

Safety relays - PSR-SCP- 24DC/ESD/5X1/1X2/2T 5 - 2981208

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://phoenixcontact.com/download>)



Safety relay for emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, automatic or manual activation, 3 N/O contacts, 1 N/C contact, 2 N/O contacts with fixed 2.5 s dropout delay, plug-in screw connection terminal blocks


The figure shows a version of the product

Your advantages

- ✓ Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508 for undelayed contacts
- ✓ Up to Cat. 3/PL d according to ISO 13849-1, SILCL 2 for delayed contacts
- ✓ For emergency stop and safety door monitoring, plus evaluation of light grids
- ✓ Fixed delay times of 2.5 s
- ✓ 3 undelayed and 2 dropout delay contacts
- ✓ Single and two-channel control



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 956677
GTIN	4017918956677

Technical data

Note

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

Dimensions

Width	45 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

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

Safety relays - PSR-SCP- 24DC/ESD/5X1/1X2/2T 5 - 2981208

Technical data

Ambient conditions

Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Maximum altitude	≤ 2000 m (Above sea level)

Input data

Rated control circuit supply voltage U_s	24 V DC -15 % / +10 %
Rated control supply current I_s	typ. 150 mA
Power consumption at U_s	typ. 3.6 W
Inrush current	200 mA (at U_s)
	< 40 mA (with U_s/I_x to S10)
	< 150 mA (with U_s/I_x to S12)
	> -60 mA (with U_s/I_x to S22)
	< 40 mA (with U_s/I_x to S34)
	< 40 mA (with U_s/I_x to S35)
Current consumption	< 40 mA (with U_s/I_x to S10)
	< 40 mA (with U_s/I_x to S12)
	> -40 mA (with U_s/I_x to S22)
	0 mA (with U_s/I_x to S34)
	< 5 mA (with U_s/I_x to S35)
Voltage at input/start and feedback circuit	24 V DC -15 % / +10 %
Typical response time	< 600 ms (automatic start)
	< 70 ms (manual start)
Typ. starting time with U_s	< 600 ms (when controlled via A1)
Typical release time	< 20 ms (when controlled via S11/S12 and S21/S22)
	< 20 ms (when controlled via A1)
Concurrence input 1/2	∞
Recovery time	< 1 s
Operating voltage display	1 x green LED
Status display	4 x green LEDs
Protective circuit	Surge protection Suppressor diode
Maximum switching frequency	0.5 Hz
Max. permissible overall conductor resistance	approx. 11 Ω (Input and start circuits at U_s)
Delay time	K3(t), K4(t) fixed depending on model
Filter time	1 ms (at A1 in the event of voltage dips at U_s)
	max. 1.5 ms (at S10, S12; test pulse width)
	7.5 ms (at S10, S12; test pulse rate)
	Test pulse rate = 5 x Test pulse width

Output data

Contact type	5 enabling current paths
	1 signaling current path

Safety relays - PSR-SCP- 24DC/ESD/5X1/1X2/2T 5 - 2981208

Technical data

Output data

Contact material	AgSnO ₂
Maximum switching voltage	250 V AC/DC (Observe the load curve)
Minimum switching voltage	5 V AC/DC
Limiting continuous current	6 A (N/O contact, pay attention to the derating)
	6 A (N/C contact)
Maximum inrush current	20 A (Δt # 100 ms, undelayed contacts)
	8 A (delayed contacts)
Inrush current, minimum	10 mA
Sq. Total current	55 A ² (observe derating)
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, delayed contacts: 77 W)
	88 W (220 V DC, $\tau = 0$ ms)
	1500 VA (250 V AC, $\tau = 0$ ms, delayed contacts: 2000 VA)
Maximum interrupting rating (inductive load)	42 W (24 V DC, $\tau = 40$ ms, delayed contacts: 48 W)
	42 W (48 V DC, $\tau = 40$ ms, delayed contacts: 40 W)
	42 W (110 V DC, $\tau = 40$ ms, delayed contacts: 35 W)
	42 W (220 V DC, $\tau = 40$ ms, delayed contacts: 33 W)
Switching capacity min.	50 mW
Mechanical service life	10x 10 ⁶ cycles
Switching capacity (360/h cycles)	4 A (24 V DC)
	4 A (230 V AC)
Output fuse	10 A gL/gG (N/O contact)
	6 A gL/gG (N/C contact)

General

Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3
Nominal operating mode	100% operating factor
Net weight	450 g
Mounting position	any
Mounting type	DIN rail mounting
Degree of protection	IP20
	IP54
Min. degree of protection of inst. location	IP54
Housing material	PBT
Housing color	yellow

Connection data

Connection method	Screw connection
pluggable	Yes
Conductor cross section solid min.	0.2 mm ²

Safety relays - PSR-SCP- 24DC/ESD/5X1/1X2/2T 5 - 2981208

Technical data

Connection data

Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Safety-related characteristic data

Stop category	0
	1
Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	3 (for delayed contacts SIL 2)
Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	3 (for delayed contacts SIL 2)
Designation	EN ISO 13849
Performance level (PL)	e (for delayed contacts PL d)
Category	4 (Undelayed contacts)
	3 (delayed contacts)
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	3 (for delayed contacts SILCL 2)

Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated insulation voltage	250 V AC
Rated surge voltage/insulation	Basic insulation 4 kV: between all current paths and housing Safe isolation, reinforced insulation 6 kV: between 13/14, 23/24, 33/34, and the remaining current paths between 13/14, 23/24, 33/34 among one another
Degree of pollution	2
Overvoltage category	III
Shock	15g
Vibration (operation)	10 Hz ... 150 Hz, 2g
Conformance	CE-compliant

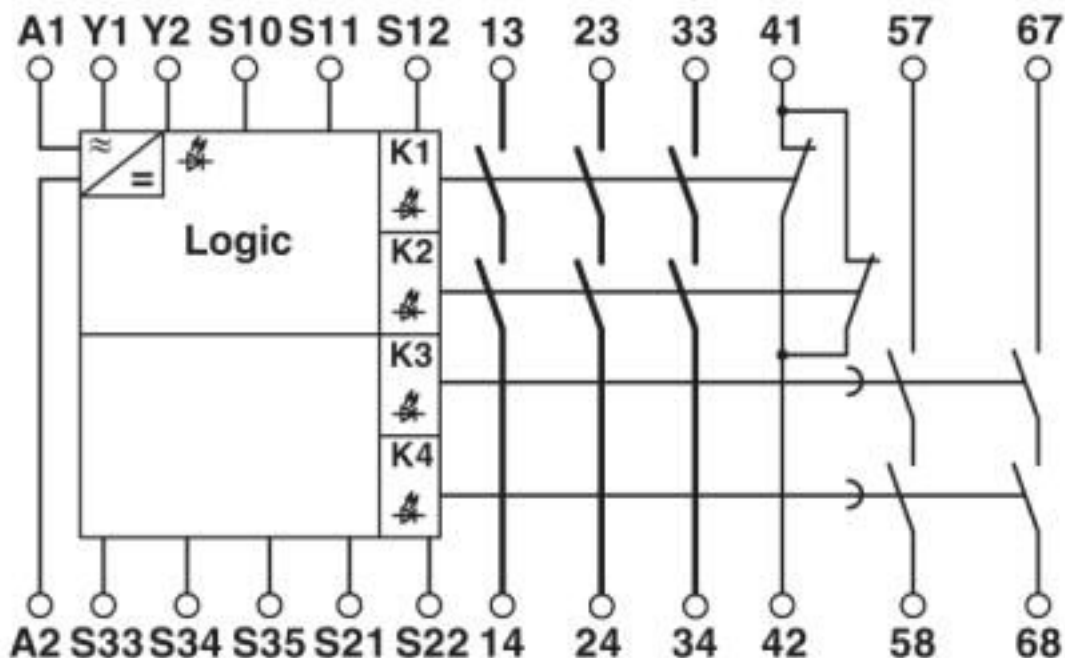
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Safety relays - PSR-SCP- 24DC/ESD/5X1/1X2/2T 5 - 2981208

Circuit diagram



Classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371901
eCl@ss 5.1	27371900
eCl@ss 6.0	27371800
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819

ETIM

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449
ETIM 6.0	EC001449

UNSPSC

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

Safety relays - PSR-SCP- 24DC/ESD/5X1/1X2/2T 5 - 2981208

Classifications

UNSPSC

UNSPSC 13.2	39121501
UNSPSC 19.0	39122205

Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Safety Relays](#) category:

Click to view products by [Phoenix Contact](#) manufacturer:

Other Similar products are found below :

[7-1618103-5](#) [1351-1X](#) [1618082-4](#) [1618111-1](#) [C200HDA003](#) [C200HMR432](#) [C200HMR832](#) [C200HMR833](#) [C28PEDRA](#) [20-050-36X](#)
[C500ETL01](#) [C500OD415CN](#) [2-1618068-0](#) [9-1618103-2](#) [SP10-ETL01](#) [22-060X](#) [C200HNC112](#) [C200HOD214](#) [C500CN812N](#) [4NK0AQY](#)
[1100X](#) [1100-42X](#) [V23050A1012A551](#) [6-1618082-4](#) [7-1618103-6](#) [WTD-101X](#) [SP16DRD](#) [SP16DRA](#) [C500-CE243](#) [C500-IDS02-V1](#)
[607.5111.020](#) [DOLD 48173](#) [CS AR-02V024](#) [CS AR-22V024](#) [CS AR-22V230](#) [CS AR-46V024](#) [750136](#) [PSR-MS21-1NO-1DO-24DC-SC](#)
[600PSR-165/300-CU](#) [J73KN-AM-22](#) [SR6V6K18](#) [SR4M4005](#) [BPS 36-1](#) [BP34 - 101057553](#) [2TLA010033R3000](#) [2TLA010033R2000](#)
[2TLA010033R0000](#) [2TLA010028R1000](#) [2TLA010017R0100](#) [2TLA010026R0400](#)