

Safety relays - PSR-SCP- 24UC/ESAM4/8X1/1X2 - 2963912

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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, automatically or manually monitored activation, 8 enabling current paths, nominal input voltage 24 V AC/DC

Product Features

- ✓ Up to Cat.4/PL e according to ISO 13849-1, SILCL3 according to IEC 62061
- ✓ Manually monitored and automatic activation in a single device
- ✓ Single and two-channel control
- ✓ 8 enabling current paths, 1 signaling current path



Key commercial data

Packing unit	1 PCE
Catalog page	Page 13 (IF-2011)
GTIN	 4 017918 899707
Custom tariff number	85364190
Country of origin	GERMANY

Technical data

Note:

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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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
Typical input current at U_N	120 mA DC

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Input data

Voltage at input/start and feedback circuit	approx. 24 V DC
Typical response time	60 ms (man. start)
Typical response time	250 ms (Auto-start)
Typical release time	20 ms
Concurrence input 1/2	Infinite
Recovery time	1 s
Max. permissible overall conductor resistance	approx. 11 Ω (Input and start circuits at U _N)

Output data

Contact type	8 enabling current paths
Contact type	1 signaling current path
Contact material	AgSnO ₂ , + 0.2 μm Au
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	50 A ² (I _{TH} ² = I ₁ ² + I ₂ ² + ... + I ₈ ²)
Interrupting rating (ohmic load) max.	144 W (24 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	288 W (48 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	110 W (110 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	88 W (220 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	1500 VA (250 V AC, τ = 0 ms)
Maximum interrupting rating (inductive load)	42 W (24 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	42 W (48 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	42 W (110 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	42 W (220 V DC, τ = 40 ms)
Switching capacity min.	0.4 W
Output fuse	6 A fast blow
Output fuse	C6 (24 V AC/DC) automatic device

General data

Width	45 mm
Height	99 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.

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General data

Mechanical service life	Approx. 10 ⁷ cycles
Mounting position	Any
Category according to EN 13849-1	4
Stop category	0
Name	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated surge voltage / insulation	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.	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
Connection method	Screw connection

Classifications

ETIM

ETIM 2.0	EC000196
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449

UNSPSC

UNSPSC 11	39121501
UNSPSC 12.01	39121501
UNSPSC 13.2	39121501
UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501

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Classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371901
eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 7.0	27371819

Approvals

Approvals

Approvals

UL Listed / GOST / cUL Listed / BG ETEM / BG ETEM / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed

GOST

cUL Listed

BG ETEM

BG ETEM

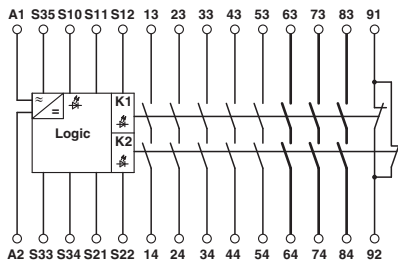
Safety relays - PSR-SCP- 24UC/ESAM4/8X1/1X2 - 2963912

Approvals



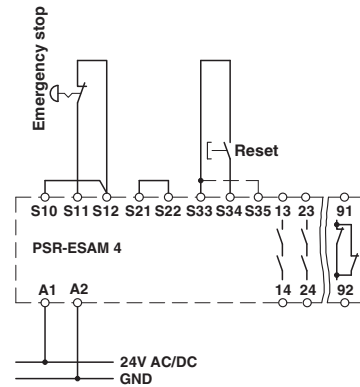
Drawings

Circuit diagram

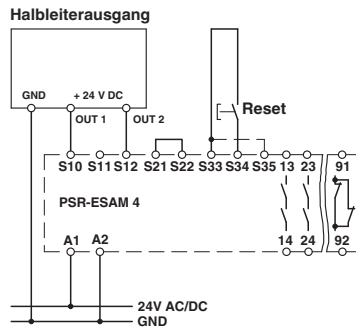


1 = logics

Circuit diagram

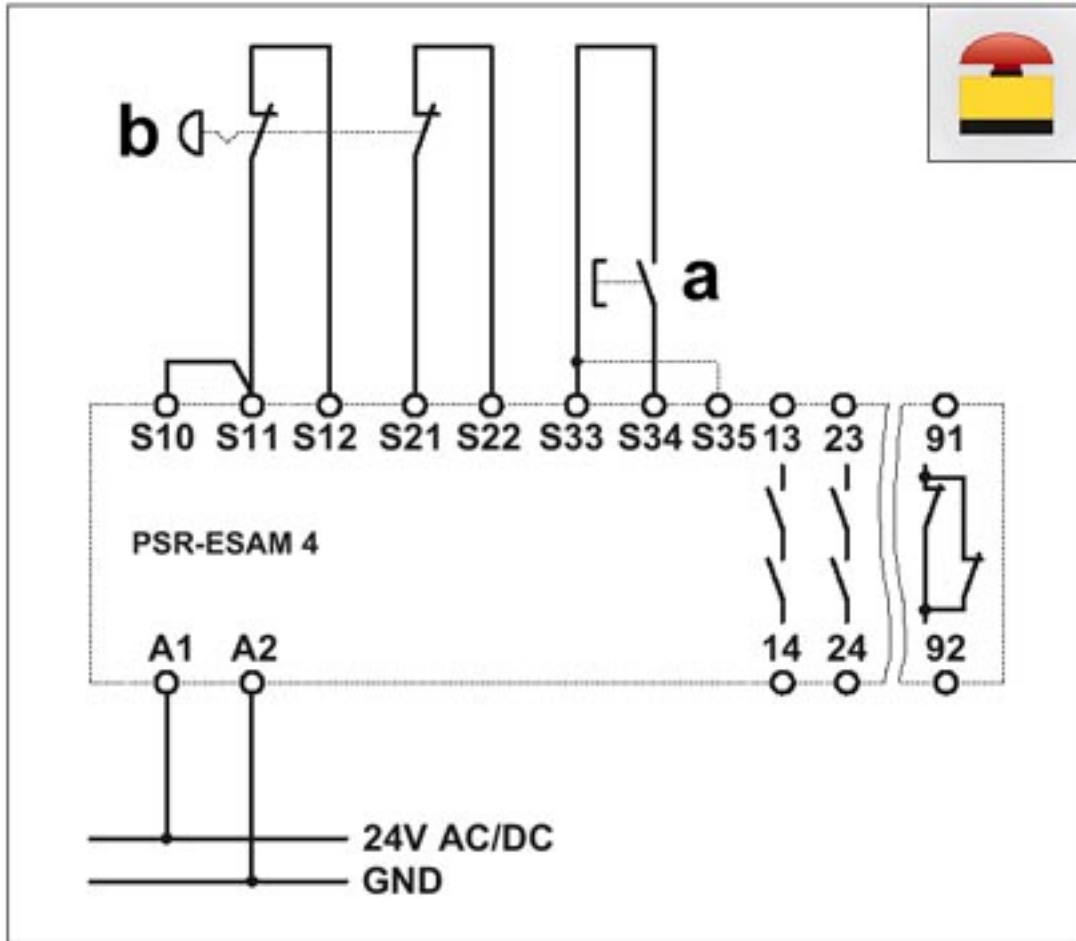


Circuit diagram



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Circuit diagram



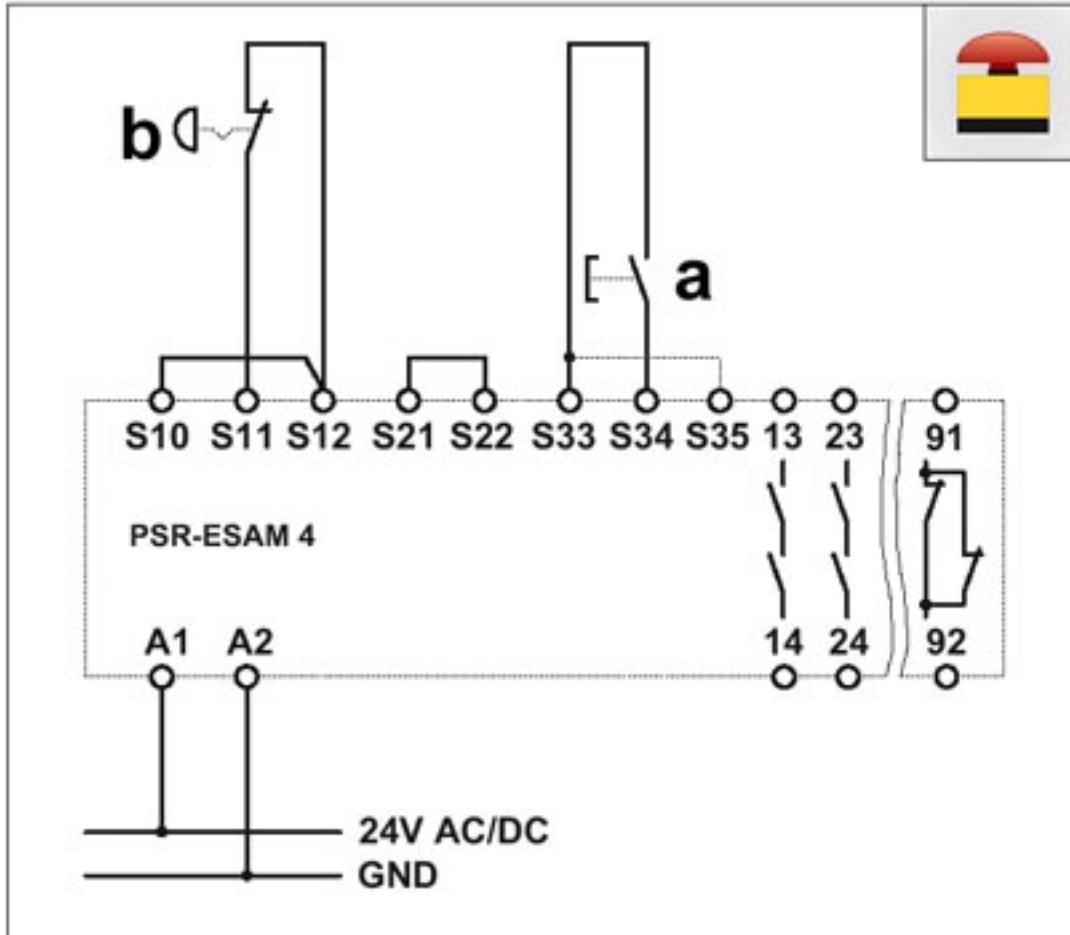
a = RESET

b = Emergency stop

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

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Circuit diagram



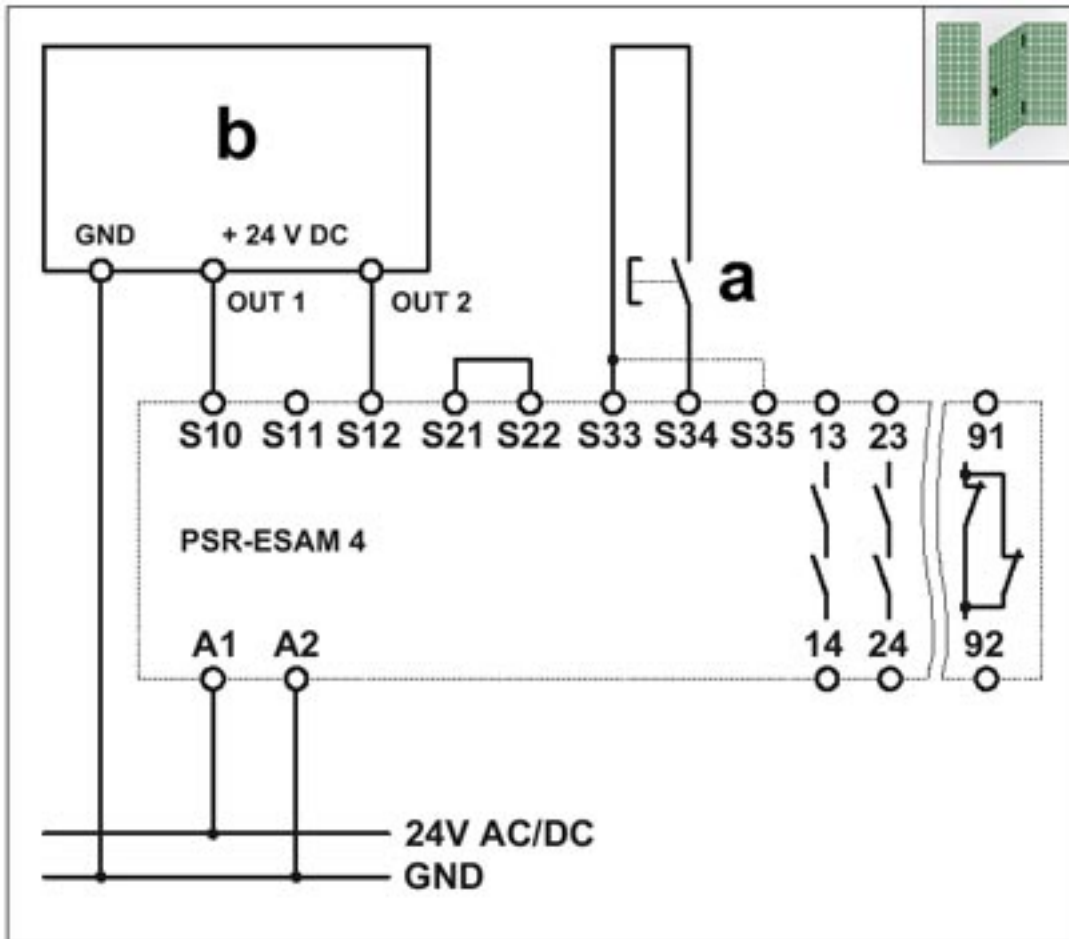
a = RESET

b = Emergency stop

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

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Circuit diagram



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.