

PSR-SPP- 24UC/ESAM4/8X1/1X2

Order No.: 2963996

The figure shows a version with a screw connection



<http://catalog.phoenixcontact.net/phoenix/treeViewClick.do?UID=2963996>

Safety relay for emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, single or two-channel operation, 8 enabling current paths, nominal input voltage of 24 V AC/DC, plug-in spring-cage terminal blocks



Commercial data

EAN	 4 017918 904814
sales group	G504
Pack	1 Pcs.
Customs tariff	85371099
Gross weight in pieces	0.5353 KG
Net weight per piece	0.42134 KG
Catalog page information	Page 72 (C-8-2013)

Product notes

WEEE/RoHS-compliant since:
03/24/2006



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Technical data

Dimensions

Width	45 mm
Height	112 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C

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	210 mA AC
	120 mA DC
Voltage at input/start and feedback circuit	approx. 24 V DC
Typical response time	60 ms (man. start)
	250 ms (Auto-start)
Typical release time	20 ms
Concurrence input 1/2	Infinite
Recovery time	1 s
Status display	Green LED
Max. permissible overall conductor resistance	approx. 11 Ω (Input and start circuits at U_N)

Output data

Contact type	8 enabling current paths
	1 signaling current path
Contact material	AgSnO ₂ , + 0.2 μ m Au
Minimum switching voltage	15 V AC/DC
Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A
Inrush current, minimum	25 mA
Maximum inrush current	6 A
Sq. Total current	50 A ² ($I_{TH}^2 = I_1^2 + I_2^2 + \dots + I_8^2$)
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
	C6 (24 V AC/DC) automatic device

General

Relay type	Electromechanically forcibly guided, dust-proof relay.
Mechanical service life	Approx. 10^7 cycles
Mounting type	DIN rail mounting
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Mounting position	any
Category according to EN 13849-1	4
Stop category	0
Designation	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated surge voltage / insulation	4 kV / Basic insulation, (safe isolation, reinforced insulation and 6 kV between input circuit and enabling current paths (63/64, 73/74, 83/84) and between 63/64, 73/74, 83/84 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 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
Connection method	Spring-cage connection

Certificates / Approvals



Certification

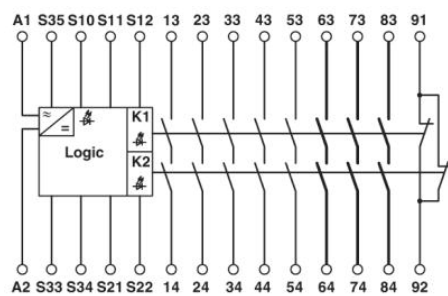
cULus Listed, GOST

Certifications applied for:

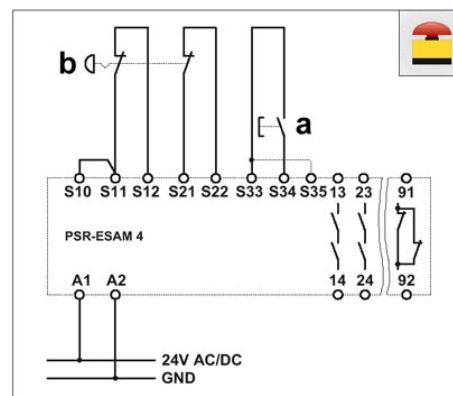
Certification Ex:

Drawings

Circuit diagram



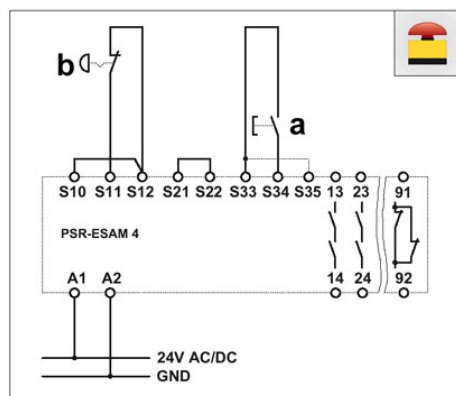
1 = logics



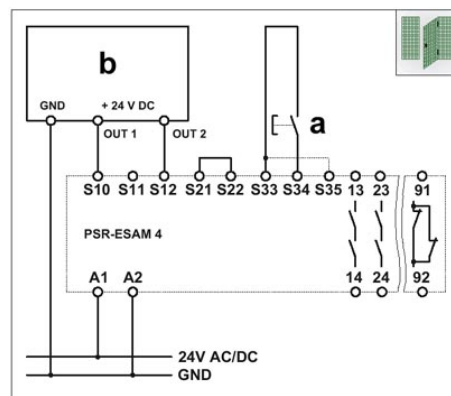
a = RESET

b = Emergency stop

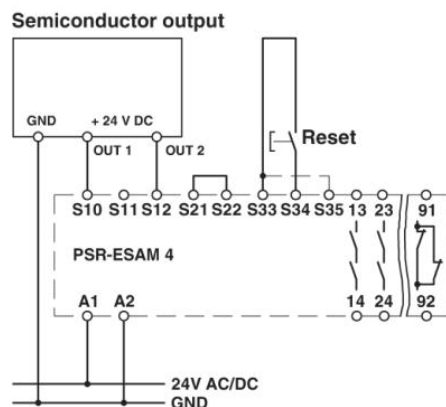
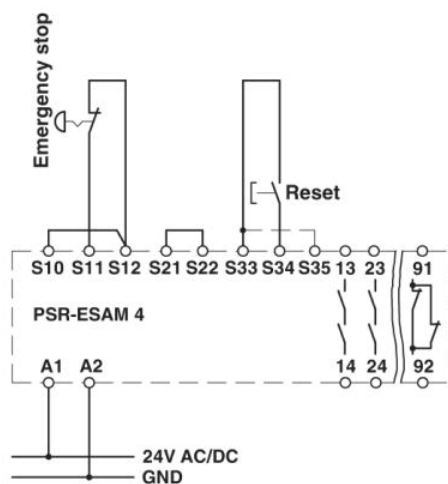
Two-channel emergency stop circuit with cross-circuiting detection and monitored reset button, suitable up to safety category 4.



a = RESET
 b = Emergency stop
 Two-channel emergency stop circuit with monitored reset button (bridge on S33/S35: Automatic activation), suitable up to safety category 2.



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



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