

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



### Key Commercial Data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	 4 017918 187569
GTIN	4017918187569
Weight per Piece (excluding packing)	12.815 g
Weight per piece (including packing)	16.100 g
Custom tariff number	85366990
Country of origin	Austria
Sales Key	08

### Technical data

#### Dimensions

Width	12.7 mm
Height	29 mm
Depth	15.7 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Maximum altitude	≤ 2000 m

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## Technical data

### Ambient conditions

Degree of protection	RT II (flux-proof)
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### Coil side

Nominal input voltage $U_N$	24 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)
Power dissipation for nominal condition	0.41 W

### Contact side

Contact 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)
Min. switching current	100 mA (at 12 V DC)
Maximum inrush current	80 A (20 ms)
	130 A (peak, at capacitive load, 230 V AC, 24 $\mu$ F)
Limiting continuous current	16 A
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)

### General

Test voltage relay winding/relay contact	5 kV AC (50 Hz, 1 min.)
Operating mode	100% operating factor
Mechanical service life	3x 10 <sup>7</sup> cycles
Mounting position	any

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## Technical data

### General

Assembly instructions	Can be aligned without spacing ( $> 70\text{ °C} \geq 2.5\text{ mm}$ )
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### Connection data

Connection method	Solder connection
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### Standards and Regulations

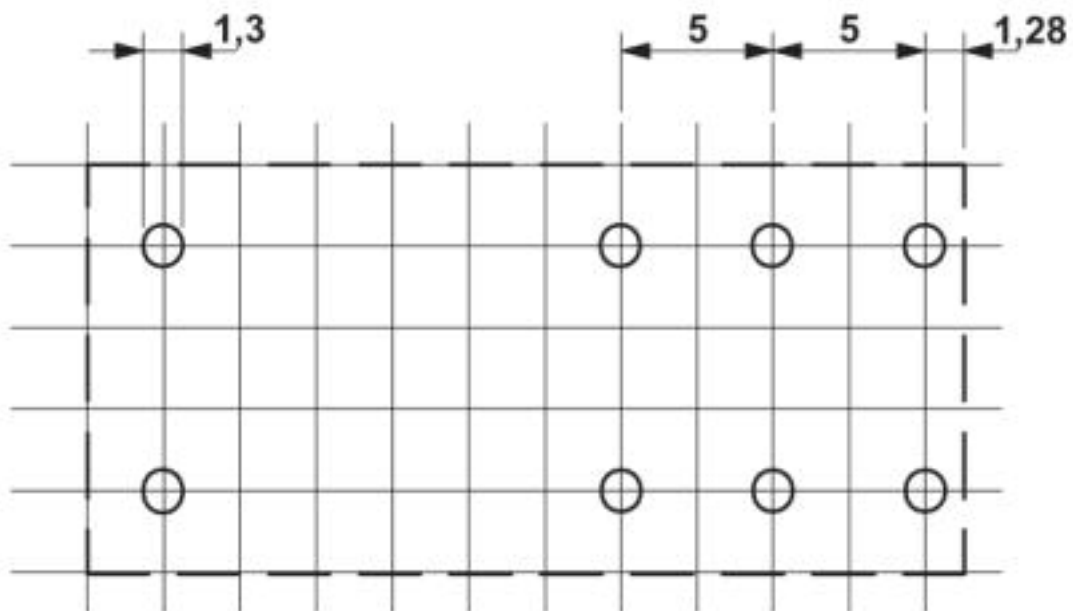
Connection in acc. with standard	CUL
Standards/regulations	EN 50178
	EN 61810-1
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV
Insulation	Safe isolation, reinforced insulation
Pollution degree	3
Overvoltage category	III

### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

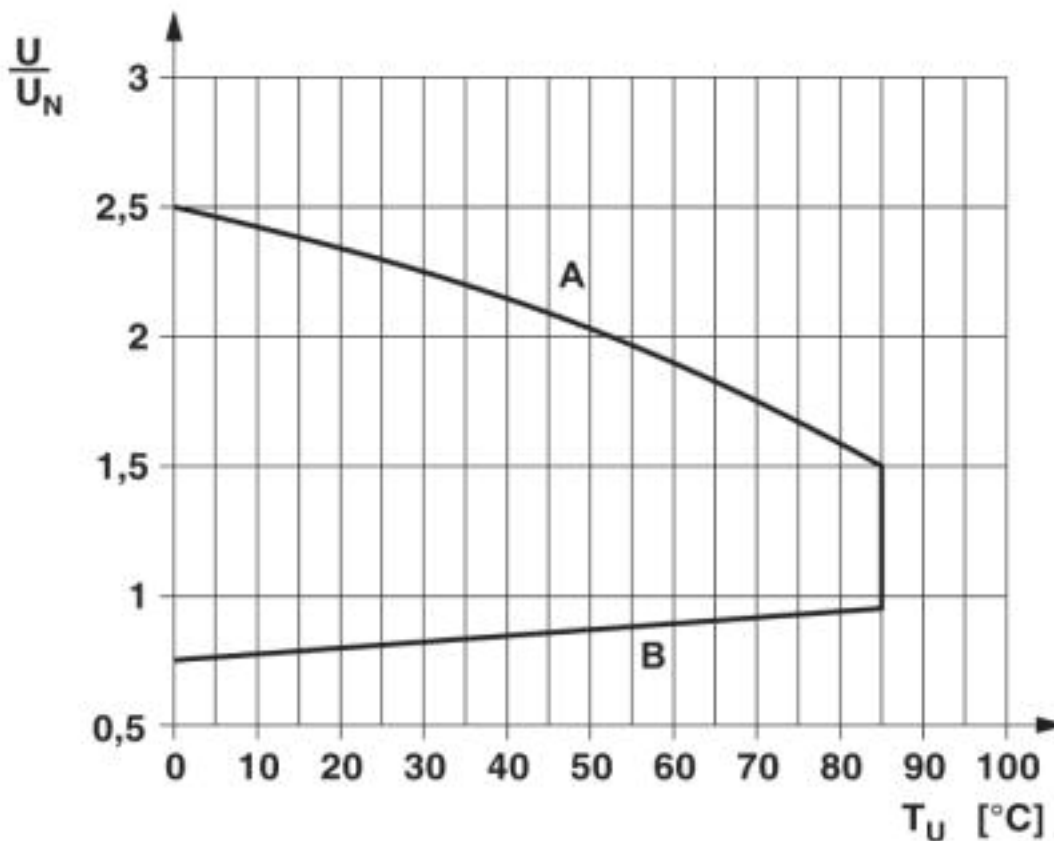
Drilling diagram



a = pitch division 2.5 mm

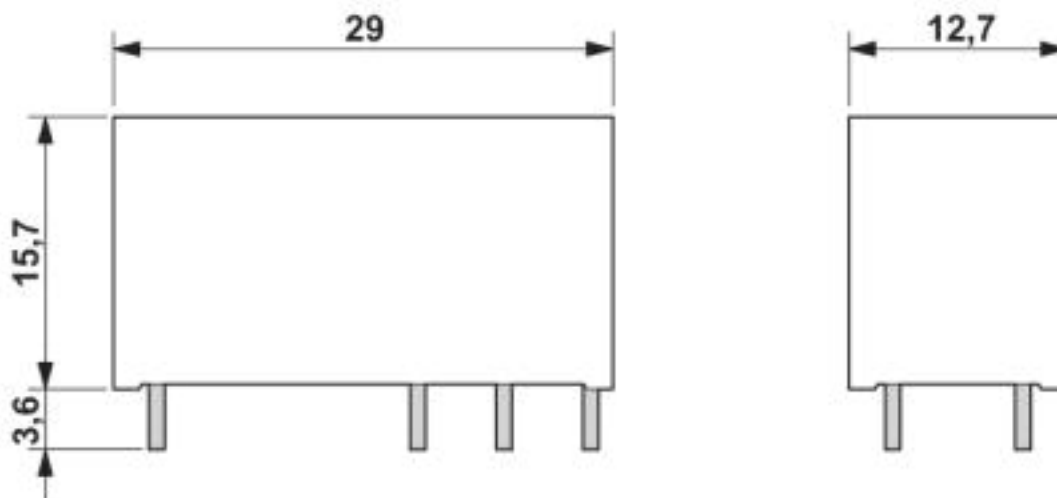
# Single relay - REL-MR- 24DC/1IC - 2961341

Diagram



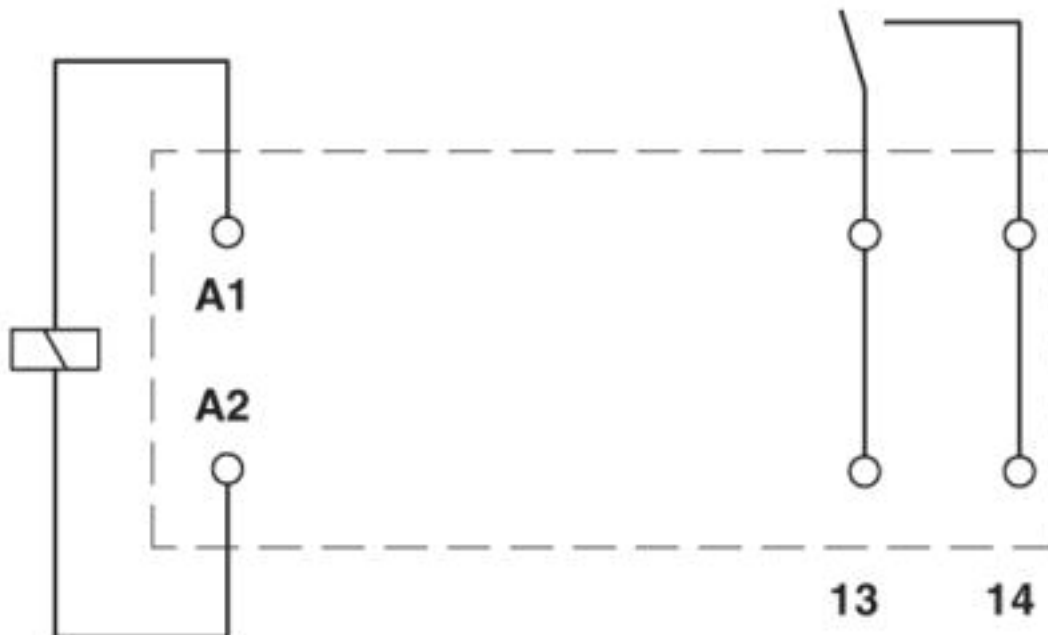
Curve A  
Maximum permissible continuous voltage  $U_{max}$  with limiting continuous current on the contact side (see relevant technical data)  
Curve B  
Minimum permissible operate voltage  $U_{op}$  after pre-excitation (see relevant technical data)

Dimensional drawing



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Circuit diagram



## Classifications

eCl@ss

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	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 5.0	EC001437
ETIM 6.0	EC001437
ETIM 7.0	EC001437

UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515

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## Classifications

### UNSPSC

UNSPSC 12.01	39121515
UNSPSC 13.2	39122334

## Approvals

### Approvals

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Approvals
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UL Recognized / VDE Zeichengenehmigung / cUL Recognized / PRS / GL / UL Recognized / cUL Recognized / VDE Zeichengenehmigung / EAC / EAC

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### Ex Approvals

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Ex Approvals
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## Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40048281
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2109/880590/16
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GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	46016-03 HH
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 228652
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## Approvals

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 228652
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VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40007758
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EAC			TR_TS_D_00573_c
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EAC			TR_TS_S_00010_c
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## Accessories

### Additional products

Relay base - PLC-BPT- 24DC/ 1IC/ACT - 2900260



14 mm PLC basic terminal block for high switch-on currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V DC

Relay base - PLC-BSP- 24DC/ 1IC/ACT - 2912400



14 mm PLC basic terminal block for high switch-on currents with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V DC

Relay base - PLC-BSC- 24DC/ 1IC/ACT - 2967837



14 mm PLC basic terminal block for high switch-on currents with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V DC

