

Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Safety relay for emergency stop, safety door, and magnetic switches, as well as light grid, up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, 2 N/O contacts, TBUS interface, automatic or manual activation, plug-in spring-cage connection terminal blocks

The figure shows a version with a screw connection

Product Features

- Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508
- Single and two-channel control
- 2 enabling current paths, 1 signaling current path
- For emergency stop and safety door monitoring, plus evaluation of light grids (suitable light grids available on request)
- Modular system with TBUS extension



Key commercial data

package_quantity	1
GTIN	4046356051699

Technical data

Note:

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
--------------------------------	---

Dimensions

Width	22.5 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 DC
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	70 mA
Voltage at input/start and feedback circuit	approx. 24 V DC

Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

Technical data

Input data

Typical response time	20 ms (manual start)
Typical response time	150 ms (automatic start)
Typical release time	10 ms
Recovery time	1 s
Max. permissible overall conductor resistance	50 Ω (Input and start circuits at U _N)

Output data

Contact type	2 enabling current paths
Contact type	1 semiconductor signaling output
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)
Limiting continuous current	100 mA (signal output)
Maximum inrush current	6 A
Inrush current, minimum	25 mA
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.	77 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)	48 W (24 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	40 W (48 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	35 W (110 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	33 W (220 V DC, τ = 40 ms)
Switching capacity min.	0.4 W
Output fuse	10 A gL/gG NEOZED (N/O contact)
Output fuse	(Miniature circuit breaker C6 (24 V / 20 A power supply unit))

General

Relay type	Electromechanically forcibly guided, dust-proof relay.
Mechanical service life	Approx. 10 ⁷ cycles
Mounting position	Any
Category according to EN 13849-1	2
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 isolation, (safe isolation, reinforced insulation and 6 kV between input circuit and enabling current paths.)
Rated insulation voltage	250 V
Pollution degree	2

Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

Technical data

General

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 conn.

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
eCl@ss 8.0	27371819

ETIM

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

UNSPSC

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

approvals

UL Listed / GOST / cUL Listed / Functional Safety / cULus Listed /

Approval details

Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

approvals

UL Listed

GOST

cUL Listed

Functional Safety

cULus Listed

accessories

DIN rail connector

PSR-TBUS - 2890425



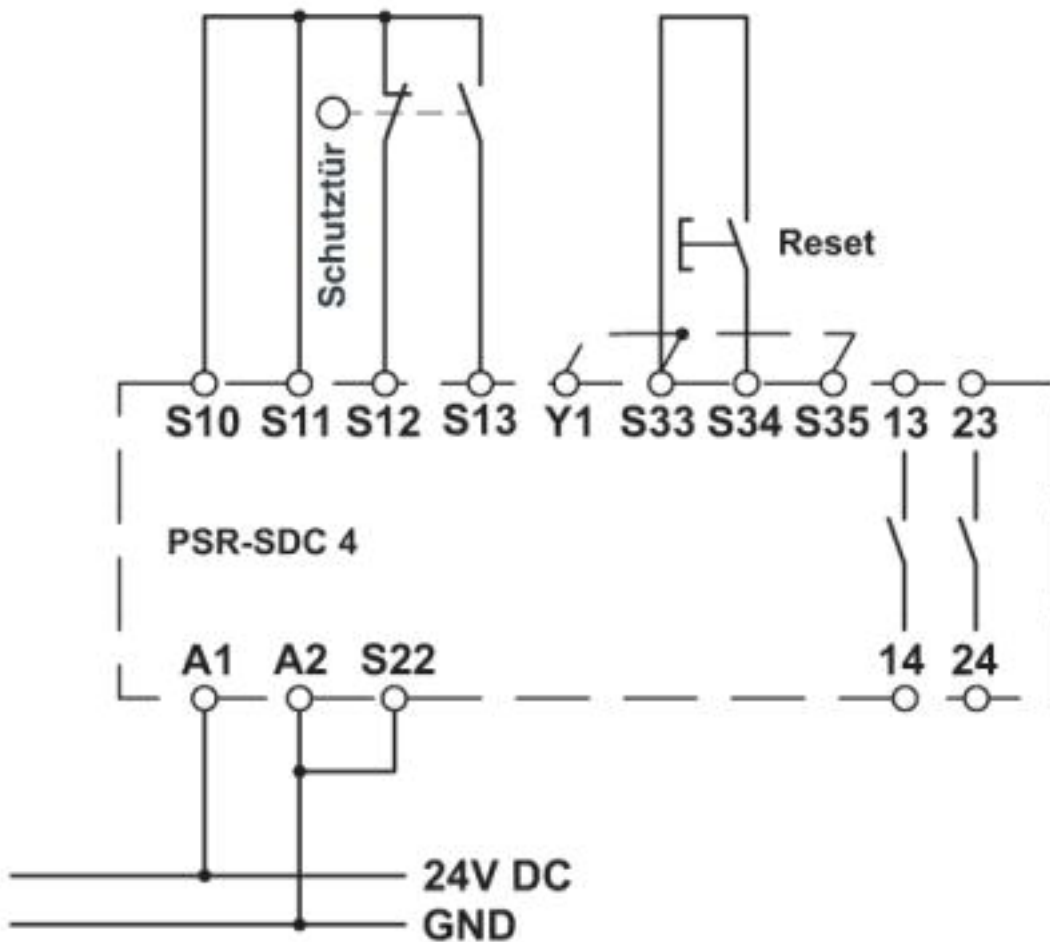
PSR-TBUS-TP - 2981716



Drawings

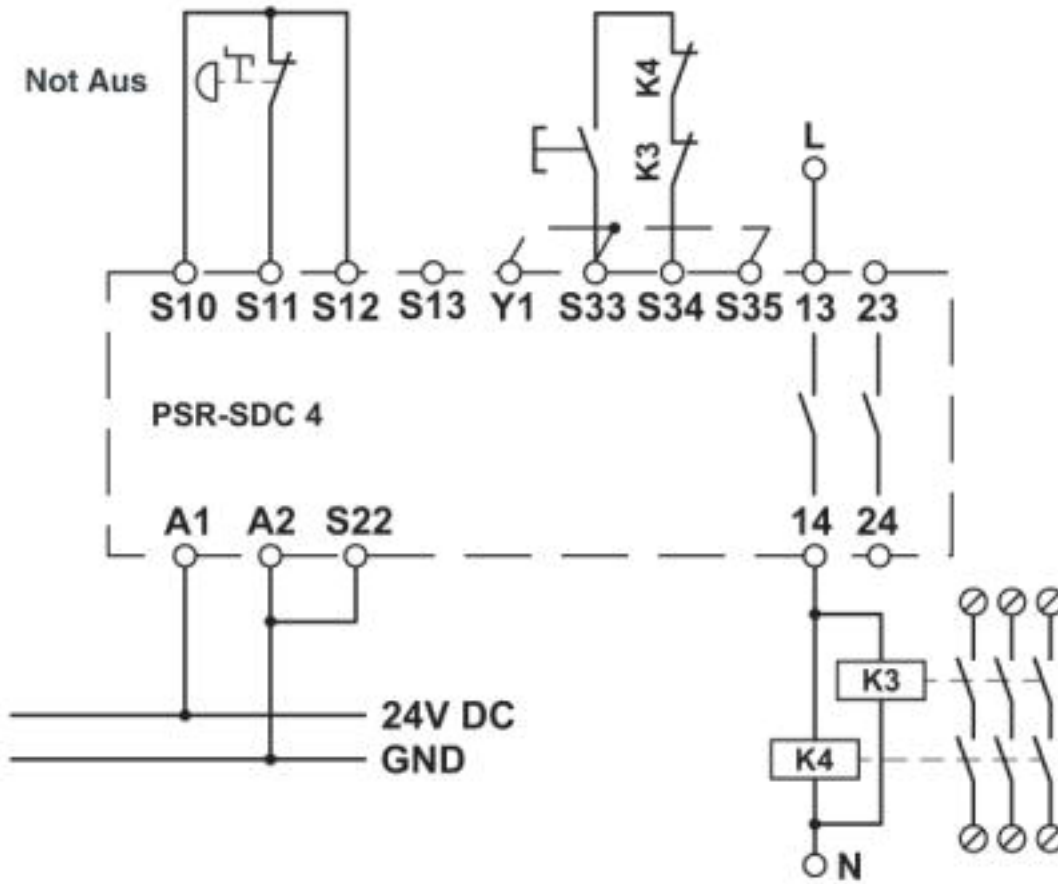
Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

Diagram



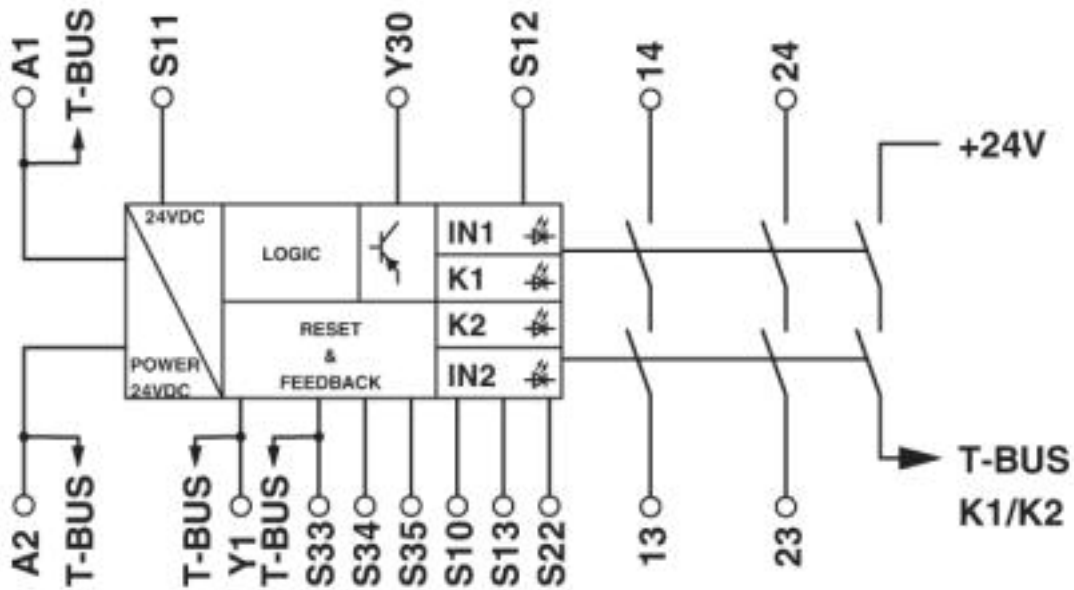
Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

Diagram

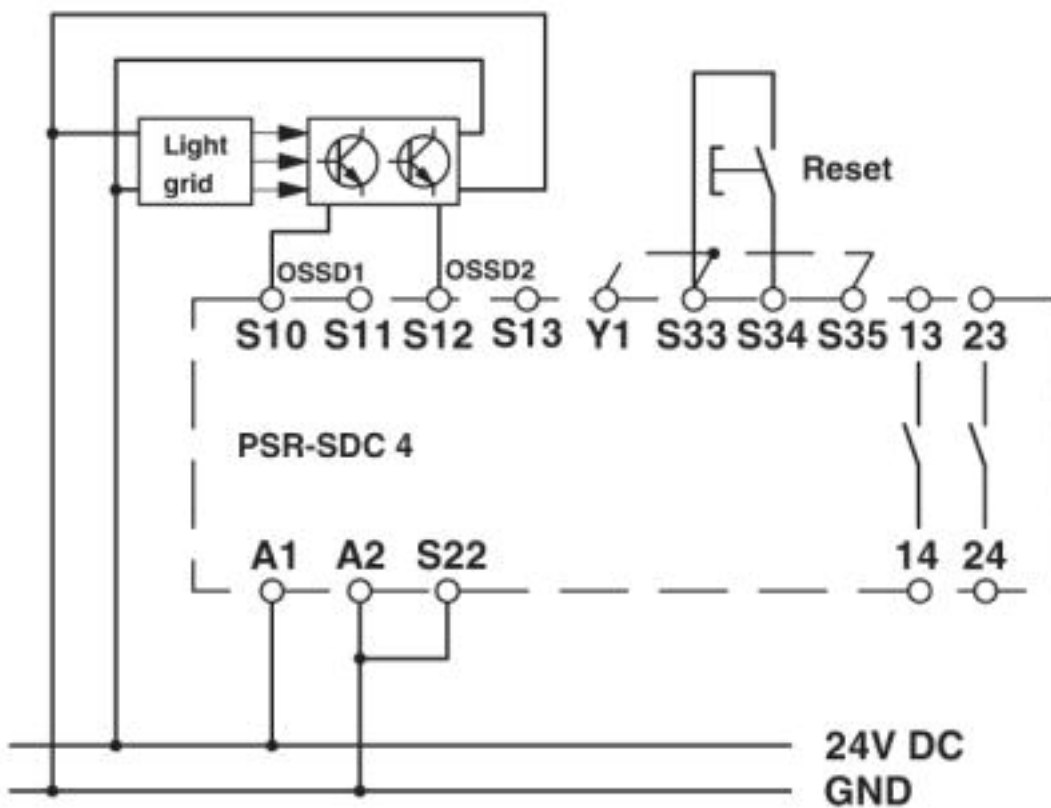


Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

Circuit diagram

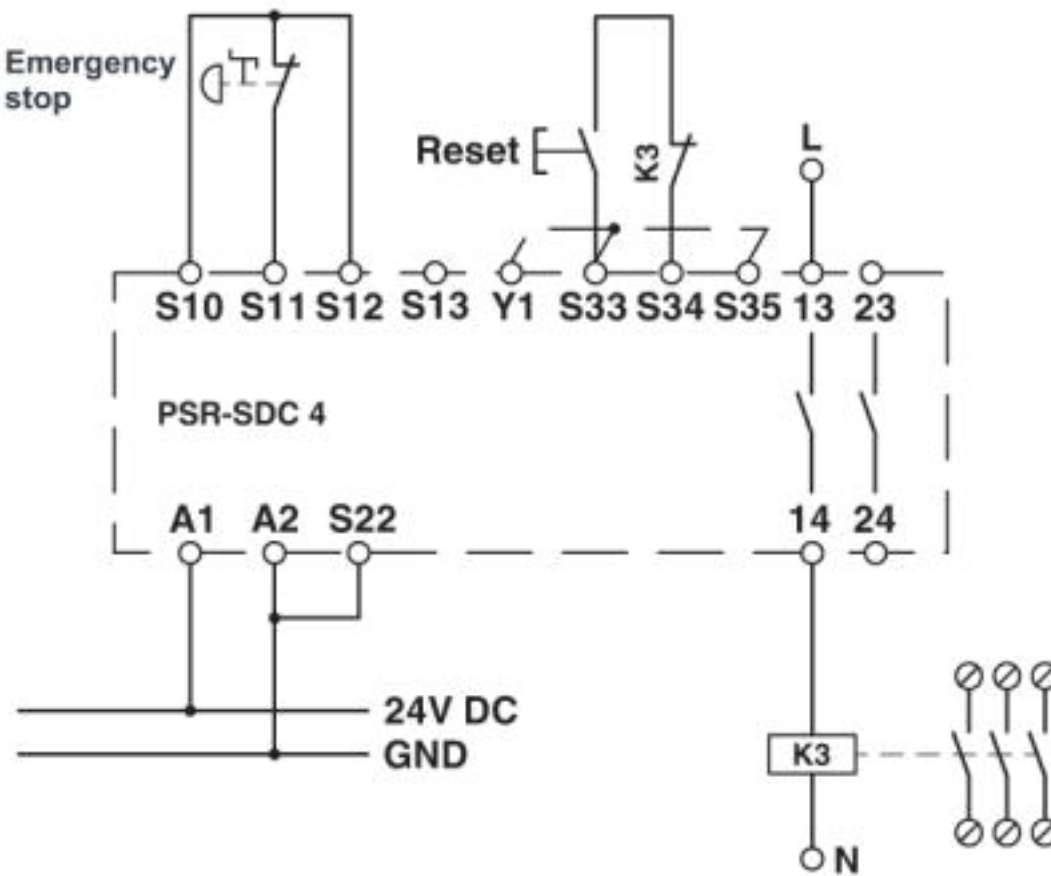


Circuit diagram



Safety relays - PSR-SPP- 24DC/SDC4/2X1/B - 2981499

Circuit diagram



© Phoenix Contact 2013 - all rights reserved
<http://www.phoenixcontact.com>