

# REL-MR- 24DC/1IC - Single relay



2961341

<https://www.phoenixcontact.com/au/products/2961341>

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Pluggable miniature power relay, with power contact for high switch-on currents up to 130 A peaks, 1 N/O contact, input voltage: 24 V DC

## Your advantages

- Safe isolation between coil and contact side
- High degree of protection up to RT III depending on type (wash-proof)
- Power contacts up to 16 A

## Commercial data

Item number	2961341
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	DK6931
Product key	DK6931
Catalog page	Page 395 (C-5-2019)
GTIN	4017918187569
Weight per piece (including packing)	16.1 g
Weight per piece (excluding packing)	12.815 g
Customs tariff number	85364190
Country of origin	AT

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## Technical data

### Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	3x 10 <sup>7</sup> cycles

### Insulation characteristics

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	3

### Data management status

Date of last data management	19.03.2025
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### Electrical properties

Maximum power dissipation for nominal condition	0.41 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

### Input data

#### Coil side

Nominal input voltage U <sub>N</sub>	24 V DC
Input voltage range	19.2 V DC ... 54 V DC
Input voltage range in reference to U <sub>N</sub>	see diagram
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U <sub>N</sub>	17 mA
Typical response time	8 ms
Typical release time	3 ms
Coil resistance	1440 Ω ±10 % (20 °C)

### Output data

#### Switching

Contact switching type	1 N/O contact
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (100 mA)
Limiting continuous current	16 A
Maximum inrush current	80 A (20 ms) 130 A (peak, at capacitive load, 230 V AC, 24 µF)

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Min. switching current	100 mA (at 12 V DC)
Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	4000 VA (for 250 V AC)
Switching capacity min.	1200 mW
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	6 A (at 24 V, AC15)
	6 A (at 120 V, AC15)
	6 A (at 250 V, AC15)
Motor load according to UL 508	1/2 HP, 120 V AC (N/O contact)
	1 HP, 250 V AC (N/O contact)

## Connection data

Connection method	Plug / solder connection
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## Dimensions

Dimensional drawing	
Width	12.7 mm
Height	29 mm
Depth	15.7 mm

## Material specifications

Color	white (RAL 9010)
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	RT II
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m

## Approvals

### Corrosive gas test

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

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## Standards and regulations

Standards/regulations	EN 50178
	EN 61810-1

## Mounting

Mounting type	Plug-in mounting
Assembly note	Can be aligned without spacing ( $> 70\text{ °C} \geq 2.5\text{ mm}$ )
Mounting position	any

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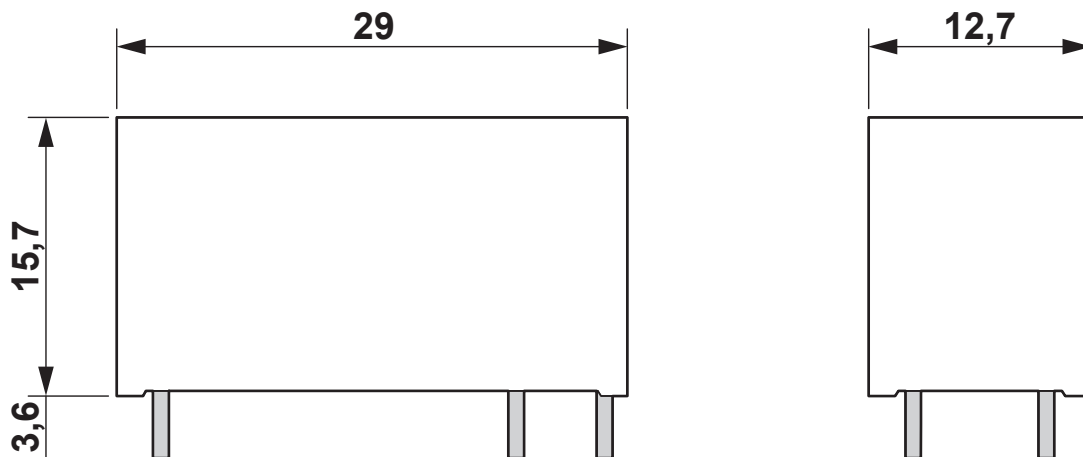
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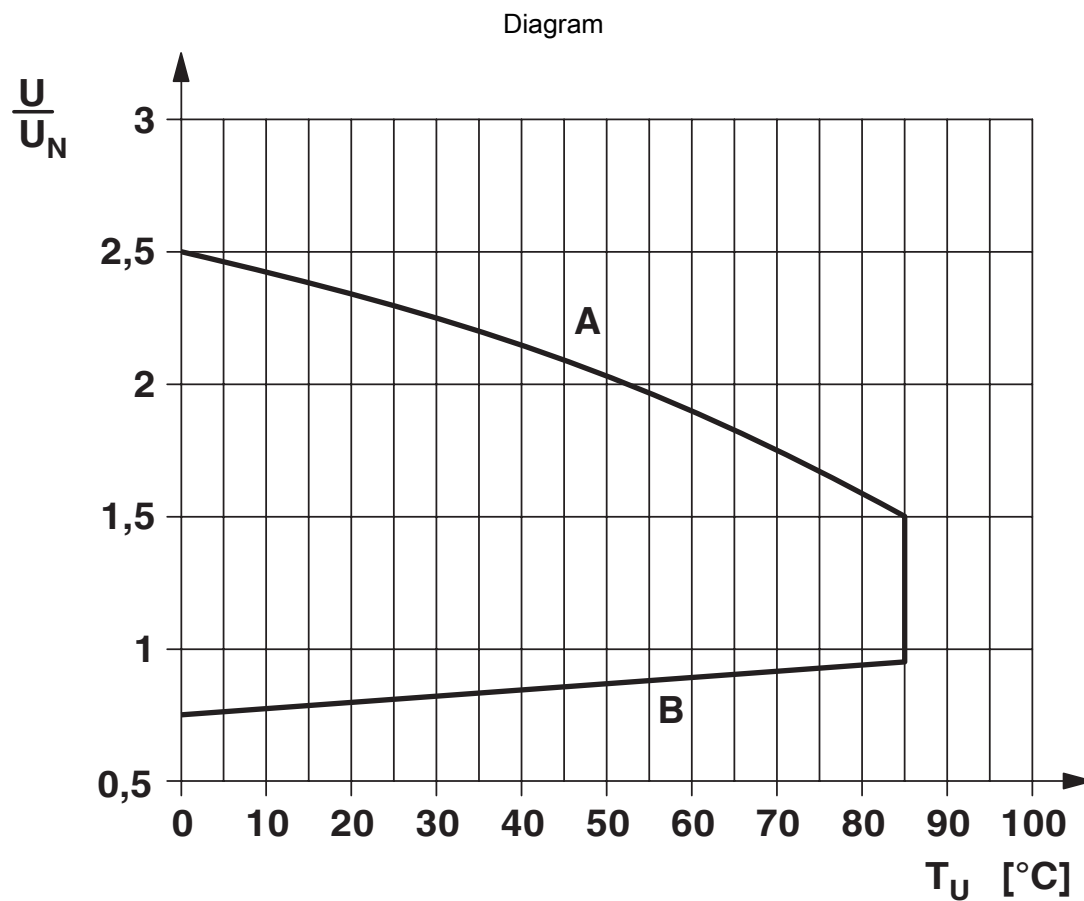
<https://www.phoenixcontact.com/au/products/2961341>



## Drawings

Dimensional drawing



**Curve A**

Maximum permissible continuous voltage  $U_{\max}$  with limiting continuous current on the contact side (see relevant technical data)

**Curve B**

Minimum permissible operate voltage  $U_{\text{op}}$  after pre-excitation (see relevant technical data)

Diagram



Permissible humidity for operation and storage.

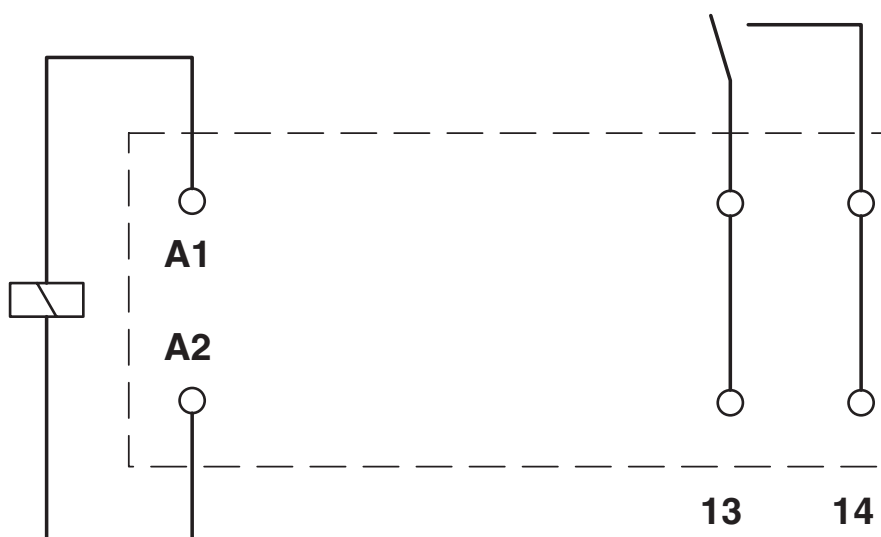
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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  $\leq 25^{\circ}\text{C}$ .

Circuit diagram



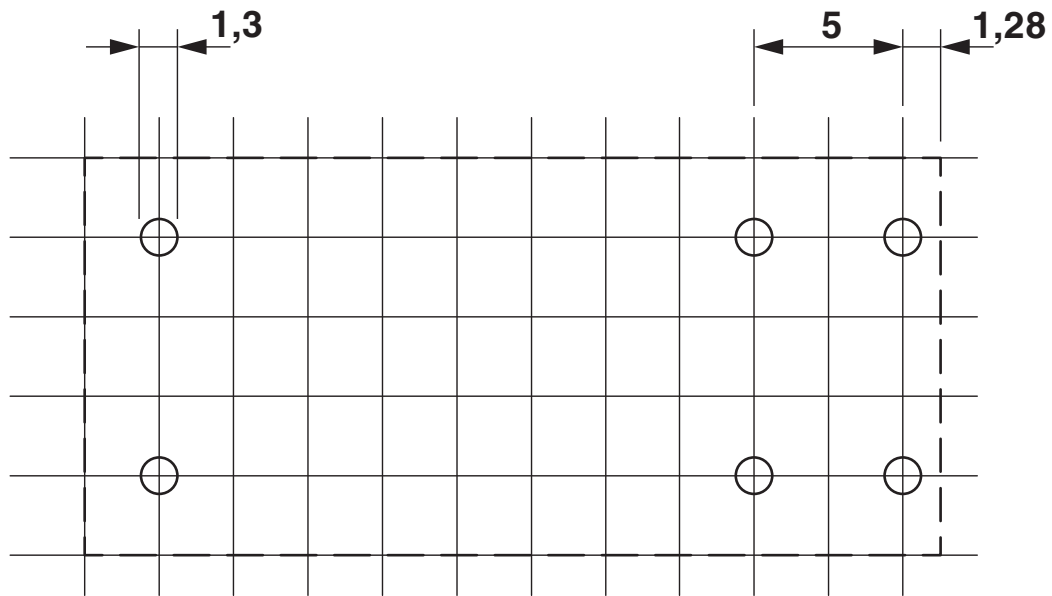
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Drilling plan/solder pad geometry



a = pitch division 2.5 mm



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/2961341>



**cUL Recognized**

Approval ID: FILE E 228652



**UL Recognized**

Approval ID: FILE E 228652



**EAC**

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



**VDE Zeichengenehmigung**

Approval ID: 40048281



**cULus Recognized**

Approval ID: E172140

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## Classifications

### ECLASS

ECLASS-13.0	27371601
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### 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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