

REL-SR- 24DC/2X21/FG - Safety relays



2908777

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Safety relay with force-guided contacts in accordance with DIN EN 61810-3, contact switching type: 2 changeover contacts. The requirements for type A in accordance with DIN EN 61810-3 are satisfied if the circuit is designed as 1 N/O contact / 1 N/C contact.

Commercial data

Item number	2908777
Packing unit	20 pc
Minimum order quantity	20 pc
Sales key	C460
Product key	CK69D5
Catalog page	Page 339 (C-5-2019)
GTIN	4055626338651
Weight per piece (including packing)	19.45 g
Weight per piece (excluding packing)	19.45 g
Customs tariff number	85364900
Country of origin	CZ

Technical data

Product properties

Product type	Single relay
Application	Forcibly guided contacts
Operating mode	100% operating factor
Mechanical service life	approx. 10 ⁷ cycles
B _{10d}	600000 Cycles (AC1; 250 V / 6 A; 1 NO)
	900000 Cycles (AC1; 250 V / 3 A; 1 NO)
	1800000 Cycles (AC1; 250 V / 1,5 A; 1 NO)
	180000 Cycles (AC15; 250 V / 3 A; 1 NO)
	560000 Cycles (AC15; 250 V / 2 A; 1 NO)
	4600000 Cycles (AC15; 250 V / 0,75 A; 1 NO)
	360000 Cycles (DC13; 24 V / 3 A; 1 NO)
	740000 Cycles (DC13; 24 V / 1,5 A; 1 NO)
	4200000 Cycles (DC13; 24 V / 0,75 A; 1 NO)

Data management status

Date of last data management	14.08.2024
Article revision	02

Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	2

Electrical properties

Maximum power dissipation for nominal condition	0.7 W
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Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

Input data

Coil side

Nominal input voltage U _N	24 V DC
Input voltage range in reference to U _N	see diagram
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U _N	29 mA
Typical response time	10 ms
Typical release time	4 ms

Output data

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Switching

Contact switching type	2 changeover contacts, forcibly actuated
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	15 V
Limiting continuous current	6 A
Maximum inrush current	6 A
Min. switching current	10 mA (5 V)
Interrupting rating (ohmic load) max.	144 W (24 V DC)
	288 W (48 V DC)
	88 W (110 V DC)
	110 W (220 V DC)
	1500 VA (250 V AC)
Switching capacity min.	0.24 W
Switching capacity	2 A (24 V (DC13))
	3 A (230 V (AC15))
Motor load according to UL 508	10 LRA / 0,5 FLA

Connection data

Connection method	Plug / solder connection
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Dimensions

Width	12.6 mm
Height	29 mm
Depth	25.5 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

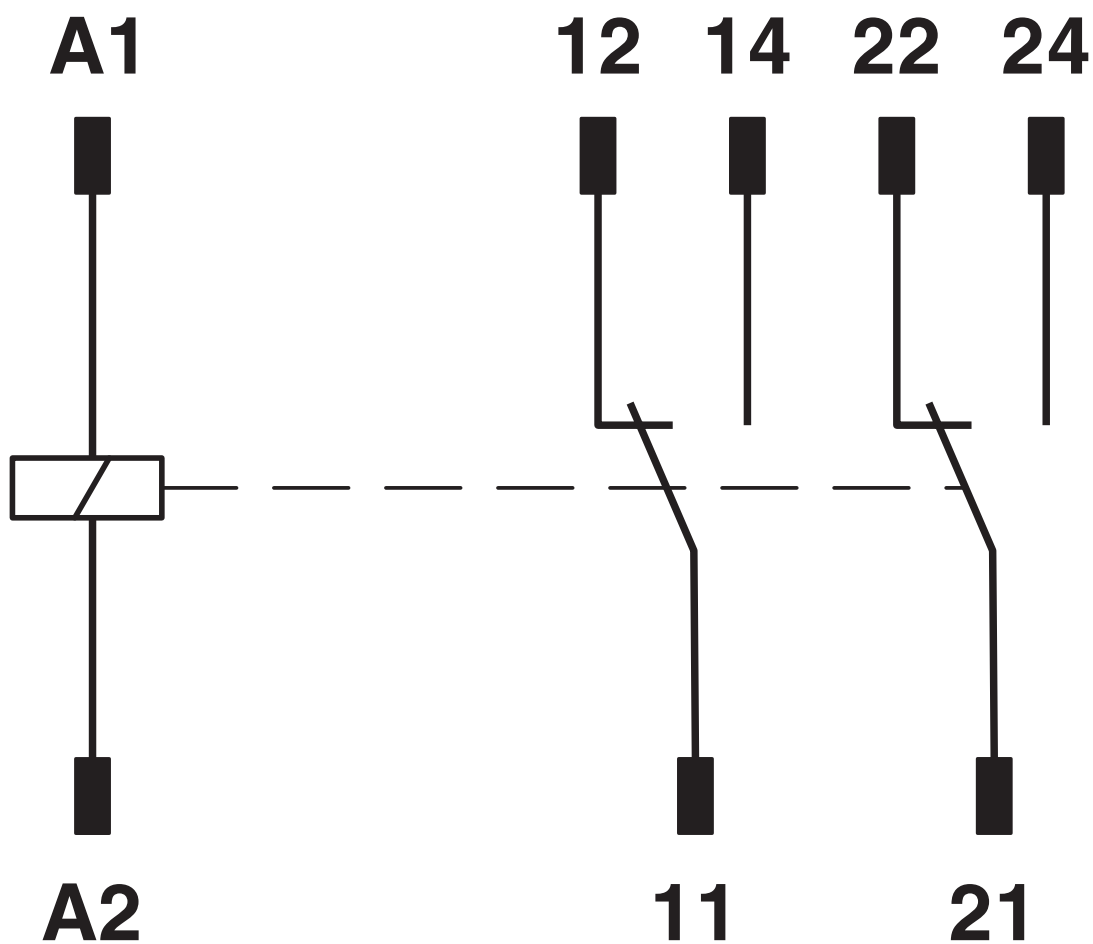
Standards and regulations

Air clearances and creepage distances between the power circuits

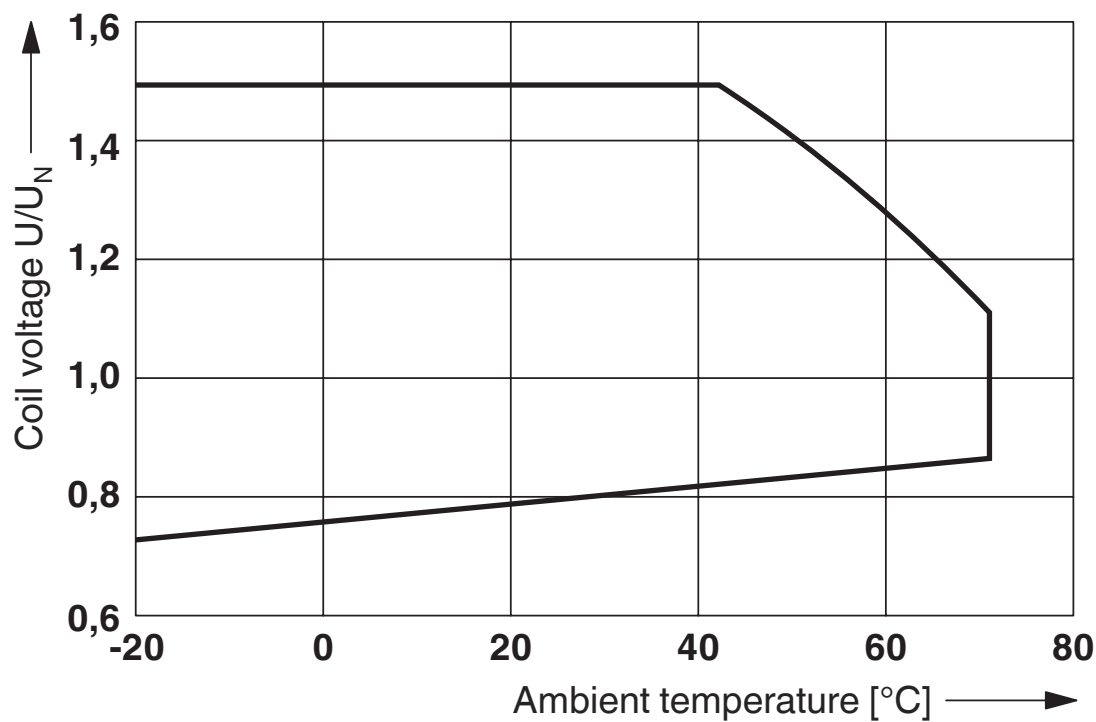
Standards/regulations	DIN EN 50178
	DIN EN 61810-3
	IEC 60664-1

Drawings

Circuit diagram

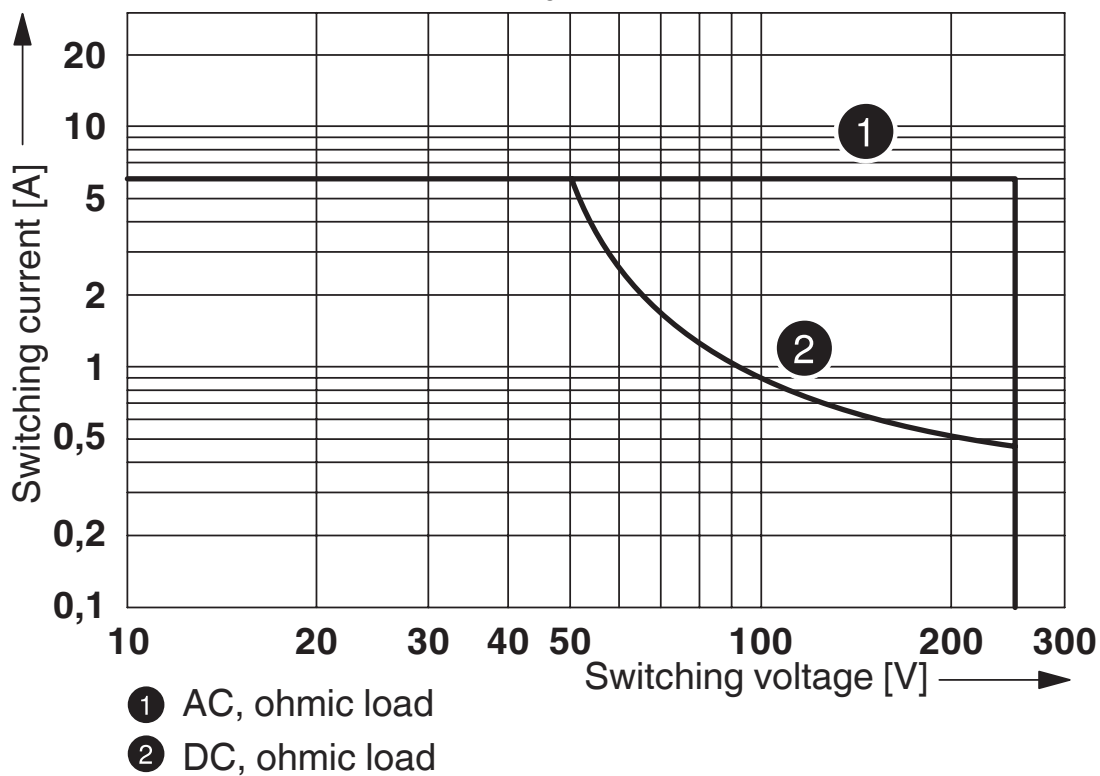


Diagram



Operating voltage range

Diagram



Interrupting rating



Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ must be prevented

Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^{\circ}\text{C}$.

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2908777>



cUL Recognized
Approval ID: FILE E 228652



UL Recognized
Approval ID: FILE E 228652



EAC
Approval ID: TR_TS_D_00573_c



EAC
Approval ID: RU*C-DE.*08.B.00010

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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, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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