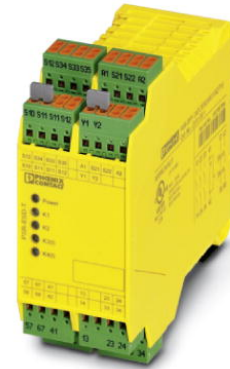


# PSR-SPP- 24DC/ESD/5X1/1X2/ T 3


Order No.: 2981237



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2981237>

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, automatic or manual activation, 3 N/O contactss, 1 N/C contact, 2 N/O contactss switch-off delay set at 3.0 s



Commercial data	
GTIN (EAN)	 4 017918 949051
Note	Made-to-order
sales group	G521
Pack	1 pcs.
Customs tariff	85364900
Catalog page information	Page 15 (IF-2011)

#### Product notes

WEEE/RoHS-compliant since:  
03/21/2007



<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>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 $U_N$	150 mA DC

Voltage at input/start and feedback circuit	Approx. 24 V DC
Typical response time	70 ms (manual start) 600 ms (Auto-start)
Typical release time	20 ms (undelayed contacts)
Concurrence input 1/2	Infinite
Recovery time	1 s
Max. permissible overall conductor resistance	11 Ω (Input and start circuits at U <sub>N</sub> )
Delay time	3 s ±20 %

#### Output data

Contact type	3 enabling current paths undelayed, 2 delayed, 1 signaling current path undelayed
Contact material	AgSnO <sub>2</sub>
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	15 V AC/DC
Limiting continuous current	6 A
Maximum inrush current	6 A
Inrush current, minimum	25 mA
Sq. Total current	$55 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2 + I_5^2)$
Interrupting rating (ohmic load) max.	144 W (24 V DC, τ = 0 ms) 288 W (48 V DC, τ = 0 ms) 110 W (110 V DC, τ = 0 ms) 88 W (220 V DC, τ = 0 ms) 1500 VA (250 V AC, τ = 0 ms)
Maximum interrupting rating (inductive load)	42 W (24 V DC, τ = 40 ms) 42 W (48 V DC, τ = 40 ms) 42 W (110 V DC, τ = 40 ms) 42 W (220 V DC, τ = 40 ms)
Switching capacity min.	0.4 W
Output fuse	6 A fast blow (undelayed) C6 (24 V AC/DC) automatic device (undelayed) 10 A gL/gG NEOZED (delayed)

#### General data

Width	45 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 in acc. with EN 954-1	3 (For delayed contacts) 4 (For non-delayed contacts)
Stop category	0 (For non-delayed contacts) 1 (For delayed contacts)
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 the enabling current paths (13/14, 23/24, 33/34) and the remaining current paths and between 13/14, 23/24, 33/34 between each other.)
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

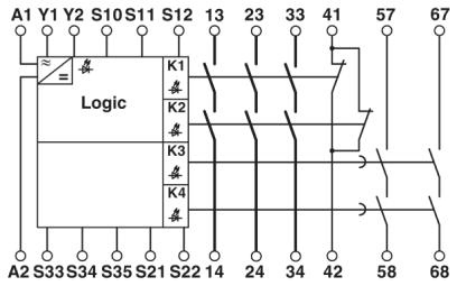


Certification

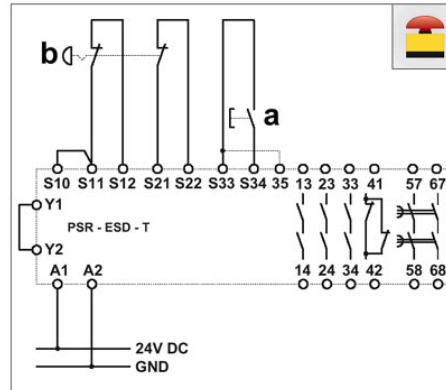
CUL Listed, GOST, TUEV-RH, UL Listed

Diagrams/Drawings

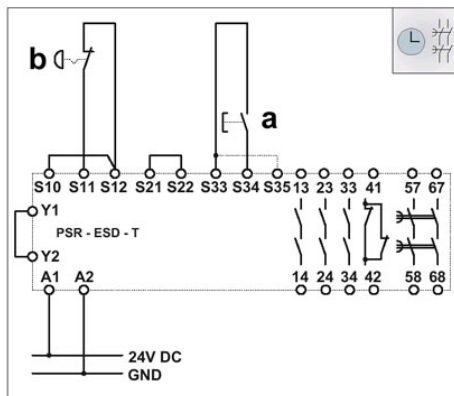
Circuit diagram



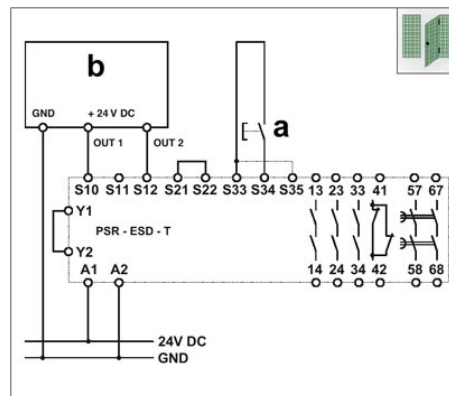
1 = logics



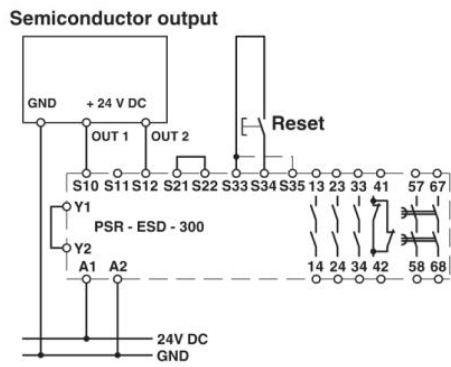
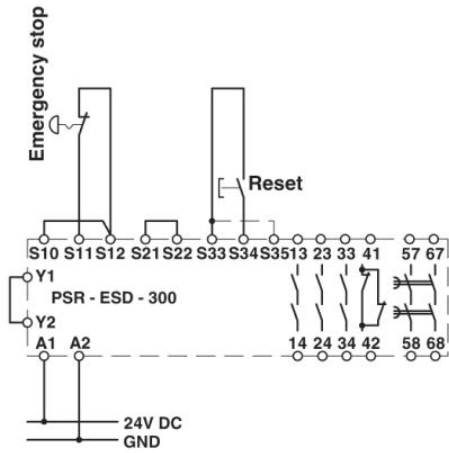
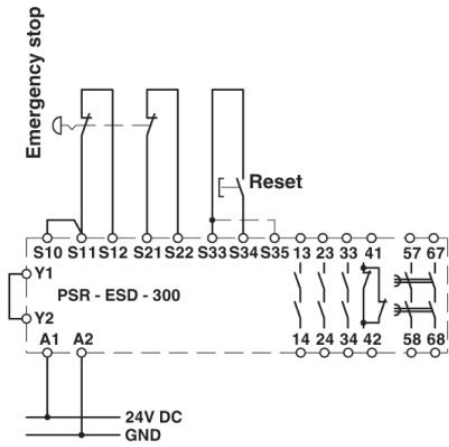
a = RESET  
 b = Emergency stop  
 Two-channel emergency stop circuit with cross circuiting detection and monitored reset button (bridge on S33/S35: Automatic activation), suitable up to safety category 4.



a = RESET  
 b = Emergency stop  
 Single-channel emergency stop circuit with monitored reset button (bridge on S33/S35: Automatic activation), suitable up to safety category 2, safety category 4 only when automatically disconnecting switches are used and cables are installed in separate plastic sheaths.



a = RESET  
 b = semiconductor output  
 Two-channel limit switch monitoring with semiconductor output and monitored reset button (bridge on S33/S35: Automatic activation), suitable up to safety category 4 depending on the limit switch.



**Address**

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