

## Safety relays - PSR-SCP- 24DC/SDC4/2X1/B - 2981486

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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 screw connection terminal blocks

### 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 T-bus extension



### Key commercial data

Packing unit	1 PCE
Catalog page	Page 23 (IF-2011)
GTIN	4 046356 051682
Custom tariff number	85364900
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 DC
Input voltage range in reference to $U_N$	0.85 ... 1.1
Typical input current at $U_N$	70 mA

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### Technical data

#### Input data

Voltage at input/start and feedback circuit	approx. 24 V DC
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 <sub>N</sub> )

#### Output data

Contact type	2 enabling current paths
Contact type	1 semiconductor signaling output
Contact material	AgSnO <sub>2</sub>
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
Sq. Total current	$72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2)$
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.	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 data

Width	22.5 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 <sup>7</sup> 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
Surge voltage category	III

#### Connection data

Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
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	EC001449
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

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Approvals

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

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Ex Approvals


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Approvals submitted

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### Approval details

UL Listed 

GOST 

cUL Listed 

Functional Safety

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## Approvals



## Accessories

### Accessories

Electronic housing - PSR-TBUS - 2890425



PSR-TBUS DIN rail connector, for supplying/controlling/monitoring (depending on the module)

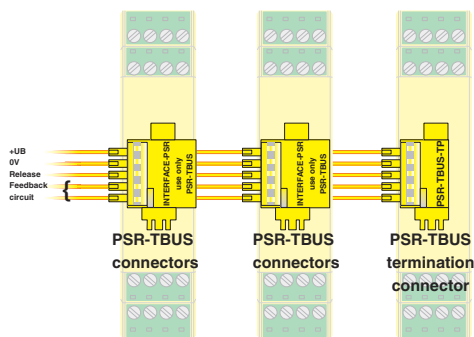
DIN rail connector - PSR-TBUS-TP - 2981716



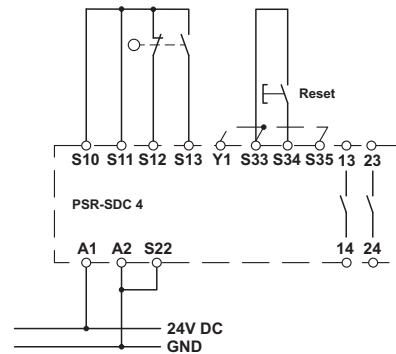
PSR-TBUS-TP dummy plug

## Drawings

Connection diagram



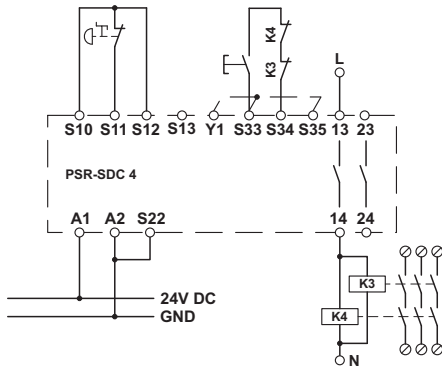
Diagram



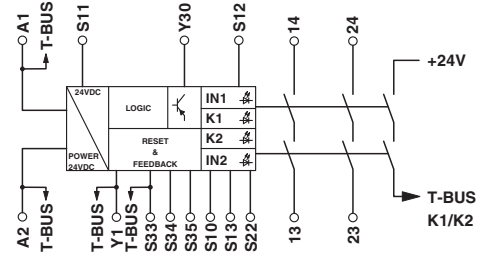
The TBUS connectors carry out the cross-wiring between the modules.

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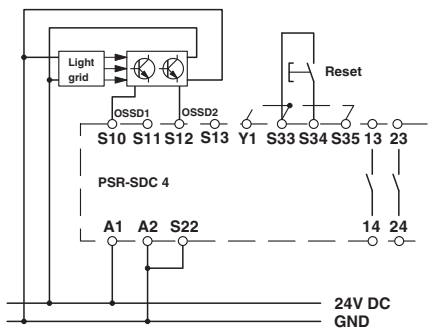
Diagram



Circuit diagram



Circuit diagram



Circuit diagram

