Coupling relay - PSR-SCF- 24UC/URM/2X21 - 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), SILCL 1 (EN 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
- One or two-channel activation
- 2 changeover contacts (EN 50205 type B)

Key Commercial Data

Packing unit	1 pc
GTIN	4 017918 946906
GTIN	4017918946906
Weight per Piece (excluding packing)	61.640 g
Custom tariff number	85364900
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

Width	17.5 mm

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Technical data

Dimensions

Height	75 mm
Depth	60.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 50 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Maximum altitude	≤ 2000 m (Above sea level)

Input data

Rated control circuit supply voltage U_S	24 V AC/DC -15 % / +10 %
Rated control supply current I_S	typ. 30 mA
Power consumption at U_S	typ. 0.72 W
Inrush current	typ. 350 mA DC (Δt < 1 µs at U_s)
	typ. 350 mA AC (Δt = 2 ms at U_s)
Typ. starting time with U_s	typ. 10 ms
Typical release time	typ. 10 ms
Recovery time	< 500 ms
Operating voltage display	1 x yellow LED
Maximum switching frequency	0.5 Hz
Filter time	max. 1.5 ms (at S12; test pulse width)
	7.5 ms (at S12; test pulse rate)
	Test pulse rate = 5 x Test pulse width

Output data

Contact type	2 PDT
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)
	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, τ = 0 ms)
	288 W (N/O contact, 48 V DC, τ = 0 ms)
	88 W (N/O contact, 110 V DC, τ = 0 ms)

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Technical data

Output data

	110 W (N/O contact, 220 V DC, τ = 0 ms)
	1500 VA (N/O contact, 230 V AC, τ = 0 ms)
Switching capacity	min. 50 mW
Mechanical service life	10x 10^6 cycles
Switching capacity according to IEC 60947-5-1	3 A (24 V (DC13))
	3 A (250 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)

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Nominal operating mode	100% operating factor
Net weight	61.82 g
Mounting position	vertical or horizontal
Mounting type	DIN rail mounting
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Housing material	PBT
Housing color	green

Connection data

Connection method	Screw connection
pluggable	no
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Safety-related characteristic data

Stop category	0
Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	1
Designation	IEC 61508 - Low demand

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Safety-related characteristic data

Safety Integrity Level (SIL)	1
Designation	EN ISO 13849
Performance level (PL)	c
Category	1
Safety Integrity Level Claim Limit (SIL CL)	1

Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
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).
Degree of pollution	2
Overvoltage category	III
Shock	N/O contact: 10g, N/C contact: 5g (In the event of stress caused by shock, contact reactions are possible for up to 1 ms.)
Vibration (operation)	10 Hz ... 150 Hz, 2g (In the event of stress caused by vibration, contact reactions are possible for up to 1 ms.)
Conformance	CE-compliant

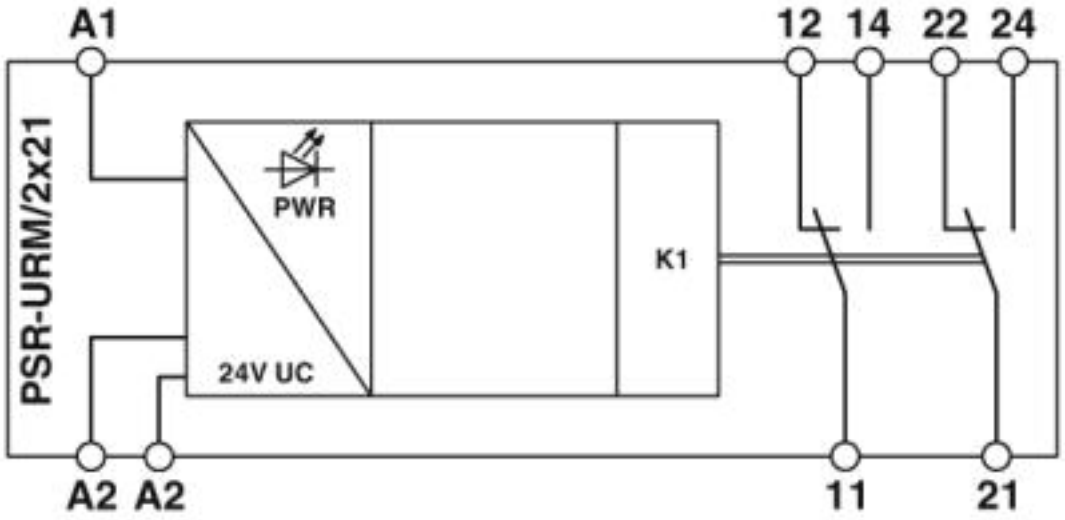
Environmental Product Compliance

	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

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Block diagram



Classifications

eCl@ss

eCl@ss 4.0	27371100
eCl@ss 4.1	27371100
eCl@ss 5.0	27371600
eCl@ss 5.1	27371600
eCl@ss 6.0	27371600
eCl@ss 7.0	27371601
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

ETIM

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001437
ETIM 6.0	EC001437
ETIM 7.0	EC001437

UNSPSC

UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501
UNSPSC 11	39121501
UNSPSC 12.01	39121501

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Classifications

UNSPSC

UNSPSC 13.2	39121501
UNSPSC 18.0	39122334
UNSPSC 19.0	39122334
UNSPSC 20.0	39122334
UNSPSC 21.0	39122334

Approvals

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Functional Safety / UL Listed / cUL Listed / EAC / EAC / cULus Listed

Ex Approvals

Approval details

Functional Safety			968/EL 649.01/15
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
EAC			EAC-Zulassung
EAC			RU C-DE.A*30.B.01082

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Approvals

cULus Listed	

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