

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



2981376

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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)
- 120 V version

Commercial data

Item number	2981376
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	DD
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

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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 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 _{max})
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

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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 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
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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
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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

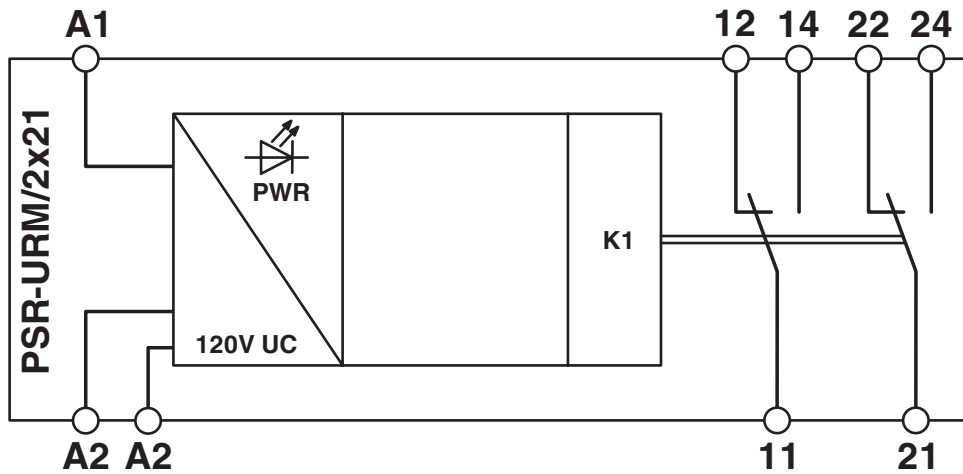
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Drawings

Block diagram



Block diagram

Approvals

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


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

EF3.1 Climate Change

CO2e kg	3,585 kg CO2e
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