

REL-MR- 24DC/21AU - Single relay

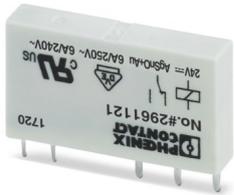


2961121

<https://www.phoenixcontact.com/us/products/2961121>

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Plug-in miniature power relay, with multi-layer gold contact, 1 changeover 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 6 A

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2961121 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C460 |
| Product key | DK6922 |
| GTIN | 4017918130879 |
| Weight per piece (including packing) | 6.92 g |
| Weight per piece (excluding packing) | 6.525 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 | 19.03.2025 |
|------------------------------|------------|

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 | 24 V DC |
| Input voltage range | 14.4 V DC ... 66 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 | 7 mA |
| Typical response time | 5 ms |
| Typical release time | 2.5 ms |
| Coil resistance | 3390 Ω \pm 10 % (at 20 °C) |

Output data

Switching

| | |
|---------------------------------------|-------------------------|
| Contact switching type | 1 changeover contact |
| Type of switch contact | Single contact |
| Contact material | AgSnO, hard gold-plated |
| Maximum switching voltage | 30 V AC 36 V DC |
| Minimum switching voltage | 100 mV (at 10 mA) |
| Limiting continuous current | 50 mA |
| Maximum inrush current | 50 mA |
| Min. switching current | 1 mA (at 24 V) |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC) |

Switching: when the gold layer is destroyed

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| | |
|---------------------------------------|--|
| Note | the following values are applicable if a gold layer is destroyed |
| Contact material | AgSnO |
| Maximum switching voltage | 250 V AC |
| Minimum switching voltage | 5 V (at 100 mA) |
| Limiting continuous current | 6 A |
| 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) 23 W (at 110 V DC) 40 W (at 220 V DC) 1500 VA (for 250 V AC) |
| Switching capacity | 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) 3 A (at 230 V, AC15) |

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

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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 |

Mounting

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

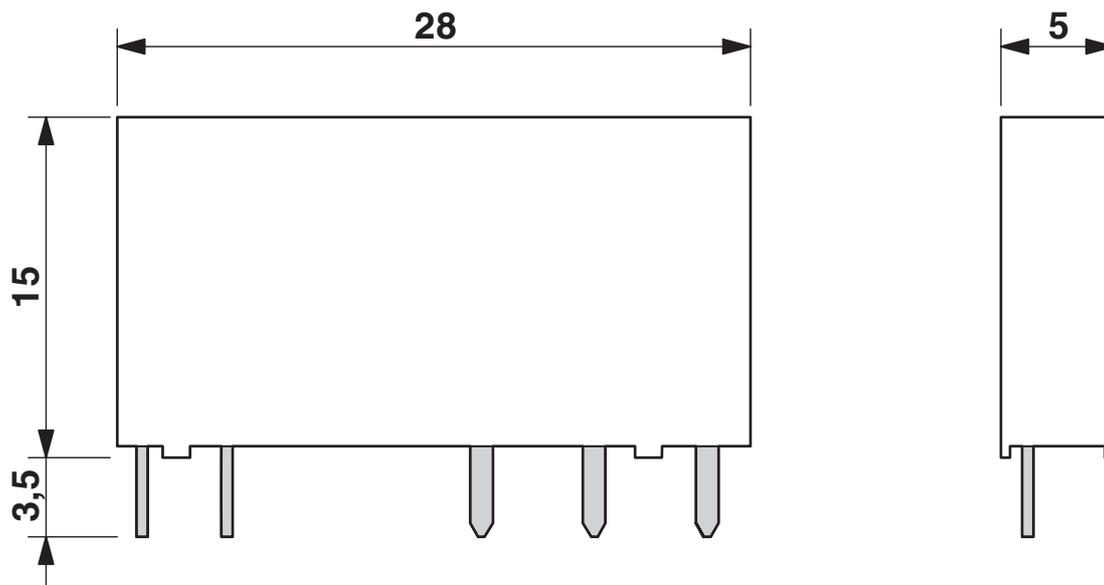
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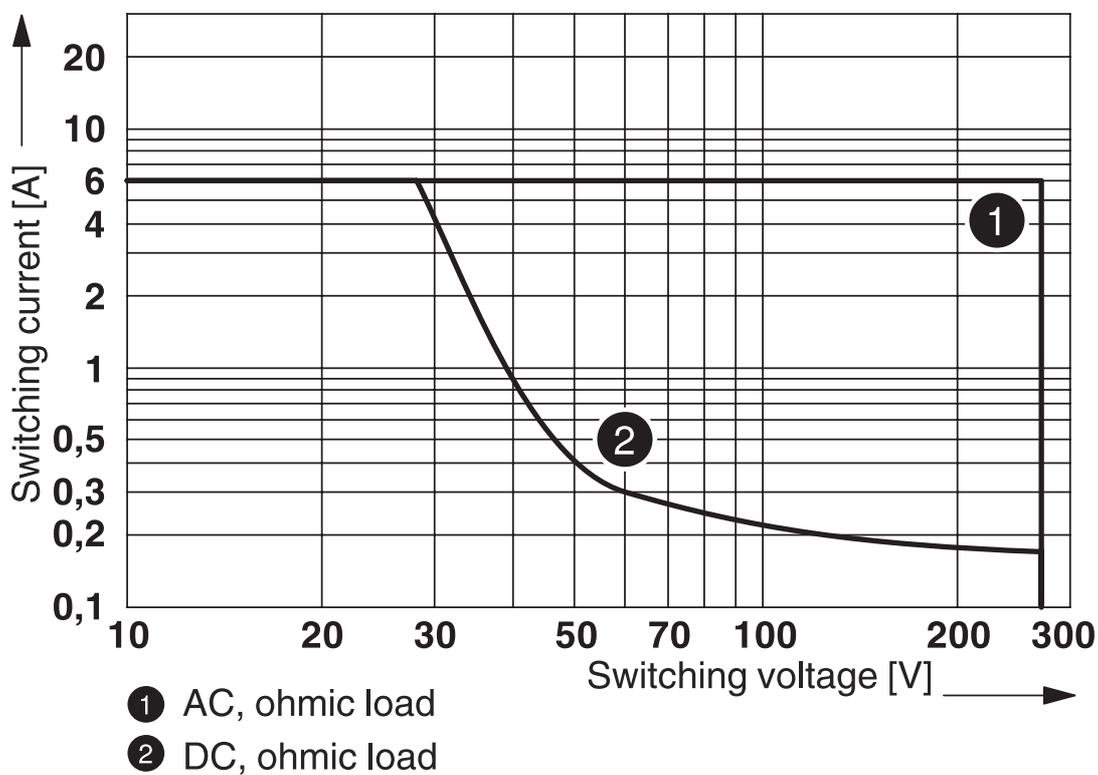
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Drawings

Dimensional drawing



Diagram



Interrupting rating

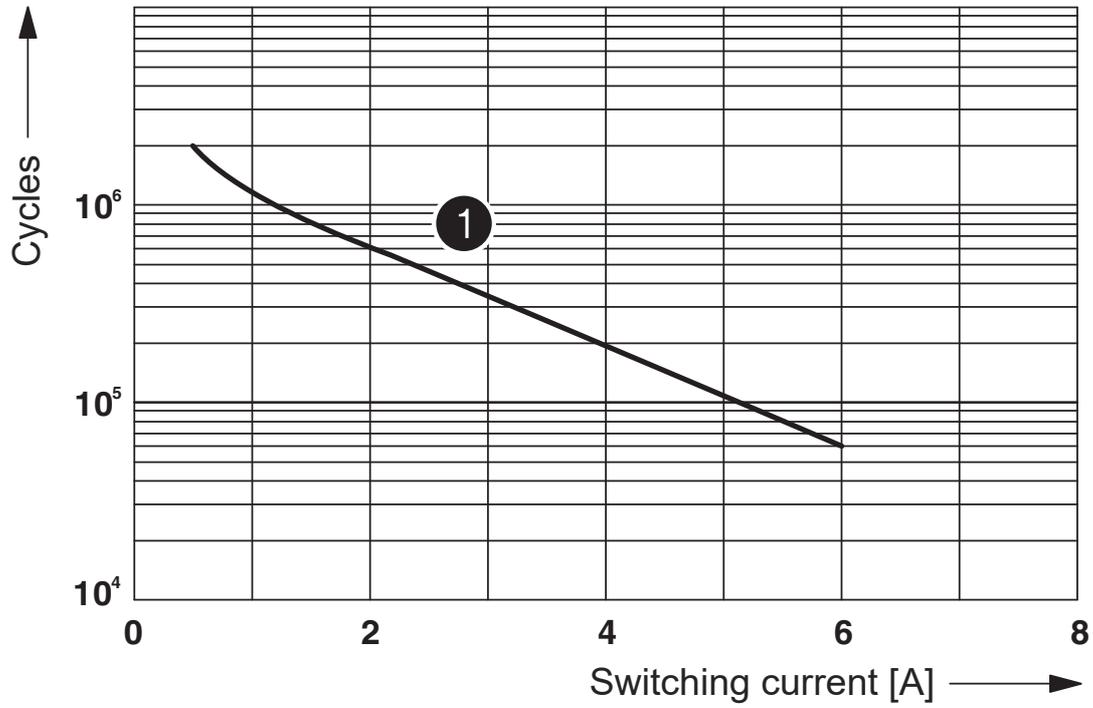
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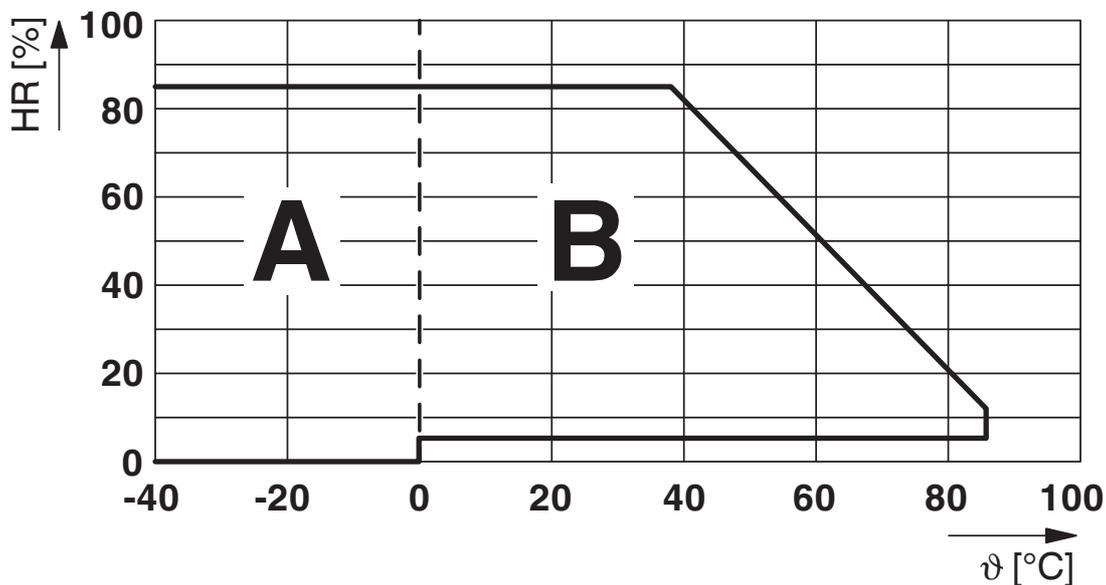
Diagram



① 250 V AC, ohmic load

Electrical service life

Diagram



Permissible humidity for operation and storage.

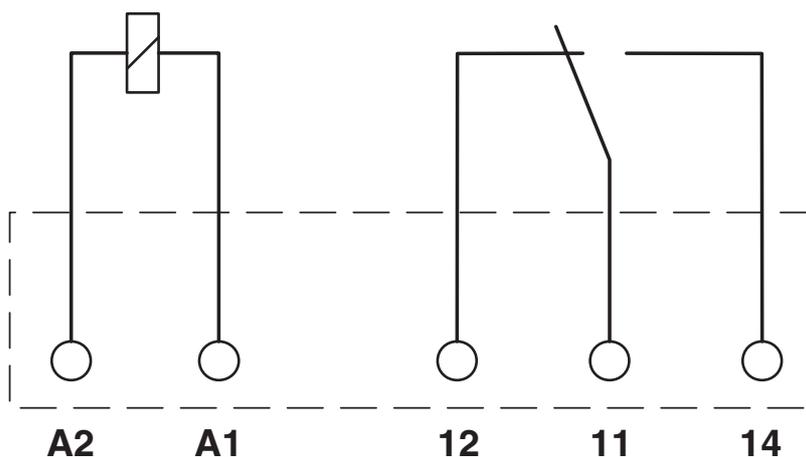
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented

Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

Circuit diagram



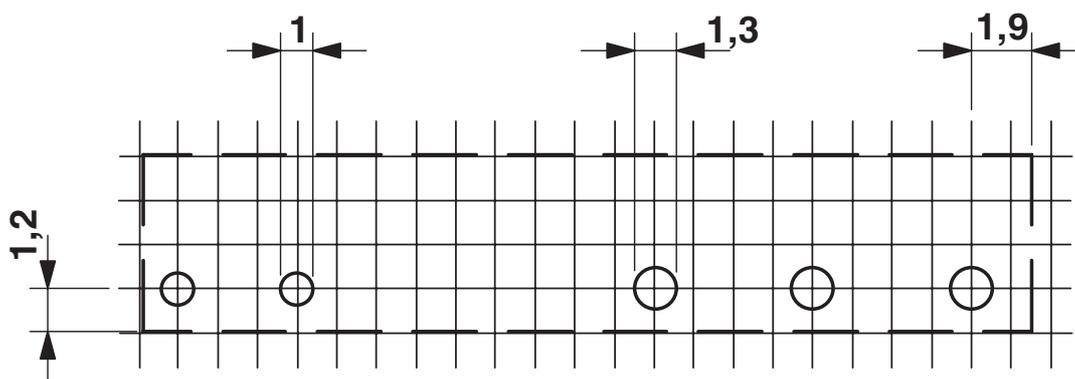
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Drilling plan/solder pad geometry



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/2961121>



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
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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% |
|-------------------------------------|----------------------------|

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