

# PSR-SPP- 24DC/SIM4 - Safety relays



2981949  
<https://www.phoenixcontact.com/in/products/2981949>

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.



Interface module for connecting several safety sensors or switches with N/C / N/O contacts to the PSR-SDC4 safety relay, plug-in Push-in terminal blocks

## Your advantages

- 4 two-channel N/O or N/C contact inputs
- Up to Cat. 3/PL d in accordance with EN ISO 13849-1, SIL 2 in accordance with IEC 61508 (in conjunction with the PSR-SDC4 master)
- 4 PLC diagnostic outputs for evaluating the switching state of the safety sensors
- 4 LEDs as status indicators for the relevant sensor/switch
- PSR-TBUS connection

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2981949       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | DNA           |
| Product key                          | DNA221        |
| GTIN                                 | 4046356325998 |
| Weight per piece (including packing) | 175 g         |
| Weight per piece (excluding packing) | 99.99 g       |
| Customs tariff number                | 85364190      |
| Country of origin                    | DE            |

## Technical data

### Notes

#### Note on application

|                     |                         |
|---------------------|-------------------------|
| Note on application | Only for industrial use |
|---------------------|-------------------------|

### Product properties

|                |                  |
|----------------|------------------|
| Product type   | Interface module |
| Product family | PSRclassic       |

#### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 2   |

### Electrical properties

|                                |                            |
|--------------------------------|----------------------------|
| Max. permissible current       | 100 mA (per signal output) |
| Max. permissible total current | 100 mA (alarm outputs)     |
| Nominal operating mode         | 100% operating factor      |
| Rated insulation voltage       | 50 V DC                    |
| Rated surge voltage            | 0.8 kV                     |

### Input data

|                                           |                    |
|-------------------------------------------|--------------------|
| Nominal input voltage $U_N$               | 24 V DC (from PSR) |
| Input voltage range in reference to $U_N$ | 0.85 ... 1.1       |
| Nominal input voltage $U_N$               | 24 V DC (from PSR) |

### Connection data

#### Connection technology

|           |     |
|-----------|-----|
| pluggable | yes |
|-----------|-----|

#### Conductor connection

|                                                                       |                                                                              |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------|
| Connection method                                                     | Push-in connection                                                           |
| Conductor cross-section rigid                                         | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                  |
| Conductor cross-section flexible                                      | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                  |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve  | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (only together with CRIMPFOX 6) |
| Conductor cross-section flexible, with ferrule without plastic sleeve | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (only together with CRIMPFOX 6) |
| Conductor cross-section AWG                                           | 24 ... 16                                                                    |
| Stripping length                                                      | 8 mm                                                                         |

### Signaling

|                        |             |
|------------------------|-------------|
| Status display         | LED (green) |
| Status display present | yes         |

# PSR-SPP- 24DC/SIM4 - Safety relays



2981949

<https://www.phoenixcontact.com/in/products/2981949>

## Dimensions

|        |         |
|--------|---------|
| Width  | 22.5 mm |
| Height | 117 mm  |
| Depth  | 106 mm  |

## Material specifications

|                  |    |
|------------------|----|
| Housing material | PA |
|------------------|----|

## Environmental and real-life conditions

### Ambient conditions

|                                         |                               |
|-----------------------------------------|-------------------------------|
| Degree of protection                    | IP20                          |
| Ambient temperature (operation)         | -20 °C ... 55 °C              |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C              |
| Maximum altitude                        | max. 2000 m (Above sea level) |

## Mounting

|                   |                           |
|-------------------|---------------------------|
| Assembly note     | in rows with zero spacing |
| Mounting position | any                       |

# PSR-SPP- 24DC/SIM4 - Safety relays

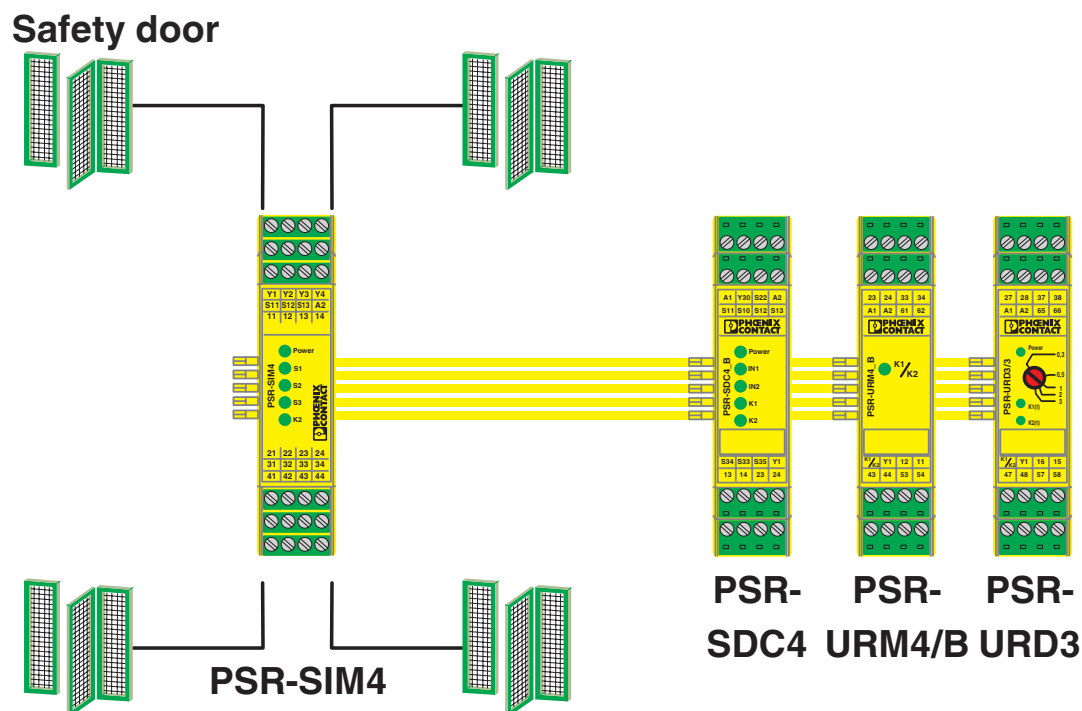
2981949

<https://www.phoenixcontact.com/in/products/2981949>



## Drawings

### Application drawing



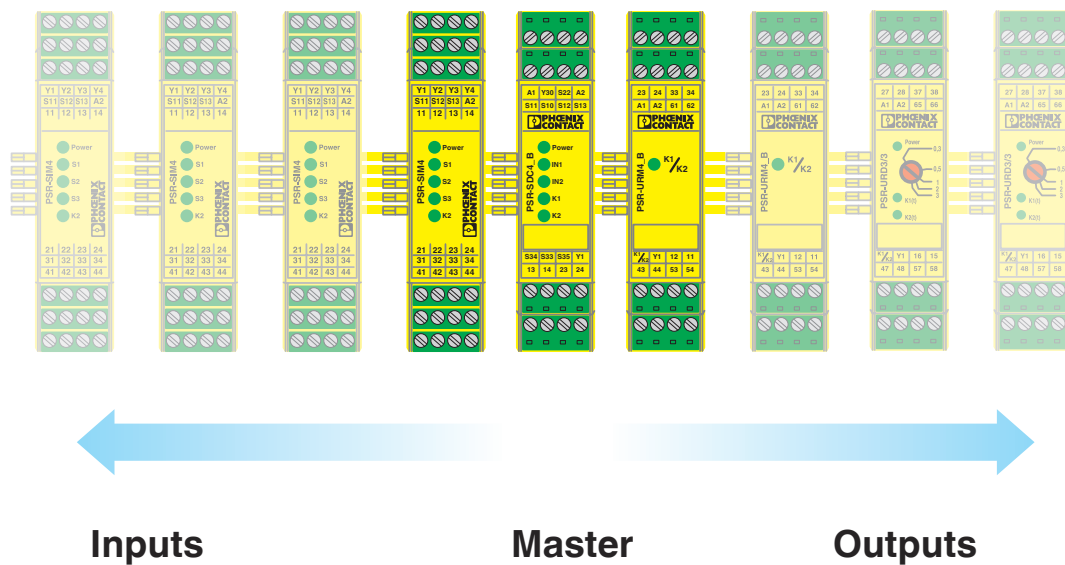
Up to 4 safety door switches can be connected to one PSR-SIM4.

# PSR-SPP- 24DC/SIM4 - Safety relays

2981949

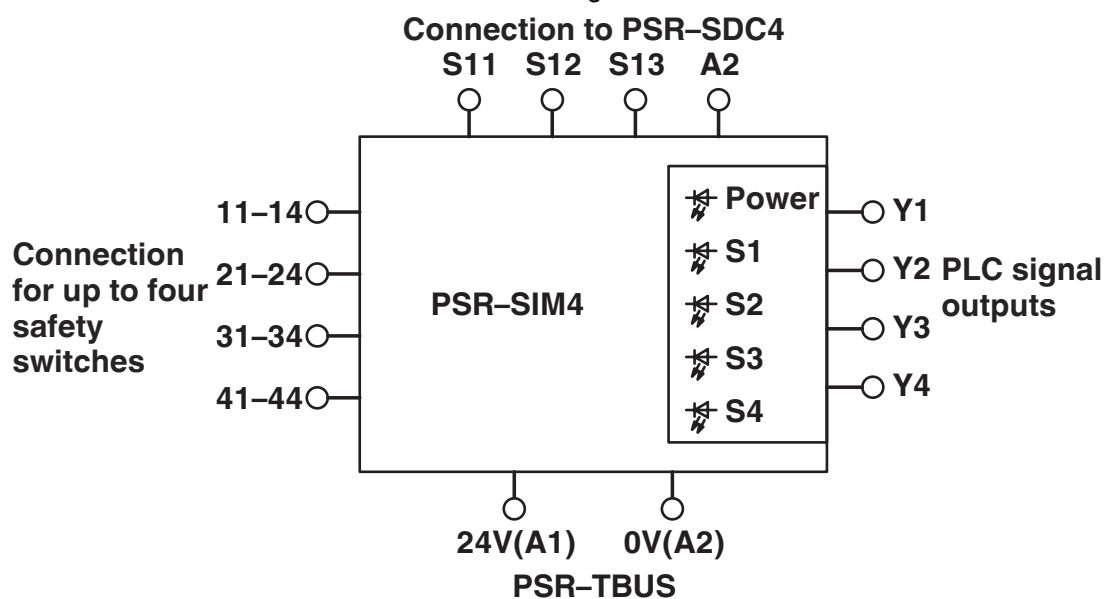
<https://www.phoenixcontact.com/in/products/2981949>

Application drawing



Additional inputs are aligned on the left of the PSR-SDC4, outputs are to its right.

Circuit diagram



Block diagram

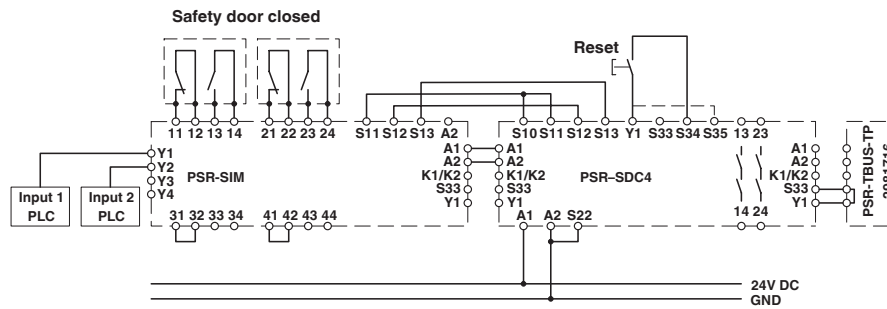
# PSR-SPP- 24DC/SIM4 - Safety relays



2981949

<https://www.phoenixcontact.com/in/products/2981949>

Circuit diagram



Contact extension

# PSR-SPP- 24DC/SIM4 - Safety relays



2981949

<https://www.phoenixcontact.com/in/products/2981949>

## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/2981949>



**cULus Listed**

Approval ID: E140324

# PSR-SPP- 24DC/SIM4 - Safety relays



2981949

<https://www.phoenixcontact.com/in/products/2981949>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371819 |
| ECLASS-15.0 | 27371819 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC001449 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122200 |
|-------------|----------|

## Environmental product compliance

### EU RoHS

|                                         |              |
|-----------------------------------------|--------------|
| Fulfills EU RoHS substance requirements | Yes          |
| Exemption                               | 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                                | 02fe4f76-9c2e-4db0-bebb-7a77c349bc39 |

# PSR-SPP- 24DC/SIM4 - Safety relays



2981949

<https://www.phoenixcontact.com/in/products/2981949>

## Accessories

### PSR-TBUS - DIN rail bus connector

2890425

<https://www.phoenixcontact.com/in/products/2890425>

DIN rail bus connector for safety switching devices, for supplying/controlling/monitoring (depending on the module)



---

### PSR-TBUS-TP - DIN rail bus connector

2981716

<https://www.phoenixcontact.com/in/products/2981716>

Blind plug for the PSR-TBUS DIN rail connector used with the modular safety relay system (PSR-SDC4)



# PSR-SPP- 24DC/SIM4 - Safety relays

2981949

<https://www.phoenixcontact.com/in/products/2981949>



## PSR-TBUS - 1PCS - DIN rail bus connector

1326060

<https://www.phoenixcontact.com/in/products/1326060>

DIN rail bus connector for safety switching devices, for supplying/controlling/monitoring (depending on the module)



---

## CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/in/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

---

Phoenix Contact 2025 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.  
A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420  
[info@phoenixcontact.co.in](mailto:info@phoenixcontact.co.in)