Made-to-order
sales group	G501
Pack	1 pcs.
Customs tariff	85364900
Catalog page information	Page 39 (IF-2011)

**Product notes**

WEEE/RoHS-compliant since:  
08/28/2006



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Technical data	
<b>Input data</b>	
Nominal input voltage $U_N$	24 V DC
Input voltage range in reference to $U_N$	0.85 ... 1.1

Typical input current at $U_N$	50 mA DC
Typical inrush current	< 1 A
Voltage at input/start and feedback circuit	24 V DC
Typical response time	60 ms (Automatic/manual start)
Typical release time	20 ms
Recovery time	Approx. 1 s

#### Output data

Contact type	2 enabling current paths, 1 signaling current path (type B according to EN 50205)
Contact material	AgSnO <sub>2</sub> , gold-flashed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	10 V
Limiting continuous current	6 A (N/O contact/N/C contact, high demand) 4 A (N/O contact/N/C contact, low demand)
Maximum inrush current	6 A
Inrush current, minimum	10 mA
Sq. Total current	$72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2)$
Interrupting rating (ohmic load) max.	144 W (24 V DC, $\tau = 0 \text{ ms}$ ) 200 W (48 V DC, $\tau = 0 \text{ ms}$ ) 77 W (110 V DC, $\tau = 0 \text{ ms}$ ) 70 W (220 V DC, $\tau = 0 \text{ ms}$ ) 1500 VA (250 V AC, $\tau = 0 \text{ ms}$ )
Maximum interrupting rating (inductive load)	42 W (24 V DC, $\tau = 40 \text{ ms}$ ) 40 W (48 V DC, $\tau = 40 \text{ ms}$ ) 35 W (110 V DC, $\tau = 40 \text{ ms}$ ) 33 W (220 V DC, $\tau = 40 \text{ ms}$ )
Switching capacity min.	0.2 W
Output fuse	6 A gL/gG NEOZED (High demand) 4 A gL/gG NEOZED (Low demand)

#### 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	On horizontal and vertical DIN rail
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, increased insulation
Rated insulation voltage	250 V
Pollution degree	2
Surge voltage category	III
Housing material	Polyamide PA non-reinforced

**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**

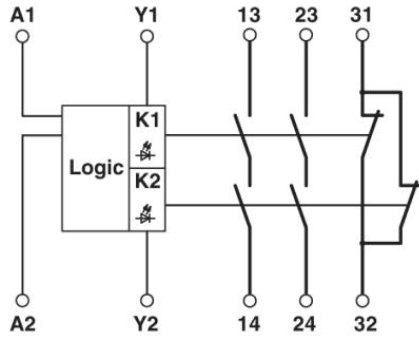


Certification

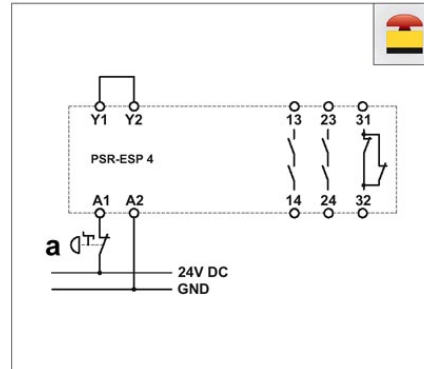
CUL Listed, GL, GOST, TUEV-RH, UL Listed

Diagrams/Drawings

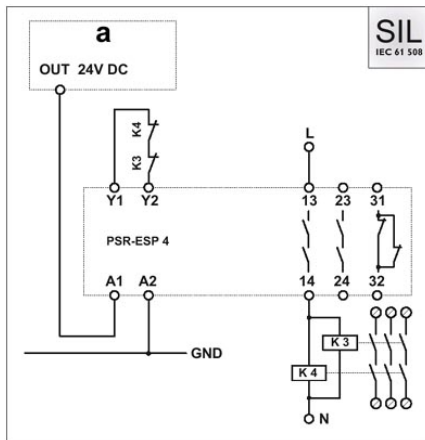
Circuit diagram



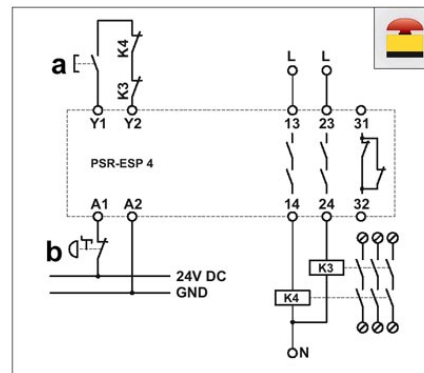
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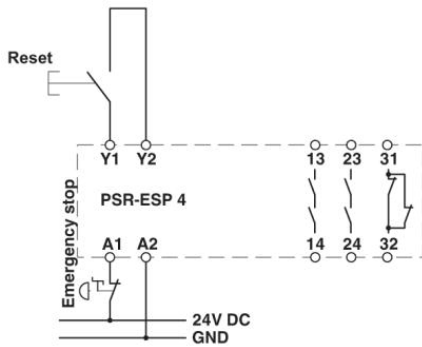
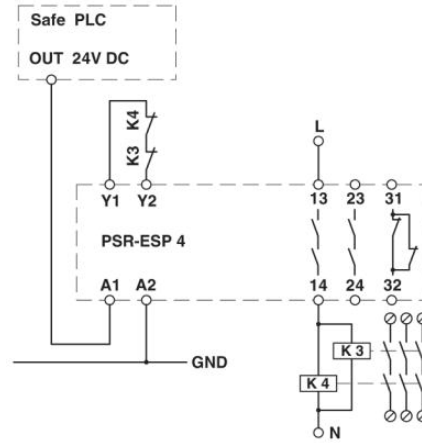
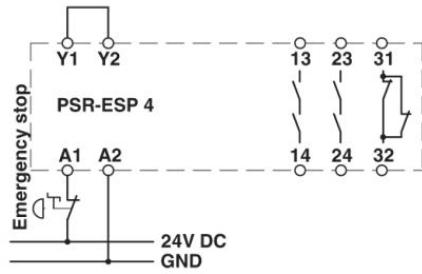
One-channel emergency stop circuit with automatic activation, suitable up to safety category 2.



One-channel evaluation of a safety controller with automatic activation, suitable up to SIL 3.



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



**Address**

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