

# PSR-SCF- 24UC/URM/2X21 - Coupling relay



2981363

<https://www.phoenixcontact.com/us/products/2981363>

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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)

## Commercial data

Item number	2981363
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA162
GTIN	4017918946906
Weight per piece (including packing)	60.9 g
Weight per piece (excluding packing)	56.667 g
Customs tariff number	85364900
Country of origin	DE

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## 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 <sup>6</sup> 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 <sub>s</sub>	10 ms (with U <sub>s</sub> / when controlled via A1)
Typical release time	10 ms (with U <sub>s</sub> / when controlled via A1)
Restart time	< 1 s (Boot time)
Recovery time	< 500 ms

### Electrical properties

Maximum power dissipation for nominal condition	5.87 W (at U <sub>B</sub> = 26.4 V DC, U <sub>S</sub> = 24 V, I <sub>S</sub> = 30 mA, n = 1, I <sub>L</sub> <sup>2</sup> = 50 A <sup>2</sup> , R <sub>contact</sub> = 0.1 Ω <sub>max</sub> )
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 <sub>S</sub>	24 V AC/DC -15 % / +10 %
Rated control supply current I <sub>S</sub>	typ. 30 mA
Power consumption at U <sub>S</sub>	typ. 0.72 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

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	max. 250 V AC/DC
Switching power	min. 50 mW
Inrush current	min. 10 mA max. 6 A
Switching capacity	3 A (AC15, 250 V) 3 A (DC13, 24 V)
Limiting continuous current	5 A (N/O contact) 3.5 A (N/C contact)
Sq. Total current	50 A <sup>2</sup>
Switching frequency	max. 0.5 Hz
Mechanical service life	10x 10 <sup>6</sup> 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
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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
Tightening torque	0.6 Nm

## Signaling

Operating voltage display	1 x yellow LED
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## 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 (EN 60204-1)	0
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Safety data: EN ISO 13849

Performance level (PL)	c
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Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	1
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Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	1
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Safety data

Safety Integrity Level (SIL)	1
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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 ... 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
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## Mounting

Mounting type	DIN rail mounting
Mounting position	vertical or horizontal

# PSR-SCF- 24UC/URM/2X21 - Coupling relay

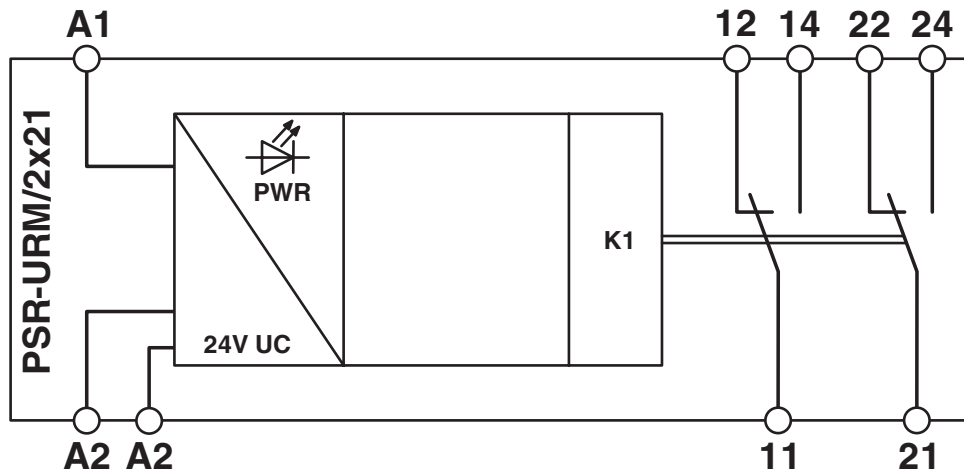


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## Drawings

Block diagram



Block diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2981363>



### UL Listed

Approval ID: E140324



### cUL Listed

Approval ID: E140324



### Functional Safety

Approval ID: 3535 2399



### Functional Safety

Approval ID: 3535 2399



### cUL Listed

Approval ID: E140324



### UL Listed

Approval ID: E140324



### Functional Safety

Approval ID: 4478015124312



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## Classifications

### ECLASS

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

### ETIM

ETIM 10.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## 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	37f55c9f-7a41-4cde-9ed4-046226b658b1

### EF3.1 Climate Change

CO2e kg	1.745 kg CO2e
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