

PSR-SPP- 24DC/ESD/5X1/1X2/0T5

Order No.: 2981130



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1 or 2-channel safety relay for emergency off and safety door circuits with manual or automatic activation, 3 N/O contacts, 1 N/C contact, 2 N/O contacts with fixed 0.5 sec. drop out delay, Cat. 4 / EN 954-1, pluggable spring-cage terminal blocks, width: 45 mm



Commercial data

EAN	4017918953003
Pack	1 Pcs.
Customs tariff	85364900
Weight/Piece	0.4639 KG
Catalog page information	Page 25 (IF-2007)

Product notes

WEEE/RoHS-compliant since:
04/04/2008



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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	150 mA DC

Voltage at input/start and feedback circuit	Approx. 24 V DC
Typical response time	70 ms (manual start)
	600 ms (automatic start)
Typical release time	20 ms (undelayed contacts)
Concurrence input 1/2	Infinite
Recovery time	Approx. 1 s
Max. permissible overall conductor resistance	11 Ω (Input and start circuits at U_N)
Delay time	0.5 s ± 20 %

Output data

Contact type	3 enabling current paths undelayed, 2 delayed, 1 signaling current path undelayed
Contact material	AgSnO ₂
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, $\tau = 0$ ms)
	288 W (48 V DC, $\tau = 0$ ms)
	110 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)	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 (undelayed)
	4 A circuit-breaker C (undelayed)
	10 A gL/gG NEOZED (delayed)

General data

Length	112 mm
Width	45 mm
Height	114.5 mm

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Service life mechanical	Approx. 10 ⁷ 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, increased isolation and 6 kV between the output contact current paths (13/14, 23/24, 33/34) and the remaining current paths and the output contact current paths (13/14, 23/24, 33/34) themselves.)
Rated insulation voltage	250 V
Pollution degree	2
Surge voltage category	III

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	16
Stripping length	8 mm
Type of connection	Spring-cage conn.

Certificates / Approvals

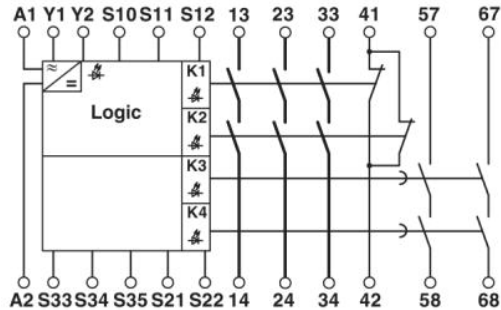


Certification

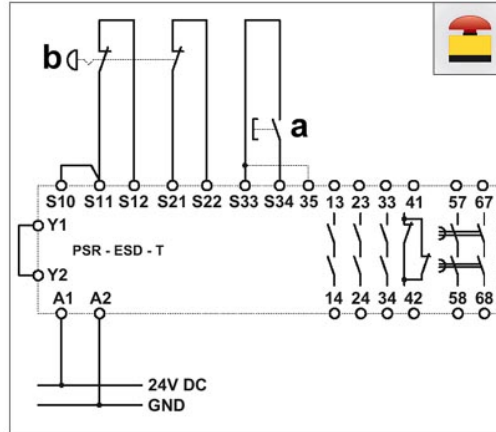
BG, CUL Listed, GOST, UL Listed

Drawings

Circuit diagram



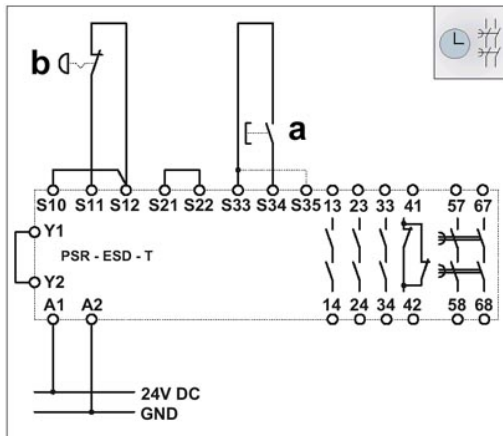
1 = logics



a = RESET

b = Emergency stop

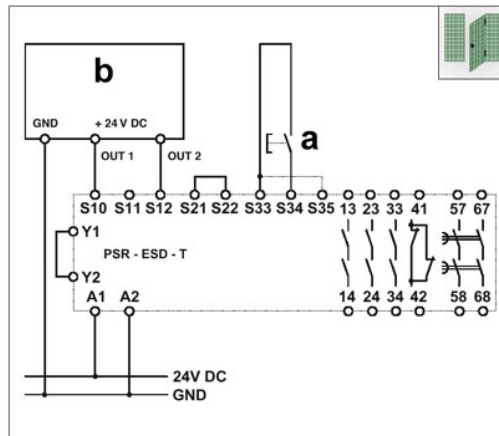
Two-channel emergency stop circuit with cross-circuiting detection and monitored reset button (bridge on S33/S35: Automatic activation), suitable up to safety category 4.



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.