

2981376

<https://www.phoenixcontact.com/us/products/2981376>

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.



Safe coupling relay with force-guided contacts, 2 changeover contacts, 1-channel, fixed screw terminal block, width: 17.5 mm

Your advantages

- Suitable up to category 1, PL c (EN ISO 13849-1), SIL 1 (EN IEC 62061), SIL 1 (IEC 61508)
- Safe readback due to force-guided signal contact in accordance with EN 50205
- Easy proof test according to IEC 61508 thanks to integrated signal contact
- 1 or 2-channel control
- 2 changeover contacts (EN 50205 type B)
- 120 V version

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2981376 |
| Packing unit | 10 pc |
| Minimum order quantity | 1 pc |
| Sales key | DN01 |
| Product key | DNA162 |
| GTIN | 4017918952907 |
| Weight per piece (including packing) | 62.5 g |
| Weight per piece (excluding packing) | 61.97 g |
| Customs tariff number | 85364900 |
| Country of origin | DE |

PSR-SCF-120UC/URM/2X21 - Coupling relay



2981376

<https://www.phoenixcontact.com/us/products/2981376>

Technical data

Product properties

| | |
|-------------------------|--|
| Product type | Coupling relay |
| Product family | PSRclassic |
| Application | Safe switch off |
| | High demand |
| | Low demand |
| Control | 1 and 2 channel |
| Mechanical service life | 10x 10 ⁶ 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 |

Times

| | |
|--|--|
| Typ. starting time with U _s | 10 ms (with U _s / when controlled via A1) |
| Typical release time | 10 ms (with U _s / when controlled via A1) |
| Restart time | < 1 s (Boot time) |
| Recovery time | < 500 ms |

Electrical properties

| | |
|---|--|
| Maximum power dissipation for nominal condition | 6.31 W (at U _B = 132 V DC, U _S = 120 V, I _S = 9 mA, n = 1, I _L ² = 50 A ² , R _{contact} = 0.1 Ω _{40°C}) |
| 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 |
| Rated control circuit supply voltage U _S | 120 V AC/DC -15 % / +10 % |
| Rated control supply current I _S | typ. 9 mA |
| Power consumption at U _S | typ. 1.08 W |
| Filter time | 1 ms (at A1-A2; test pulse width) |
| | 1 s (at A1-A2; test pulse rate) |

Output data

Relay: Relay outputs (11/12/14, 21/22/24)

| | |
|------------------------|-----------------------|
| Output description | safety-related |
| Number of outputs | 2 |
| Contact switching type | 2 changeover contacts |
| Contact material | AgNi |
| Switching voltage | min. 5 V AC/DC |

PSR-SCF-120UC/URM/2X21 - Coupling relay



2981376

<https://www.phoenixcontact.com/us/products/2981376>

| | |
|---------------------------------------|--|
| | max. 250 V AC/DC |
| Switching capacity | min. 50 mW |
| Inrush current | min. 10 mA |
| | max. 6 A |
| Limiting continuous current | 5 A (N/O contact) |
| | 3.5 A (N/C contact) |
| Sq. Total current | 50 A ² |
| Switching frequency | max. 0.5 Hz |
| Mechanical service life | 10x 10 ⁶ cycles |
| Interrupting rating (ohmic load) max. | see load limit curve |
| Output fuse | 6 A gL/gG NEOZED (N/O contact) |
| | 4 A gL/gG NEOZED (N/O contact, low demand) |
| | 4 A gL/gG NEOZED (N/C contact) |

Connection data

Connection technology

| | |
|-----------|----|
| pluggable | no |
|-----------|----|

Conductor connection

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Conductor cross-section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 12 |
| Stripping length | 7 mm |
| Screw thread | M3 |
| Tightening torque | 0.6 Nm |

Signaling

| | |
|---------------------------|----------------|
| Operating voltage display | 1 x yellow LED |
|---------------------------|----------------|

Dimensions

| | |
|--------|---------|
| Width | 17.5 mm |
| Height | 75 mm |
| Depth | 60.5 mm |

Material specifications

| | |
|------------------|------------------|
| Color (Housing) | green (RAL 6021) |
| Housing material | PC |

Characteristics

Safety data

| | |
|---------------|---|
| Stop category | 0 |
|---------------|---|

Safety data: EN ISO 13849

| | |
|----------|---|
| Category | 1 |
|----------|---|

PSR-SCF-120UC/URM/2X21 - Coupling relay



2981376

<https://www.phoenixcontact.com/us/products/2981376>

| | |
|--------------------------------------|---|
| Performance level (PL) | c |
| Safety data: IEC 61508 - High demand | |
| Safety Integrity Level (SIL) | 1 |
| Safety data: IEC 61508 - Low demand | |
| Safety Integrity Level (SIL) | 1 |
| Safety data | |
| Safety Integrity Level (SIL) | 1 |

Environmental and real-life conditions

Ambient conditions

| | |
|--|---|
| Degree of protection | IP20 |
| Min. degree of protection of inst. location | IP54 |
| Ambient temperature (operation) | -20 °C ... 50 °C |
| Ambient temperature (storage/transport) | -20 °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 | N/O contact: 10g, N/C contact: 5g |
| Vibration (operation) | 10 Hz ... 150 Hz, amplitude 0.35 mm, 2 g |

Approvals

CE

| | |
|----------------|--------------|
| Identification | CE-compliant |
|----------------|--------------|

Mounting

| | |
|-------------------|------------------------|
| Mounting type | DIN rail mounting |
| Mounting position | vertical or horizontal |

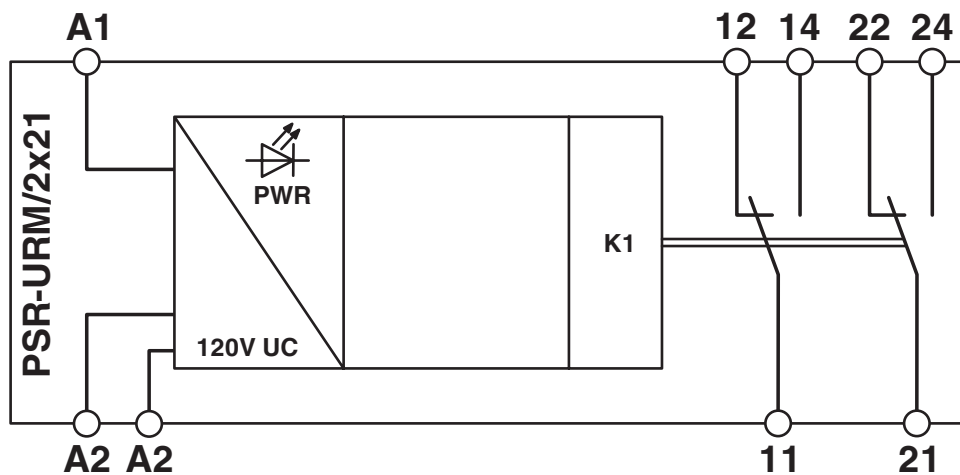
PSR-SCF-120UC/URM/2X21 - Coupling relay

2981376

<https://www.phoenixcontact.com/us/products/2981376>

Drawings

Block diagram



Block diagram

PSR-SCF-120UC/URM/2X21 - Coupling relay



2981376

<https://www.phoenixcontact.com/us/products/2981376>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2981376>



UL Listed

Approval ID: E140324



cUL Listed

Approval ID: E140324



Functional Safety

Approval ID: 3535 2399



Functional Safety

Approval ID: 4478015124312

PSR-SCF-120UC/URM/2X21 - Coupling relay



2981376

<https://www.phoenixcontact.com/us/products/2981376>

Classifications

ECLASS

| | |
|-------------------|----------|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |
| ECLASS-15.0 ASSET | 27250101 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

PSR-SCF-120UC/URM/2X21 - Coupling relay



2981376

<https://www.phoenixcontact.com/us/products/2981376>

Environmental product compliance

EU RoHS

| | |
|---|------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a) |

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 | c9ab4e06-33f0-49ae-9591-e84d005c2430 |

Phoenix Contact 2025 © - 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