

PSR-SCP- 24DC/ESD/5X1/1X2/300

Order No.: 2981428



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2981428>

Safety relay with adjustable delay time 0-300 s, screw version



Commercial data	
EAN	4017918975227
Pack	1 pcs.
Customs tariff	85364900
Weight/Piece	0.4724 KG
Catalog page information	Page 24 (IF-2009)

Product notes

WEEE/RoHS-compliant since:
03/29/2007



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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	155 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)
Typical release time range	0.2 s ... 300 s
Concurrence input 1/2	Infinite
Recovery time	1 s
Max. permissible overall conductor resistance	11 Ω (Input and start circuits at U _N)

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 (N/O contact)
	3 A (N/C contact)
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)
	77 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)
	40 W (48 V DC, τ = 40 ms)
	35 W (110 V DC, τ = 40 ms)
	33 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	114.5 mm
Depth	99 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)
Performance Level as per ISO 13849-1	d (For delayed contacts) e (For non-delayed contacts)
Functional safety (SIL)	SIL 2 as per IEC 61508 for delayed contacts SIL 3 as per IEC 61508 for undelayed contacts SIL 2 as per IEC 62061 for delayed contacts SIL 3 as per IEC 62061 for undelayed 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
MTTF _d	Approx. 65 years
T10d	6.5 years (maximum usage time of the device)
DC	60% (low) for delayed contacts > 90% (medium) for undelayed contacts
PFH	High demand: 1.1×10^{-7} 1/h (proof test interval (T ₁): 20 months) for delayed contacts High demand: 1.2×10^{-8} 1/h (proof test interval (T ₁): 33 months) for undelayed contacts
PFD _{AV}	Low demand: 5.0×10^{-3} (proof test interval (T ₁): 20 months) for delayed contacts Low demand: 9.6×10^{-4} (proof test interval (T ₁): 33 months) for undelayed contacts
Connection data	
Conductor cross section solid min.	0.2 mm ²

Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3
Type of connection	Screw connection

Certificates / Approvals

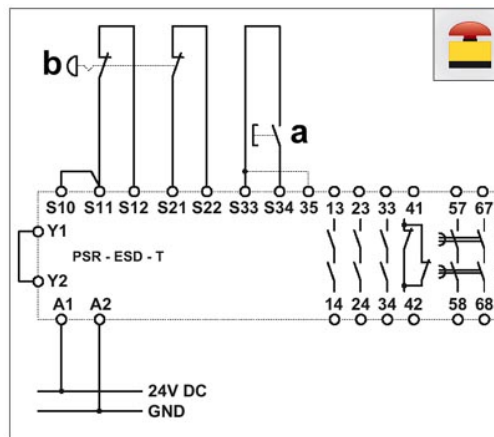
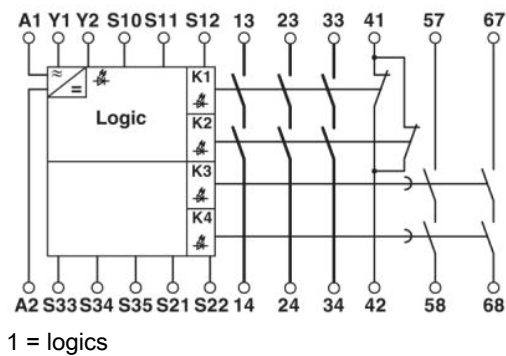


Certification

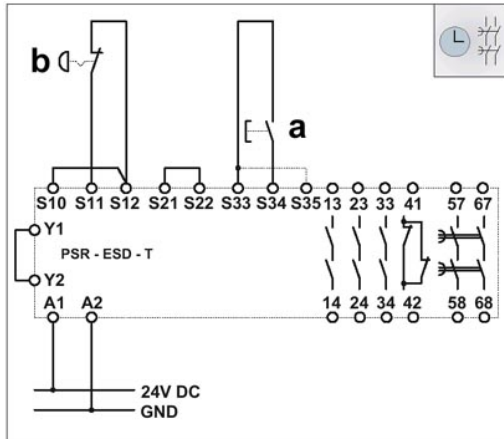
BG, CUL Listed, GOST, UL Listed

Drawings

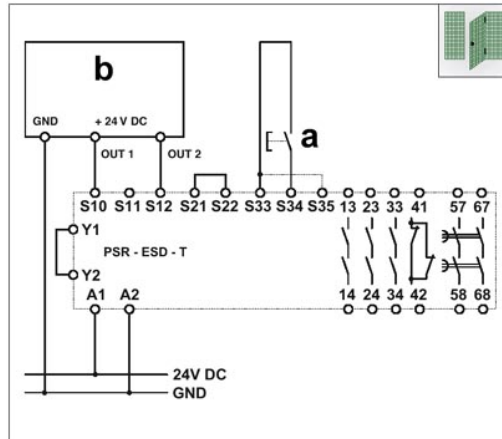
Circuit diagram



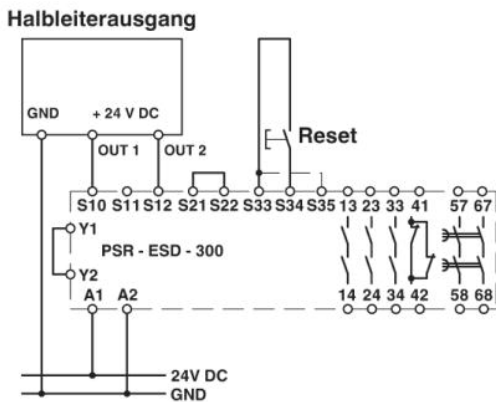
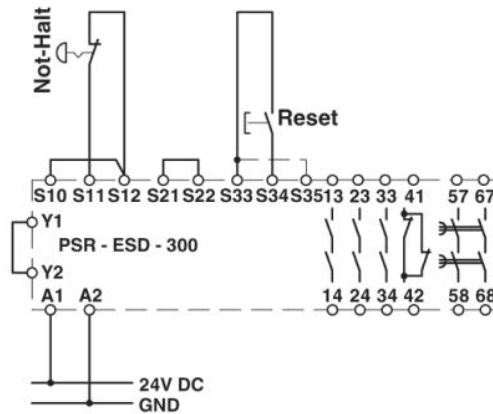
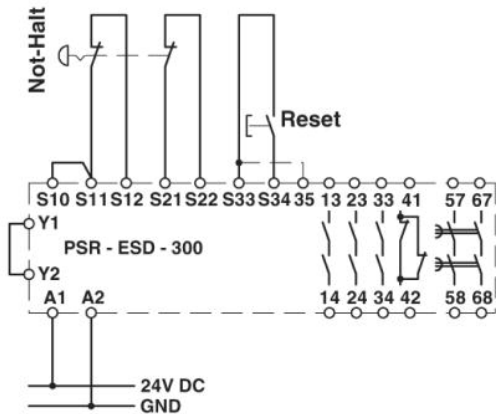
a = RESET
 b = Emergency stop
 Two-channel emergency stop circuit with cross circuiting detection and monitored reset button (bridge on S33/S35: Automatic activation), suitable up to safety category 4.



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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