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

ELEKTROGERÄTE RÜCKNAHME

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

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 Us / when controlled via A1)
Typical release time	10 ms (with Us / 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 A², $R_{contact}$ = 0.1 Ω)
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

	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

Conductor connection

Connection method	Screw connection
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
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 (EN 60204-1)	0

Safety data: EN ISO 13849

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

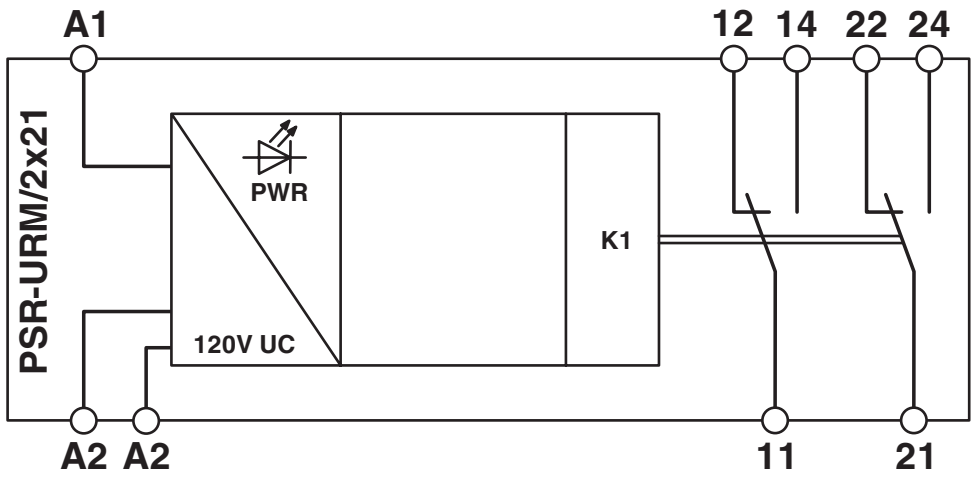
Identification	CE-compliant

Mounting

Mounting type	DIN rail mounting
Mounting position	vertical or horizontal

Drawings

Block diagram



Block diagram

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: 3535 2399

cUL Listed
Approval ID: E140324

UL Listed
Approval ID: E140324

Functional Safety
Approval ID: 4478015124312

Functional Safety
Approval ID: 4478015124312

Classifications

ECLASS

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

ETIM

ETIM 10.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

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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