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

2981486

https://www.phoenixcontact.com/us/products/2981486

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 documentation. Our general terms of use for downloads are valid.



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

Your advantages

- Up to Cat. 4/PL e in accordance with ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508
- Modular system with TBUS extension
- For emergency stop and safety door monitoring, plus evaluation of light grids
- 2 enabling current paths, 1 signaling current path
- 1- and 2-channel control

ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2981486
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA211
GTIN	4046356051682
Weight per piece (including packing)	186 g
Weight per piece (excluding packing)	186 g
Customs tariff number	85371098
Country of origin	DE

Technical data

Product properties

Product type	Safety relays
Product family	PSRclassic
Application	Emergency stop
	Safety door
	Light grid
	Magnetic switch
Control	1 and 2 channel
Mechanical service life	approx. 10^7 cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Insulation characteristics

Overvoltage category	II, III (See the section “Insulation coordination”)
Degree of pollution	2

Times

Typical response time	20 ms (manual start)
	150 ms (automatic start)
Typical release time	10 ms
Recovery time	1 s

Electrical properties

Maximum power dissipation for nominal condition	5.6 W
Nominal operating mode	100% operating factor
Rated insulation voltage	250 V
Rated surge voltage/insulation	See data sheet, section “Insulation coordination”.

Supply

Designation	A1/A2, PSR-TBUS
Rated control circuit supply voltage U_S	24 V DC -15 % / +10 %
Rated control supply current I_S	typ. 70 mA
Power consumption at U_S	typ. 1.7 W
Protective circuit	Serial protection against polarity reversal
	Suppressor diode

Input data

Digital: Sensor circuit (S10, S12, S13, S22)

Description of the input	safety-related
Number of inputs	4
Concurrence	∞
Max. permissible overall conductor resistance	50 Ω
Protective circuit	Suppressor diode

Digital: Start circuit ()

Description of the input	non-safety-related

Output data

Relay: Enabling current paths (13/14, 23/24)

Output description	2 N/O contacts in series, safety-related, floating
Number of outputs	2
Contact switching type	2 enabling current paths
Contact material	$AgSnO_2$
Switching voltage	max. 250 V AC/DC
	min. 15 V AC/DC
Switching power	min. 0.4 W
Inrush current	min. 25 mA
	max. 6 A
Switching capacity	5 A (AC15)
	5 A (DC13)
Limiting continuous current	6 A
Sq. Total current	72 A^2 (observe derating)
Mechanical service life	10x 10^6 cycles
Output fuse	10 A gL/gG NEOZED

Signal: Y30

Output description	PNP
	non-safety-related
Number of outputs	1
Load/output load voltage output	min. 240 Ω
Voltage	typ. 23 V DC (U_S - 1 V)
Current	max. 100 mA
Switching frequency	1 Hz

Connection data

Connection technology

pluggable	yes

Conductor connection

Connection method	Screw connection
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 12
Stripping length	7 mm
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Material specifications

Color (Housing)	yellow (RAL 1018)
Housing material	PA

Characteristics

Safety data

Stop category (EN 60204-1)	0

Safety data: EN ISO 13849

Performance level (PL)	e (5 A DC13; 5 A AC15; 8760 switching cycles/year)

Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	3

Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	3

Safety data: EN IEC 62061

Safety Integrity Level (SIL)	3

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Maximum altitude	≤ 2000 m (Above sea level)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Shock (operation)	15g
Vibration (operation)	10 Hz ... 150 Hz, 2g

Approvals

CE

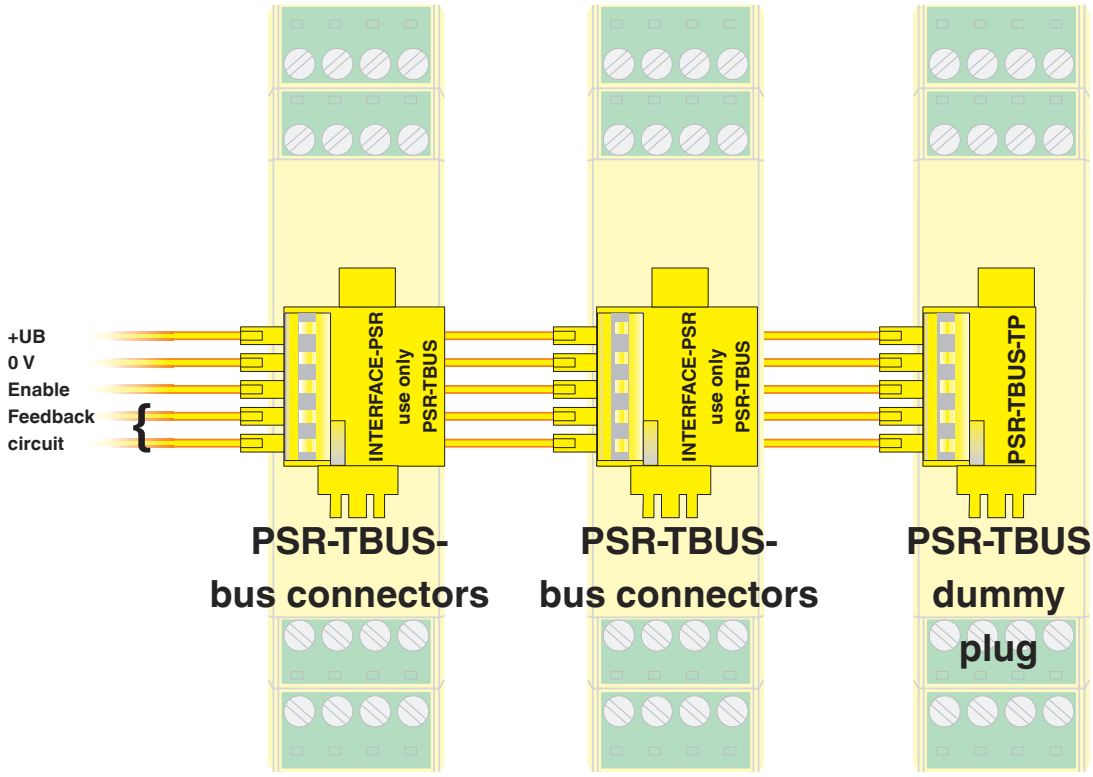
Identification	CE-compliant

Mounting

Mounting type	DIN rail mounting
Mounting position	any

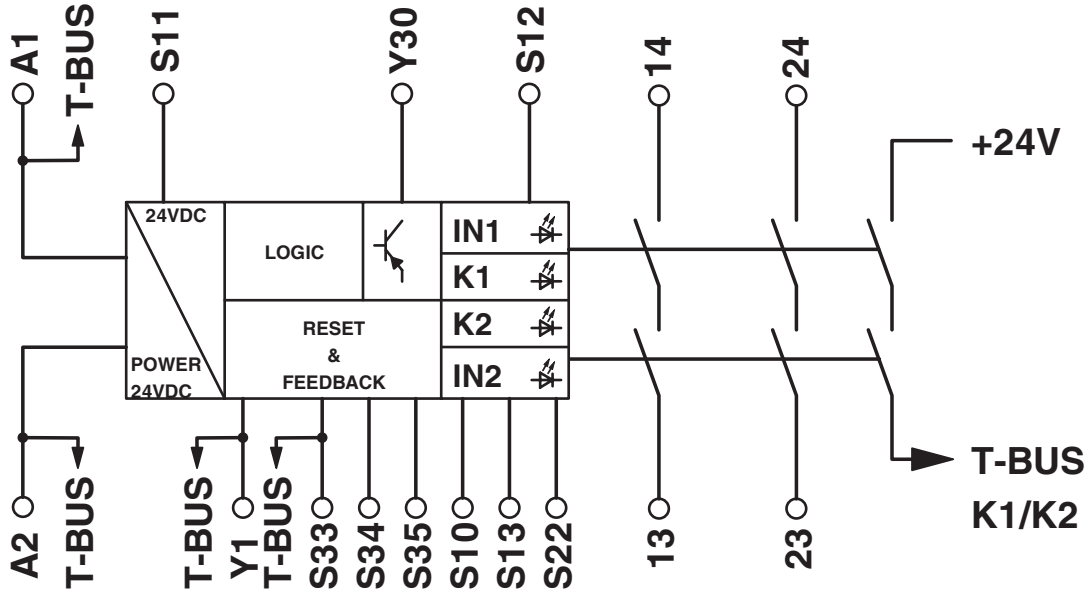
Drawings

Connection diagram



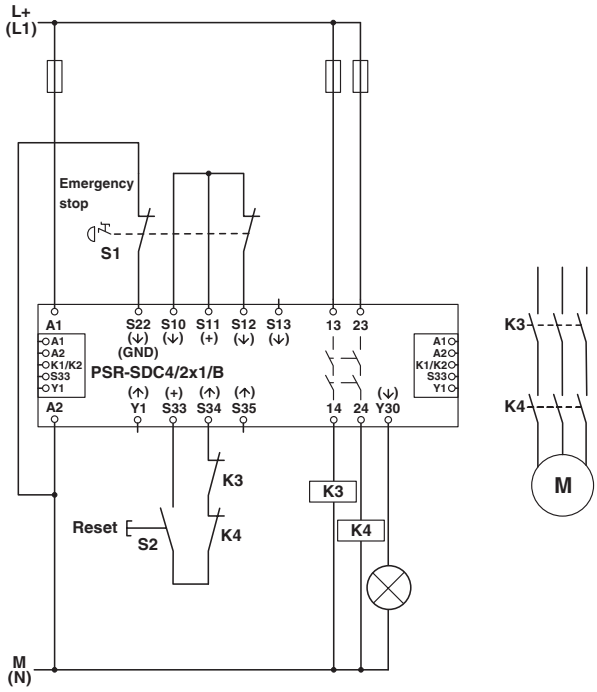
PSR-TBUS DIN rail connectors are used for cross-wiring between the modules.

Circuit diagram



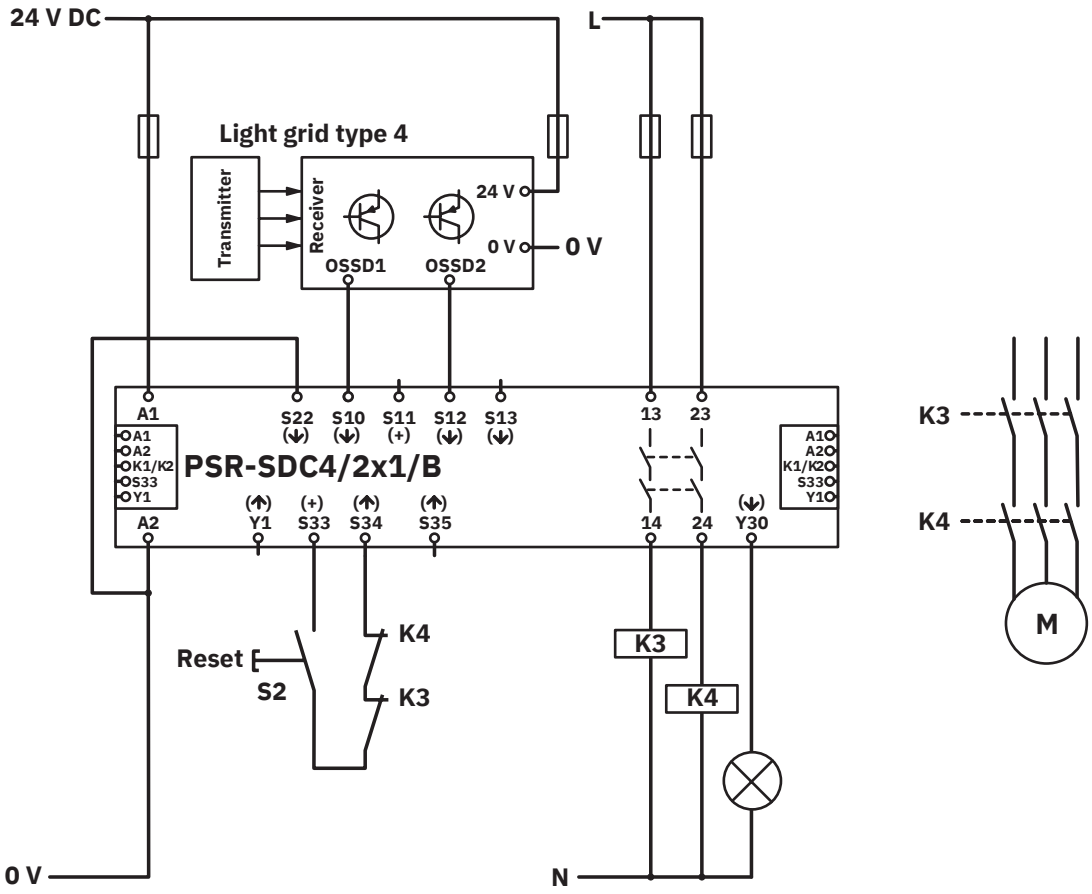
Block diagram

Circuit diagram



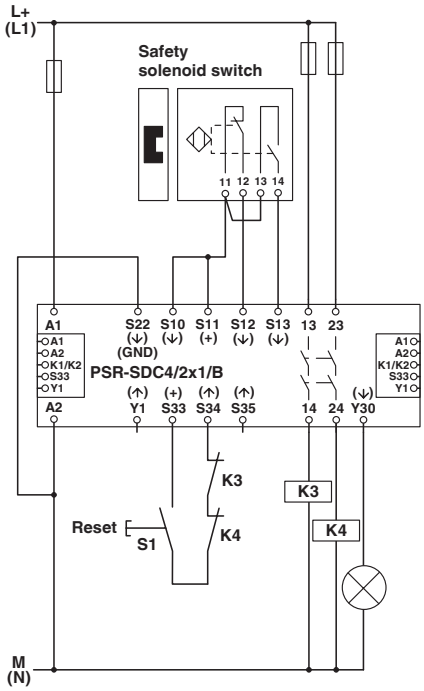
2-channel emergency stop monitoring

Circuit diagram



Light grid monitoring

Circuit diagram



Two-channel magnetic switch monitoring

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2981486

cULus Listed
Approval ID: E140324

Functional Safety
Approval ID: 01/205/0660.04/24

Classifications

ECLASS

ECLASS-13.0	27371819
ECLASS-15.0	27371819

ETIM

ETIM 10.0	EC001449

UNSPSC

UNSPSC 21.0	39122200

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(a)-I, 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	d72e7db1-94f1-4bbe-b1b1-ea81c50ae8cb

Phoenix Contact 2026 © - all rights reserved
https://www.phoenixcontact.com

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com