

2981444

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

Commercial data

Item number	2981444
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNA162
Product key	DNA162
Catalog page	Page 247 (C-6-2019)
GTIN	4017918987787
Weight per piece (including packing)	132.8 g
Weight per piece (excluding packing)	132 g
Customs tariff number	85364900
Country of origin	DE

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Technical data

Notes

Note on application	
Note on application	Only for industrial use
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	
Restart time	< 1 s (Boot time)
Electrical properties	
Maximum power dissipation for nominal condition	8.71 W (at U _B = 26.4 V DC, U _S = 24 V, I _S = 52 mA, n = 1, I _L ² = 72 A², R _{contact} = 0.1 ΩI
Nominal operating mode	100% operating factor
Rated insulation voltage	250 V

Input data	

Rated surge voltage/insulation

General	
Rated control circuit supply voltage U_S	24 V AC/DC -20 % / +10 %
Power consumption at U _S	typ. 1.25 W
Rated control supply current ${\rm I}_{\rm S}$	typ. 52 mA
Input voltage range	19.2 V AC/DC 26.4 V AC/DC
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
Maximum switching frequency	0.5 Hz
Operating voltage display	1 x LED (green)

Safe isolation, reinforced insulation 6 kV between input circuit

Basic insulation 4 kV between all output current paths

(A1/A2) and all output current paths



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Output data

Contact switching 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
imiting continuous current	6 A (N/O contact)
	6 A (N/C contact)
Maximum inrush current	6 A
Inrush current, minimum	10 mA
Sq. Total current	72 A ²
Interrupting rating (ohmic load) max.	144 W (N/O contact, 24 V DC, т = 0 ms)
	288 W (N/O contact, 48 V DC, т = 0 ms)
	77 W (N/O contact, 110 V DC, τ = 0 ms)
	88 W (N/O contact, 220 V DC, τ = 0 ms)
Maximum interrupting rating (inductive load)	48 W (N/O contact, 24 V DC, τ = 40 ms)
	40 W (N/O contact, 48 V DC, τ = 40 ms)
	36 W (N/O contact, 60 V DC, τ = 40 ms)
	35 W (N/O contact, 110 V DC, т = 40 ms)
	33 W (N/O contact, 220 V DC, т = 40 ms)
Switching capacity	min. 50 mW
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)

Connection data

Connection technology		
pluggable	no	
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	М3	
Tightening torque	0.6 Nm	

Dimensions

Width	40 mm
Height	111 mm
Depth	55 mm



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Material specifications

•	
Color (Housing)	green (RAL 6021)
Housing material	PBT
Characteristics	
Safety data	
Stop category	0
Safety data: EN ISO 13849	
Category	1
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

mbient conditions	
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-20 °C 55 °C
Ambient temperature (storage/transport)	-40 °C 85 °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	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.)

Approvals

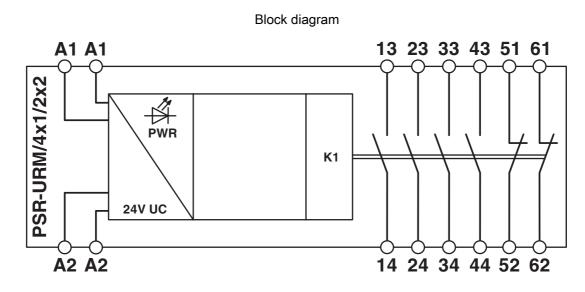
CE		
	Certificate	CE-compliant
Mounting		
	Mounting type	DIN rail mounting
	Mounting position	vertical or horizontal



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Drawings



Block diagram



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Approvals

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Classifications

ECLASS

	ECLASS-13.0	27371601
E	ΓIM	
	ETIM 9.0	EC001437
U	NSPSC	
	UNSPSC 21.0	39122300



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-l
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	d0a72710-ff17-48a1-b7e4-f7e242e59526

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