

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



2961341

<https://www.phoenixcontact.com/in/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	10 pc
Minimum order quantity	10 pc
Sales Key	CK6
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

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 ⁷ cycles

Insulation characteristics

Insulation	Safe isolation, reinforced insulation
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Insulation characteristics

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 Ω \pm 10 % (20 °C)

Output data

Switching

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

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Limiting continuous current	16 A
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

Approvals

Corrosive gas test

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

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Standards and regulations

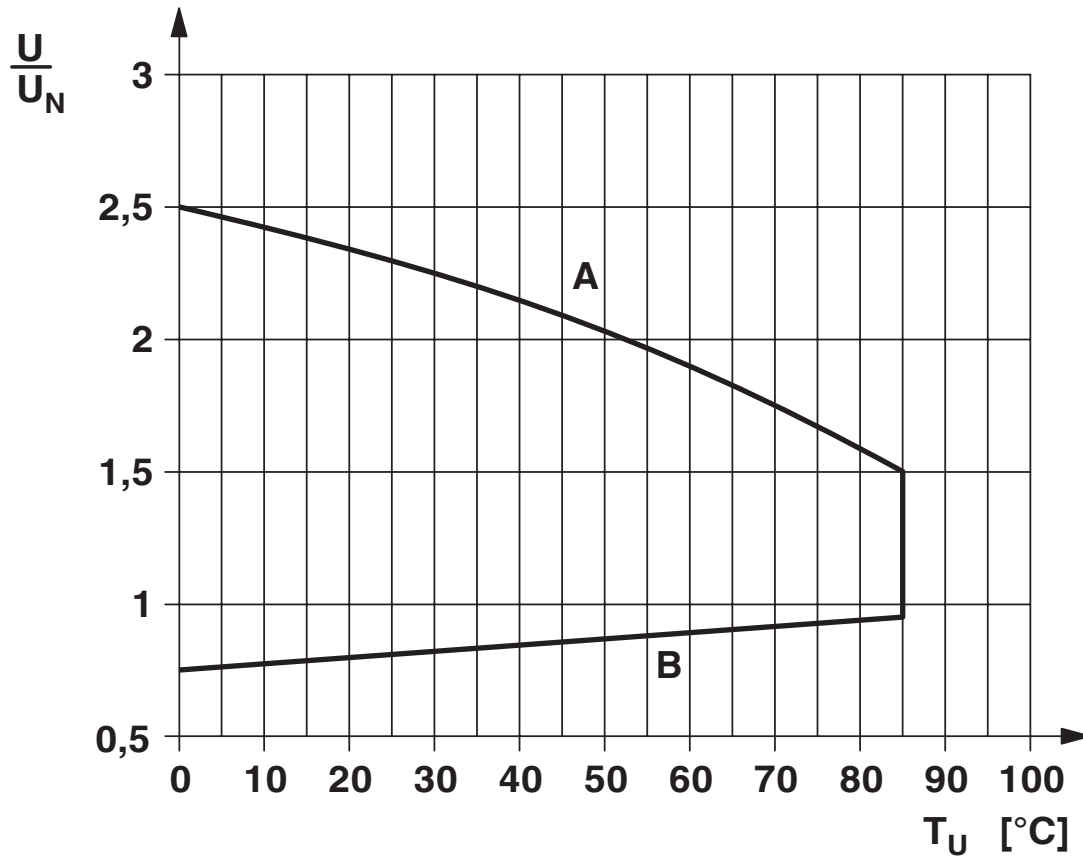
Standards/regulations	EN 50178
	EN 61810-1

Mounting

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

Drawings

Diagram



Curve A

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

Curve B

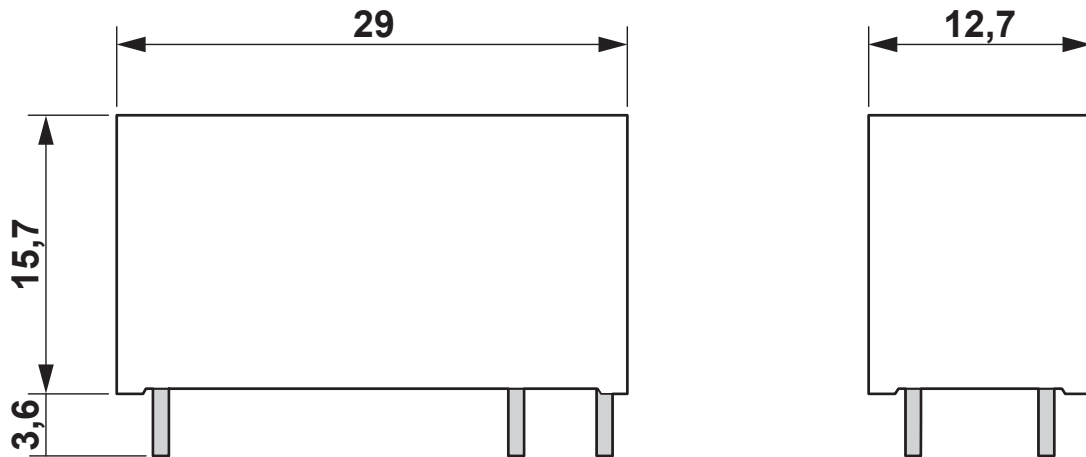
Minimum permissible operate voltage U_{op} after pre-excitation (see relevant technical data)

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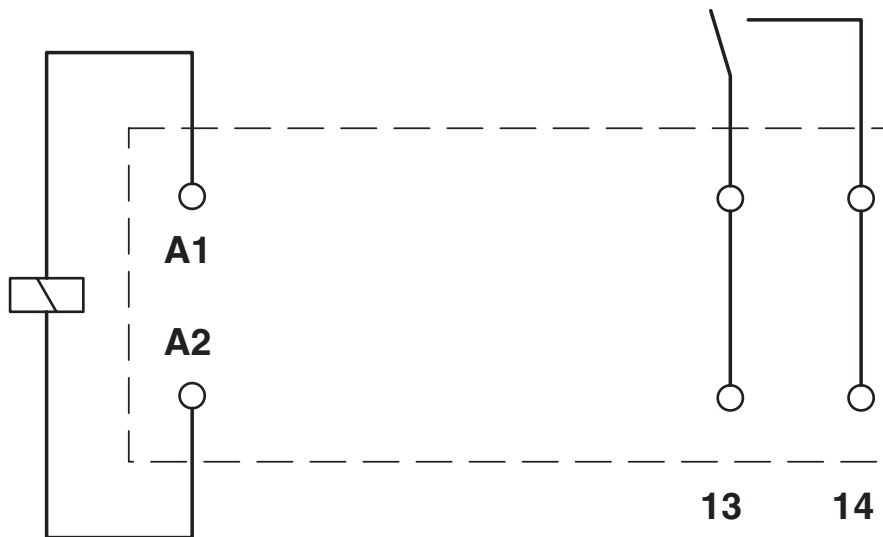
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Dimensional drawing



Circuit diagram



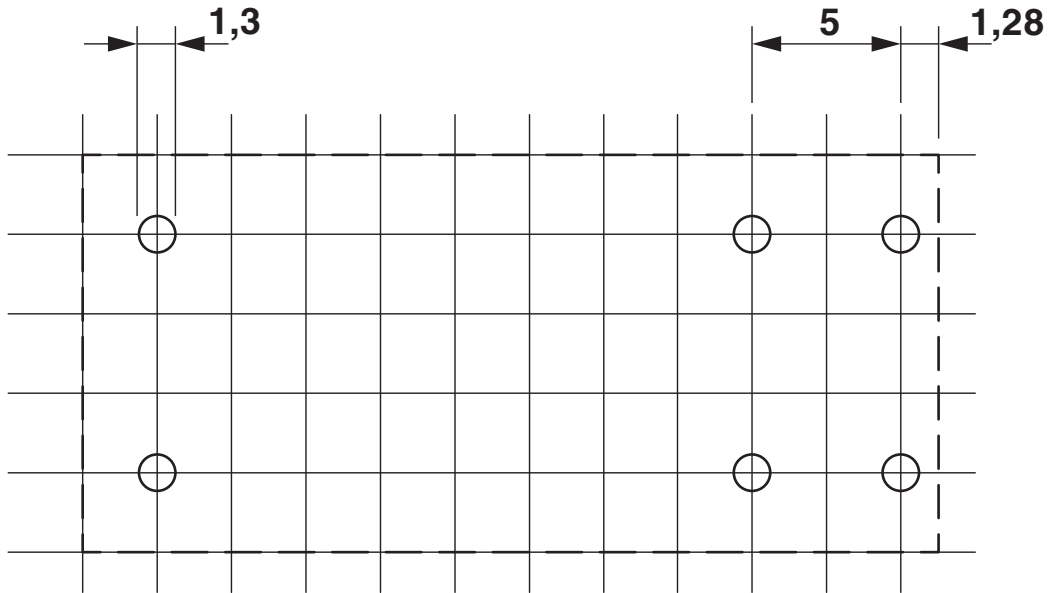
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Drilling plan/solder pad geometry



a = pitch division 2.5 mm

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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



VDE Zeichengenehmigung
Approval ID: 40048281



PRS
Approval ID: TE/2109/880590/16



cUL Recognized
Approval ID: FILE E 172140

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Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 8.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental Product Compliance

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

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Accessories

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

2900260

<https://www.phoenixcontact.com/in/products/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

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

2967837

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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

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