

Coupling relay - PSR-SPF- 24UC/URM/4X1/2X2 - 2981457

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Safe coupling relay with force-guided contacts, 4 N/O contacts, 2 N/C contacts, fixed spring-cage terminal block, width: 40 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
- 4 enabling current paths, 2 confirmation current paths



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 987794
GTIN	4017918987794

Technical data

Note

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

Width	40 mm
Height	114.5 mm
Depth	50.1 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °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)

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Ambient conditions

Maximum altitude	≤ 2000 m (Above sea level)
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Input data

Rated control circuit supply voltage U_s	24 V AC/DC -20 % / +10 %
Rated control supply current I_s	typ. 52 mA
Power consumption at U_s	typ. 1.25 W
Typ. starting time with U_s	typ. 10 ms (when controlled via A1)
Typical release time	typ. 10 ms (when controlled via A1)
Recovery time	< 500 ms
Operating voltage display	1 x green LED
Maximum switching frequency	0.5 Hz

Output data

Contact type	4 enabling current paths 2 confirmation current paths
Contact material	AgSnO ₂
Maximum switching voltage	230 V AC/DC (Observe the load curve)
Minimum switching voltage	5 V AC/DC
Limiting continuous current	6 A
Maximum inrush current	6 A
Inrush current, minimum	10 mA
Sq. Total current	72 A ²
Interrupting rating (ohmic load) max.	For additional values, see load curve
Maximum interrupting rating (inductive load)	48 W (N/O contact, 24 V DC, $\tau = 40$ ms)
	40 W (N/O contact, 48 V DC, $\tau = 40$ ms)
	36 W (N/O contact, 60 V DC, $\tau = 40$ ms)
	35 W (N/O contact, 110 V DC, $\tau = 40$ ms)
	33 W (N/O contact, 220 V DC, $\tau = 40$ ms)
Switching capacity	min. 50 mW
Mechanical service life	10x 10 ⁶ cycles
Switching capacity according to IEC 60947-5-1	5 A (24 V (DC13)) 5 A (250 V (AC15))
Output fuse	10 A gL/gG (N/O contact) 4 A gL/gG (N/O contact, for low-demand applications) 6 A gL/gG (N/C contact)

General

Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3
Nominal operating mode	100% operating factor
Net weight	117 g
Mounting position	vertical or horizontal

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General

Mounting type	DIN rail mounting
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Housing color	green

Connection data

Connection method	Spring-cage connection
pluggable	no
Conductor cross section solid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross-section AWG	24 ... 16
Conductor cross-section flexible with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ² (only together with CRIMPFOX 6)
Conductor cross-section flexible with ferrule and plastic sleeve	0.25 mm ² ... 1.5 mm ² (only together with CRIMPFOX 6)
Stripping length	8 mm

Safety-related characteristic data

Stop category	0
Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	1
Designation	IEC 61508 - Low demand
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	Safe isolation, reinforced insulation 6 kV between input circuit (A1/A2) and all output current paths
	Basic insulation 4 kV between all output current paths
Degree of pollution	2
Overvoltage category	III
Shock	15g (In the event of stress caused by shock, contact reactions are possible for up to 2 ms.)
Vibration (operation)	10 Hz ... 150 Hz, 2g (In the event of stress caused by vibration, contact reactions are possible for up to 2 ms.)
Conformance	CE-compliant

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
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Technical data

Environmental Product Compliance

	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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Classifications

eCl@ss

eCl@ss 10.0.1	27371601
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
UNSPSC 13.2	39121501
UNSPSC 18.0	39122334
UNSPSC 19.0	39122334
UNSPSC 20.0	39122334
UNSPSC 21.0	39122334

Approvals

Approvals

Approvals

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

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Approvals

Ex Approvals

Approval details

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
Functional Safety			44-780-15124312
cULus Listed			

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