

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



2981363

<https://www.phoenixcontact.com/gb/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	10 pc
Sales key	DNA162
Product key	DNA162
Catalog page	Page 247 (C-6-2019)
GTIN	4017918946906
Weight per piece (including packing)	61.49 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
Mechanical service life	10x 10 ⁶ cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Times

Restart time	< 1 s (Boot time)
Recovery time	< 500 ms

Electrical properties

Maximum power dissipation for nominal condition	5.87 W (at $U_B = 26.4$ V DC, $U_S = 24$ V, $I_S = 30$ mA, $n = 1$, $I_L^2 = 50$ A ² , $R_{\text{contact}} = 0.1 \Omega$ )
Nominal operating mode	100% operating factor

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V
	250 V
Rated surge voltage/insulation	4 kV/basic insulation (safe isolation, reinforced insulation, and 6 kV between logic and signaling current paths).

Input data

General

Rated control circuit supply voltage U_S	24 V AC/DC -15 % / +10 %
Power consumption at U_S	typ. 0.72 W
Rated control supply current I_S	typ. 30 mA
Input voltage range	20.4 V AC/DC ... 26.4 V AC/DC
Typ. starting time with U_S	typ. 10 ms
Typical release time	typ. 10 ms
Recovery time	< 500 ms
Maximum switching frequency	0.5 Hz
Operating voltage display	1 x yellow LED

Output data

Contact switching type	2 changeover contacts
Contact material	AgNi
Maximum switching voltage	230 V AC/DC (Observe the load curve)
Minimum switching voltage	5 V AC/DC
Limiting continuous current	5 A (N/O contact)

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	3.5 A (N/C contact)
Maximum inrush current	6 A
Inrush current, minimum	10 mA
Sq. Total current	50 A ²
Interrupting rating (ohmic load) max.	144 W (N/O contact, 24 V DC, $\tau = 0$ ms)
	288 W (N/O contact, 48 V DC, $\tau = 0$ ms)
	88 W (N/O contact, 110 V DC, $\tau = 0$ ms)
	110 W (N/O contact, 220 V DC, $\tau = 0$ ms)
	1500 VA (N/O contact, 230 V AC, $\tau = 0$ ms)
Switching capacity	min. 50 mW
Switching capacity in accordance with IEC 60947-5-1	3 A (24 V (DC13))
	3 A (230 V (AC15))
Output fuse	6 A gL/gG (N/O contact)
	4 A gL/gG (N/O contact, for low-demand applications)
	4 A gL/gG (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	Polycarbonate

Characteristics

Safety data

Stop category	0
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Safety data: EN ISO 13849

Category	1
Performance level (PL)	c

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, 2g

Approvals

CE

Certificate	CE-compliant
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Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	DIN EN 60947-1
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Mounting

Mounting type	DIN rail mounting
Mounting position	vertical or horizontal

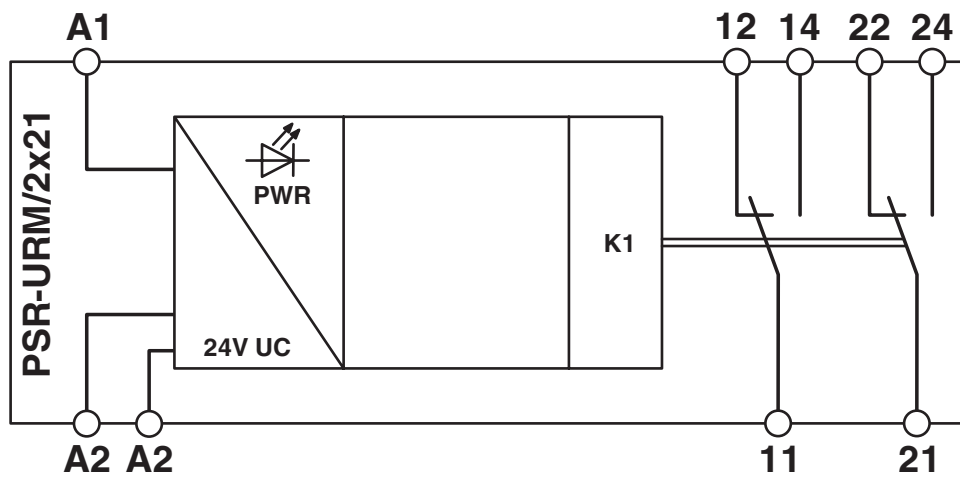
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Drawings

Block diagram



Block diagram

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Approvals

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

**EAC**
Approval ID: TR_TS_D_00573_c

**UL Listed**
Approval ID: FILE E 140324

**cUL Listed**
Approval ID: FILE E 140324

**Functional Safety**
Approval ID: 44-780-15124312

**Functional Safety**
Approval ID: 44-205-15124312

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 9.0	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

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Accessories

CRIMPFOX 6 - Crimping pliers

1212034

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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 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

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