

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



2961341

<https://www.phoenixcontact.com/us/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 according to DIN EN 50178 between coil and contact
- 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	1 pc
Minimum order quantity	10 pc
Sales Key	C460
Product Key	CK6195
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	85364900
Country of origin	AT

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## Technical Data

### Product properties

Product type	Single relay
Set comprises	2967604 PLC-RSC- 24DC/ 1IC/ACT
	2912413 PLC-RSP- 24DC/ 1IC/ACT
	2900298 PLC-RPT- 24DC/ 1IC/ACT
Operating mode	100% operating factor
Mechanical service life	3x 10 <sup>7</sup> cycles

### Insulation characteristics

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

### 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 $U_N$	24 V DC
Input voltage range	19.2 V DC ... 54 V DC
Input voltage range in reference to $U_N$	see diagram
Typical input current at $U_N$	17 mA
Typical response time	8 ms
Typical release time	3 ms
Coil resistance	1440 $\Omega$ $\pm$ 10 % (20 °C)

### Output data

#### Switching

Contact type	1 N/O contact
Type of switch contact	Single contact
Drive and function	monostable
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (100 mA)
Limiting continuous current	16 A

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Maximum inrush current	80 A (20 ms)
	130 A (peak, at capacitive load, 230 V AC, 24 µF)
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

## 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

## Approval data

### 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 instructions	Can be aligned without spacing ( $> 70\text{ °C} \geq 2.5\text{ mm}$ )
Mounting position	any

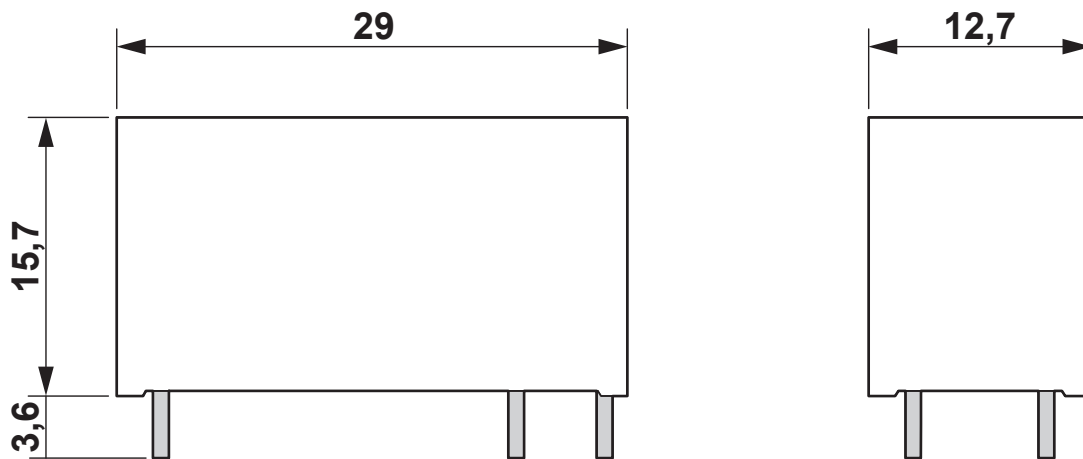
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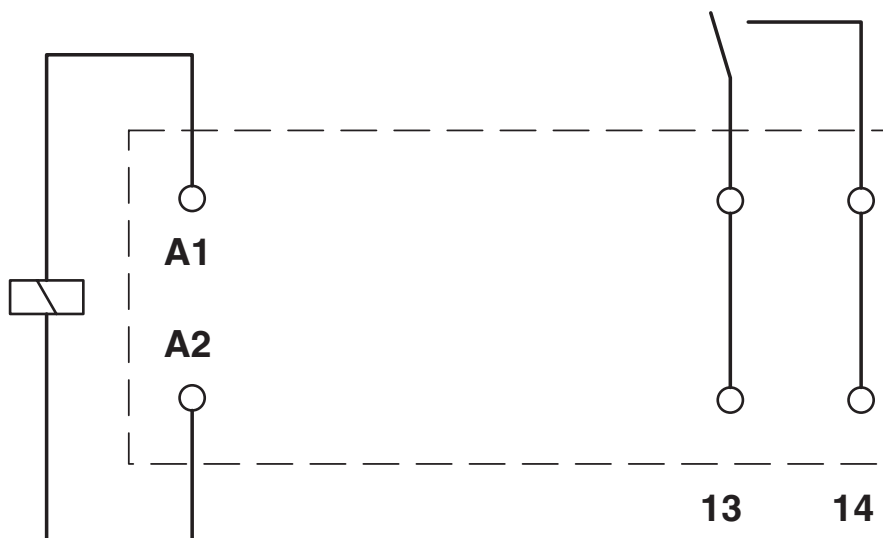
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## Drawings

Dimensional drawing



Circuit diagram



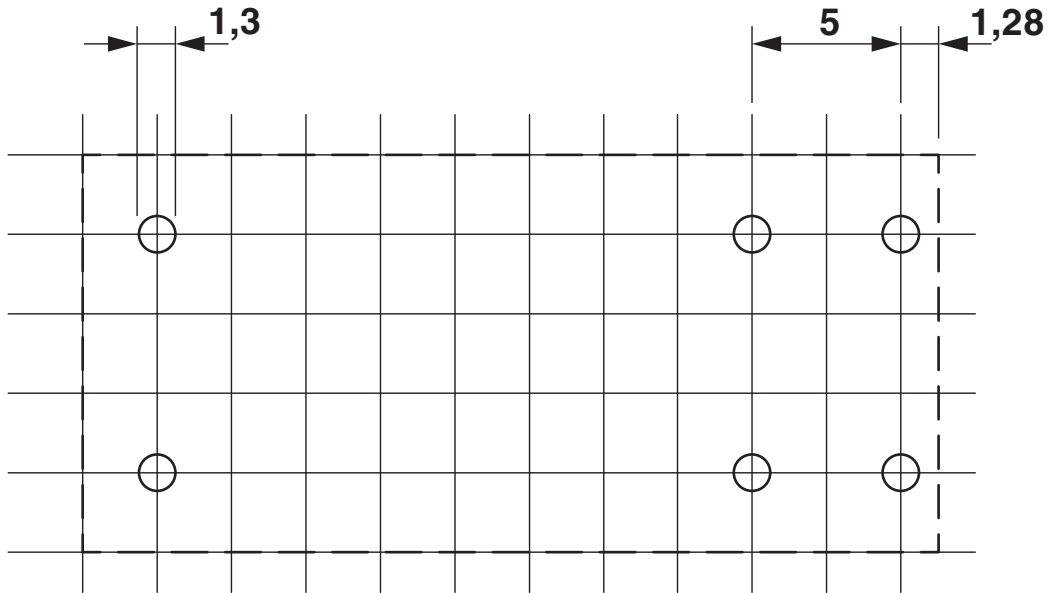
# REL-MR- 24DC/1IC - Single relay



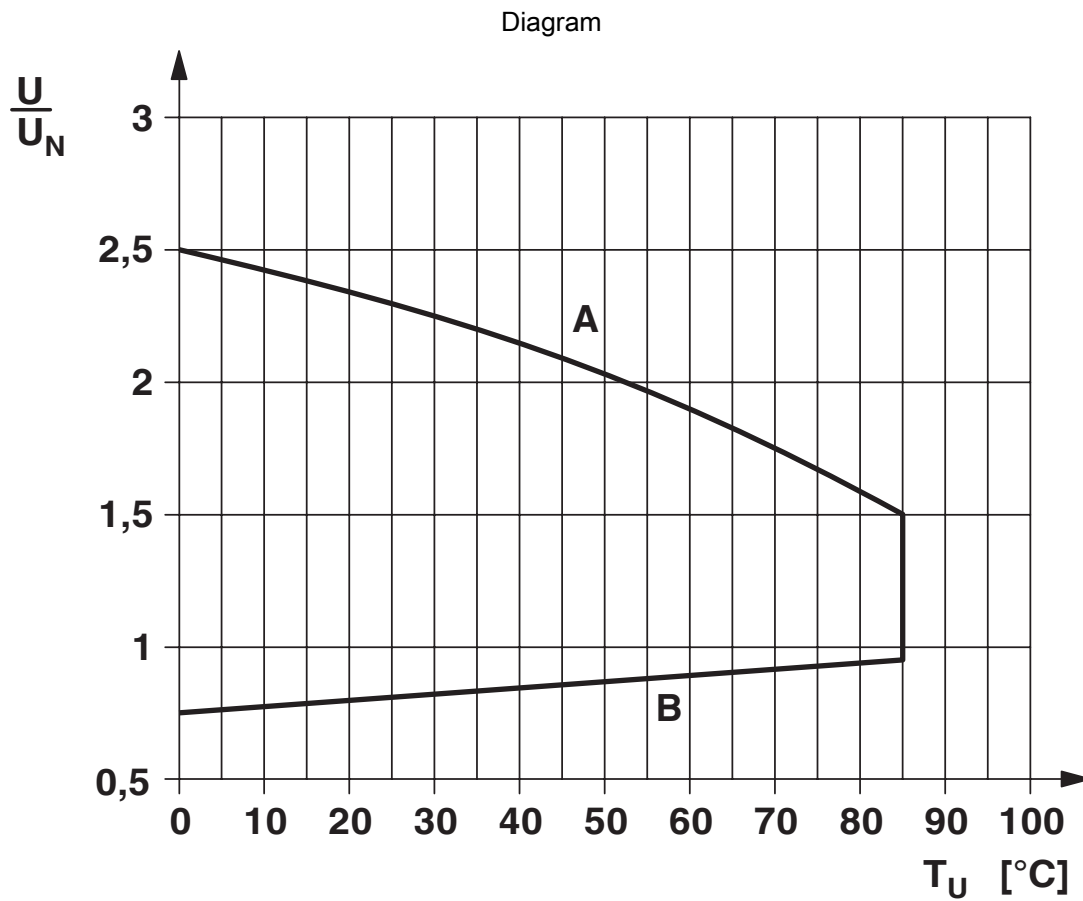
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Drilling plan/solder pad geometry



a = pitch division 2.5 mm



### 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  $U_{op}$  after pre-excitation (see relevant technical data)


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## Approvals


 **cUL Recognized**  
Approval ID: FILE E 228652

 **UL Recognized**  
Approval ID: FILE E 228652


 **EAC**  
Approval ID: TR\_TS\_D\_00573\_c

 **UL Recognized**  
Approval ID: FILE E 172140

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


 **VDE Zeichengenehmigung**  
Approval ID: 40007758

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
Reports with production monitoring			-	-

 **VDE Zeichengenehmigung**  
Approval ID: 40048281

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
Reports with production monitoring			-	-

 **PRS**  
Approval ID: TE/2109/880590/16

 **cUL Recognized**  
Approval ID: FILE E 172140



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