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1-channel contact extension with TBUS interface, 4 N/O contacts, 1 N/C contact, 1 confirmation current path, adjustable dropout delay of 0.5 ... 30 s, Cat. 3, PL e in accordance with EN ISO 13849, plug-in screw terminal blocks, width: 22.5 mm

## Your advantages

- Up to Cat. 3/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508
- Each with 4 enabling, 1 signaling, and 1 confirmation current path, all with dropout delay
- 1-channel control

## Commercial data

Item number	2981512
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA233
GTIN	4017918996802
Weight per piece (including packing)	233.86 g
Weight per piece (excluding packing)	169.88 g
Customs tariff number	85371098
Country of origin	DE

## Technical data

### Notes

#### Note on application

Note on application	Only for industrial use
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### Product properties

Product type	Safety relays
Product family	PSRclassic
Application	Extension module
Control	1-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	III
Degree of pollution	2

### Electrical properties

Maximum power dissipation for nominal condition	2.02 W
Nominal operating mode	100% operating factor
Rated insulation voltage	250 V
Rated surge voltage/insulation	4 kV / basic isolation (safe isolation, reinforced insulation and 6 kV between input circuit/N/C contacts and enabling current paths).

### Input data

#### General

Nominal input voltage $U_N$	24 V DC
Input voltage range in reference to $U_N$	0.85 ... 1.1
Typical input current at $U_N$	84 mA
Typical response time	20 ms
Typical release time range	0.5 s ... 38 s $\pm 20\%$ (BG rating to max. 30 s)
Recovery time	1 s
Protective circuit	Surge protection; Suppressor diode
	Fuse; PTC resistor
Operating voltage display	Green LED
Status display	LED (green)

### Output data

Contact switching type	4 delayed enabling current paths
	1 delayed signaling current path
	1 delayed confirmation current path

# PSR-SCP- 24DC/URD3/4X1/2X2 - Extension module

2981512

<https://www.phoenixcontact.com/us/products/2981512>



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) 3 A (N/C contact)
Maximum inrush current	6 A (N/O contact) 3 A (N/C contact)
Inrush current, minimum	25 mA
Sq. Total current	50 A <sup>2</sup> ( $I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2$ )
Interrupting rating (ohmic load) max.	114 W (24 V DC, $\tau = 0$ ms, N/C contact 65/66: 72 W) 288 W (48 V DC, $\tau = 0$ ms, N/C contact 65/66: 144 W) 77 W (110 V DC, $\tau = 0$ ms) 88 W (220 V DC, $\tau = 0$ ms) 1500 VA (250 V AC, $\tau = 0$ ms, N/C contact 65/66: 750 VA)
Maximum interrupting rating (inductive load)	48 W (24 V DC, $\tau = 40$ ms) 40 W (48 V DC, $\tau = 40$ ms) 35 W (110 V DC, $\tau = 40$ ms) 33 W (220 V DC, $\tau = 40$ ms)
Switching power min.	0.4 W
Switching capacity (360/h cycles)	6 A (24 V DC) 5 A (230 V AC)
Switching capacity (3600/h cycles)	3 A (24 V (DC13)) 3 A (230 V (AC15))
Output fuse	10 A gL/gG NEOZED (N/O contact) 4 A gL/gG NEOZED (N/C contact)

## Connection data

### Connection technology

pluggable	yes
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### Conductor connection

Connection method	Screw connection
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12
Stripping length	7 mm
Screw thread	M3

## Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

## Material specifications

# PSR-SCP- 24DC/URD3/4X1/2X2 - Extension module

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

## Characteristics

### Safety data

Stop category	1
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### Safety data: EN ISO 13849

Category	3 (In conjunction with suitable evaluating device)
Performance level (PL)	e (In conjunction with suitable evaluating device)

### Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
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### Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
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### Safety data: EN IEC 62061

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
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## 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	max. 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)

## Mounting

Mounting type	DIN rail mounting
Mounting position	any

PSR-SCP- 24DC/URD3/4X1/2X2 - Extension module

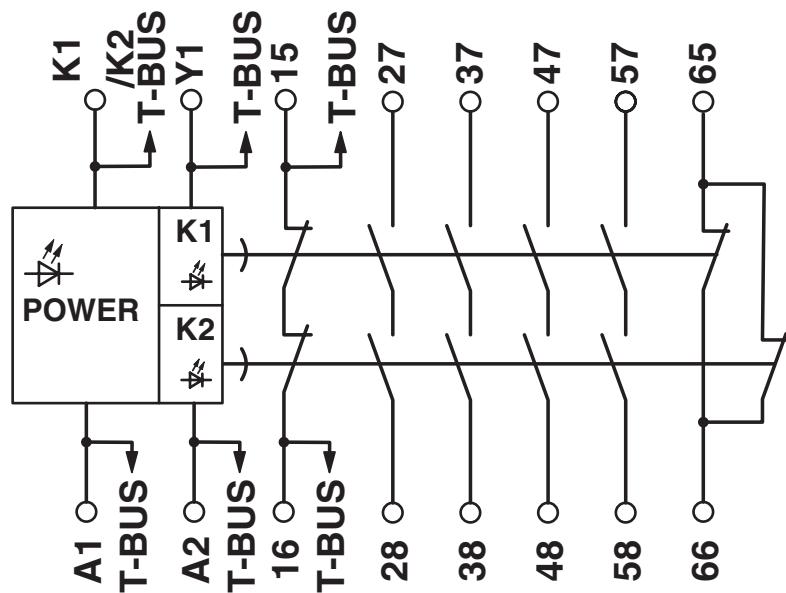
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## Drawings

## Circuit diagram



## Block diagram

## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2981512>



**cULus Listed**

Approval ID: E140324



**Functional Safety**

Approval ID: 968/EZ 366.05/23

## Classifications

### ECLASS

ECLASS-13.0	27371819
ECLASS-15.0	27371819
ECLASS-15.0 ASSET	27250101

### ETIM

ETIM 9.0	EC001449
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### UNSPSC

UNSPSC 21.0	39122200
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	34, 7(a), 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	11f0d21c-c86b-42e9-be12-2e177edf80f7

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