

REL-MR- 12DC/21 - Single relay

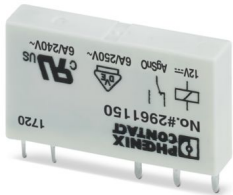
2961150

<https://www.phoenixcontact.com/us/products/2961150>



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Plug-in miniature power relay, with power contact, 1 changeover contact, input voltage 12 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 6 A

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2961150 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C460 |
| Product key | DK6921 |
| GTIN | 4017918159566 |
| Weight per piece (including packing) | 6.62 g |
| Weight per piece (excluding packing) | 5 g |
| Customs tariff number | 85364900 |
| Country of origin | CZ |

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Technical data

Product properties

| | |
|-------------------------|---------------------------|
| Product type | Single relay |
| Operating mode | 100% operating factor |
| Mechanical service life | 2x 10 ⁷ cycles |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree | 3 |

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 25.08.2025 |
|------------------------------|------------|

Electrical properties

| | |
|---|--|
| Maximum power dissipation for nominal condition | 0.17 W |
| Test voltage (Winding/contact) | 4 kV AC (50 Hz, 1 min., winding/contact) |

Input data

Coil side

| | |
|---|------------------------------------|
| Nominal input voltage U_N | 12 V DC |
| Input voltage range | 7.2 V DC ... 33 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 | 14 mA |
| Typical response time | 5 ms |
| Typical release time | 2.5 ms |
| Coil resistance | 848 Ω \pm 10 % (at 20 °C) |

Output data

Switching

| | |
|---------------------------------------|----------------------|
| Contact switching type | 1 changeover contact |
| Type of switch contact | Single contact |
| Contact material | AgSnO |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (at 100 mA) |
| Limiting continuous current | 6 A |
| Maximum inrush current | 10 A (4 s) |
| Min. switching current | 10 mA (at 12 V) |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC) |
| | 20 W (at 48 V DC) |
| | 18 W (at 60 V DC) |

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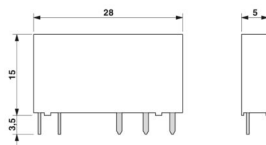
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| | |
|--------------------------------|--------------------------------------|
| Switching capacity | 23 W (at 110 V DC) |
| | 40 W (at 220 V DC) |
| | 1500 VA (for 250 V AC) |
| | 2 A (at 24 V, DC13) |
| | 0.2 A (at 110 V, DC13) |
| | 0.1 A (at 220 V, DC13) |
| | 3 A (at 24 V, AC15) |
| | 3 A (at 120 V, AC15) |
| Motor load according to UL 508 | 3 A (at 230 V, AC15) |
| | 1/4 HP, 240 - 277 V AC (N/O contact) |
| | 1/6 HP, 240 - 277 V AC (N/C contact) |

Connection data

| | |
|-------------------|--------------------------|
| Connection method | Plug / solder connection |
|-------------------|--------------------------|

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 5 mm |
| Height | 28 mm |
| Depth | 15 mm |

Material specifications

| | |
|-------|------------------|
| Color | white (RAL 9010) |
|-------|------------------|

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------|
| Degree of protection | RT III |
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Approvals

Corrosive gas test

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

Standards and regulations

| | |
|-----------------------|------------|
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| | EN 61810-1 |

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Mounting

| | |
|-------------------|---------------------------|
| Assembly note | in rows with zero spacing |
| Mounting position | any |

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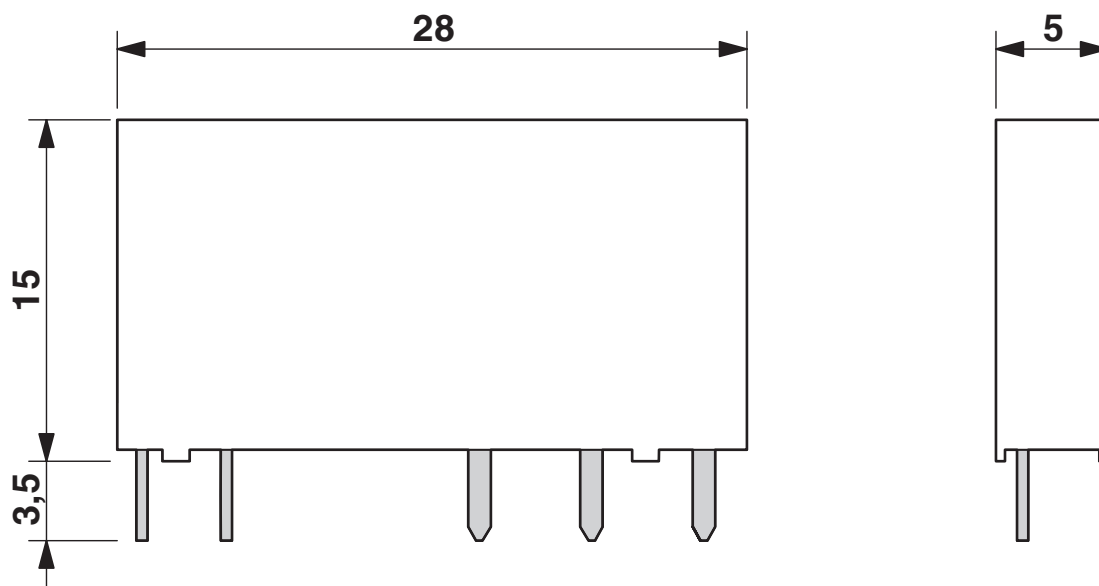
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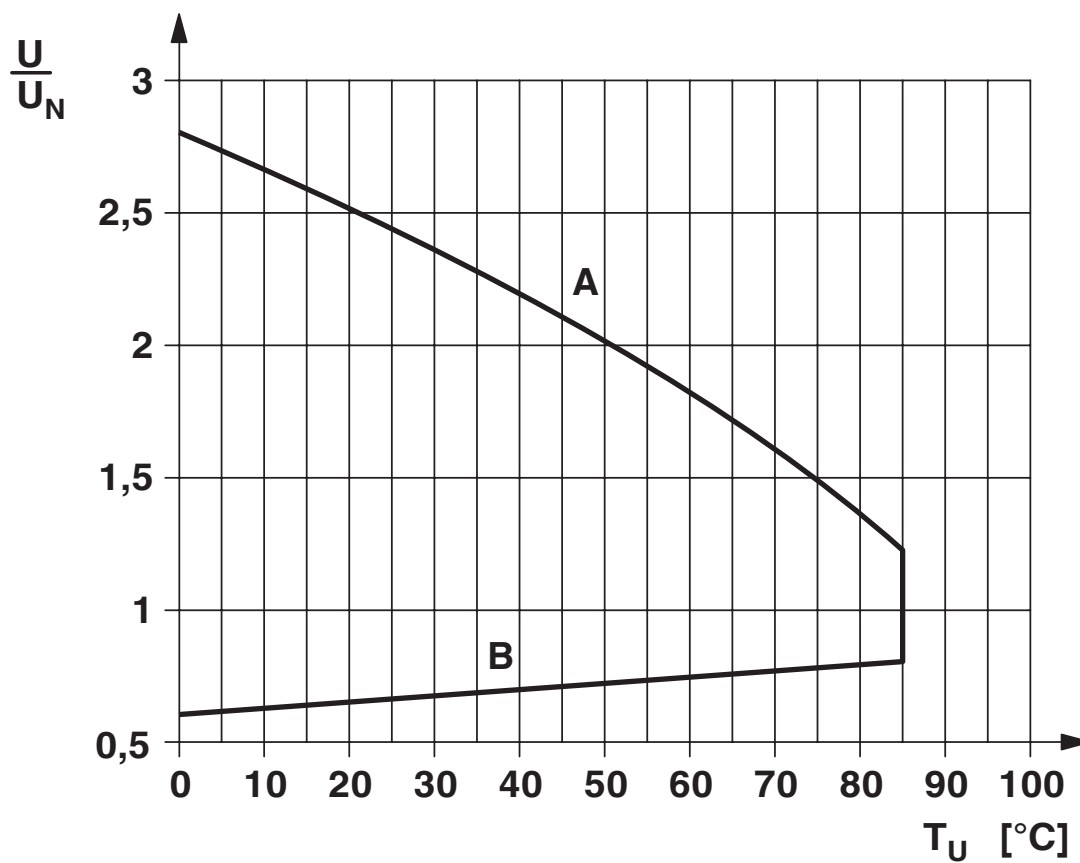


Drawings

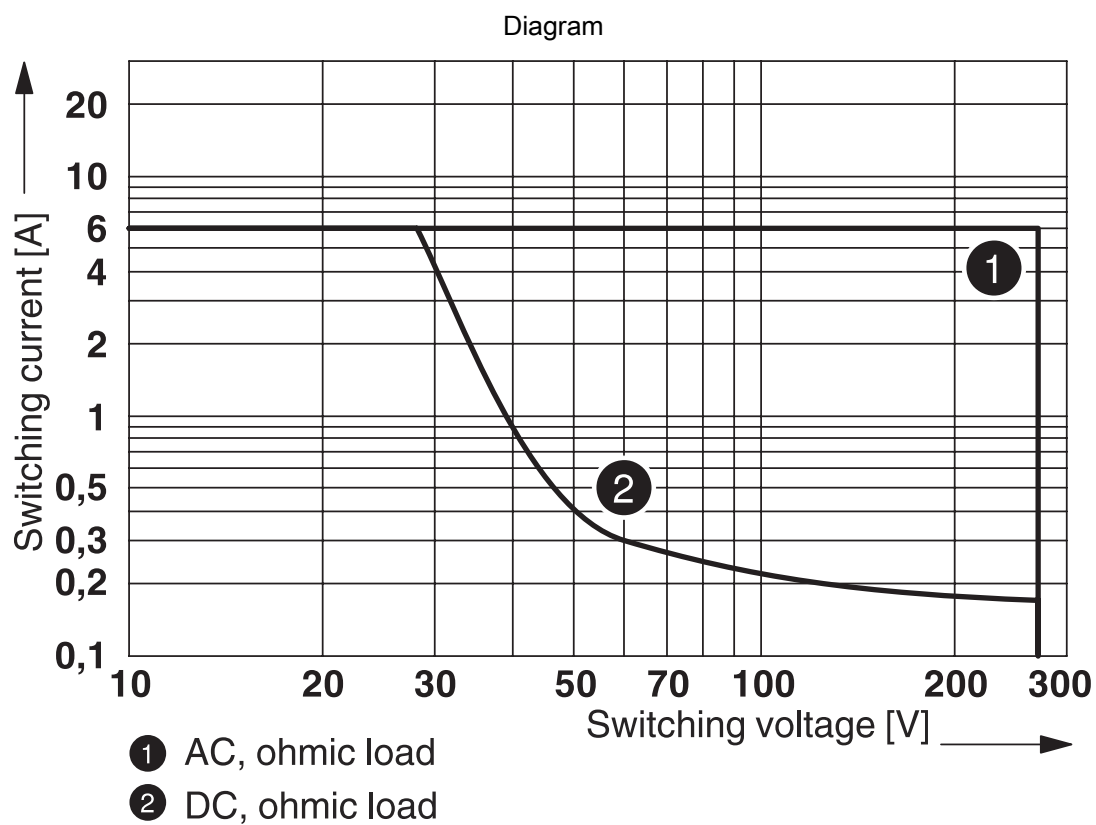
Dimensional drawing



Diagram



Operating voltage range



Interrupting rating



① 250 V AC, ohmic load

Electrical service life



Permissible humidity for operation and storage.

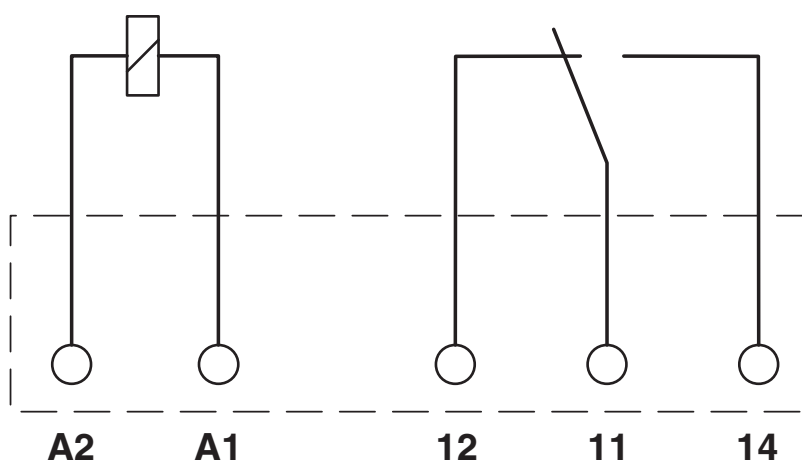
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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



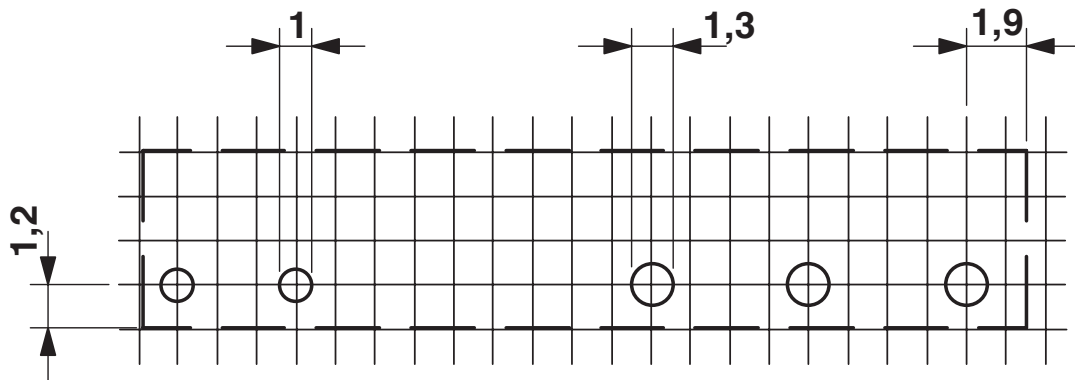
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Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

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Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2961150>




cUL Recognized
Approval ID: FILE E 172140




UL Recognized
Approval ID: FILE E 172140



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




UL Recognized
Approval ID: FILE E 172140




VDE approval of drawings
Approval ID: 40032864



VDE approval of drawings
Approval ID: 40054426




cUL Recognized
Approval ID: FILE E 172140



VDE approval of drawings
Approval ID: 40010212



cUL Recognized
Approval ID: FILE E 172140



UL Recognized
Approval ID: FILE E 172140

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

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% |
| EF3.0 Climate Change | |
| CO2e kg | 0.196 kg CO2e |

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