

# REL-MR- 48DC/21AU - Single relay

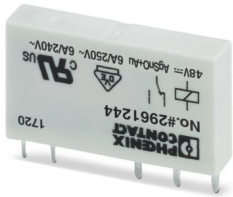


2961244

<https://www.phoenixcontact.com/us/products/2961244>

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Plug-in miniature relay, with multi-layer contact, 1 changeover contact, input voltage 48 V DC



## Your advantages

- Power contacts up to 6 A

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2961244                        |
| Packing unit                         | 10 pc                          |
| Minimum order quantity               | 10 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | C460                           |
| Product key                          | DK6922                         |
| GTIN                                 | 4046356294324                  |
| Weight per piece (including packing) | 6.79 g                         |
| Weight per piece (excluding packing) | 6.79 g                         |
| Customs tariff number                | 85364190                       |
| 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 <sup>7</sup> cycles |

### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 01.04.2026 |
|------------------------------|------------|

### 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 <sub>N</sub> | 48 V DC                |
| Input voltage range                  | 28.8 V DC ... 132 V DC |
| Drive and function                   | monostable             |
| Drive (polarity)                     | non-polarized          |

### 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<br>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

|                             |   |
|-----------------------------|---|
| Note                        | <b>the following values are applicable if a gold layer is destroyed</b> |
| 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)<br>140 W (at 24 V DC)                                   |

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|                                       |                        |
|---------------------------------------|------------------------|
| Interrupting rating (ohmic load) max. | 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

### Item dimensions

|        |       |
|--------|-------|
| 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 |

## Mounting

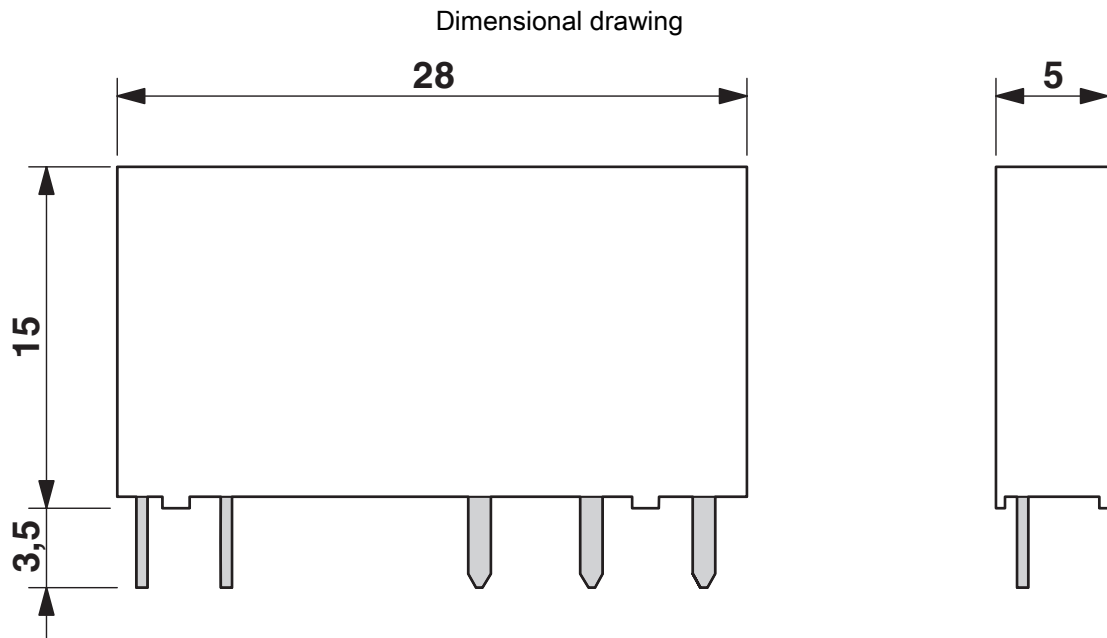
|                   |                           |
|-------------------|---------------------------|
| Assembly note     | in rows with zero spacing |
| Mounting position | any                       |

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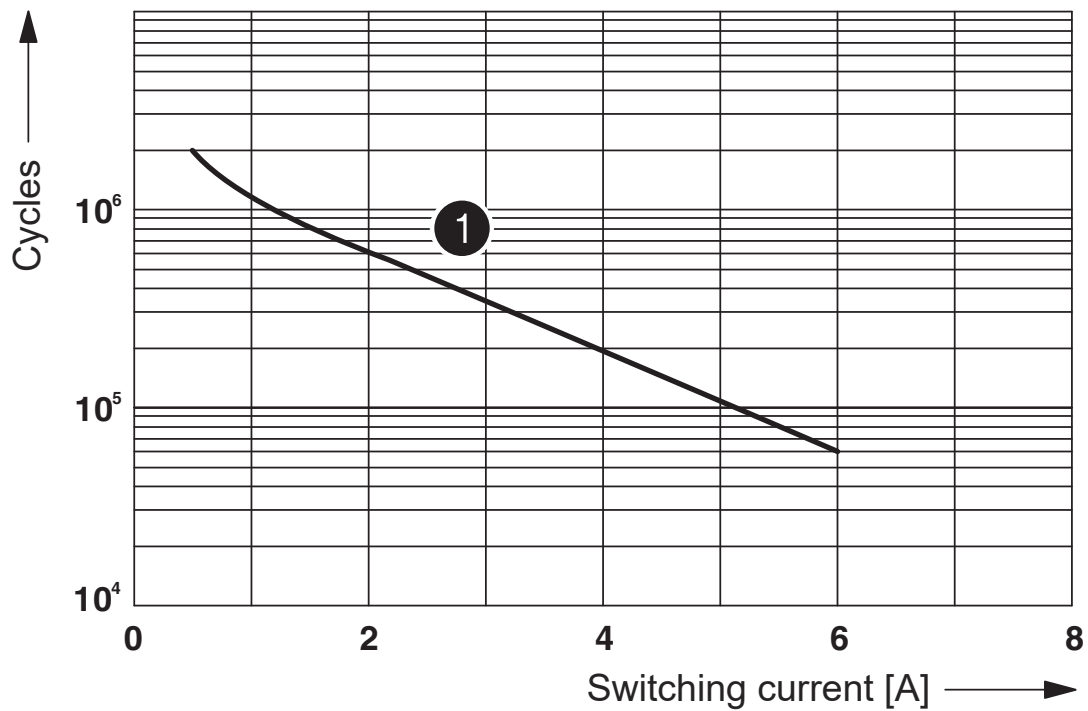
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## Drawings



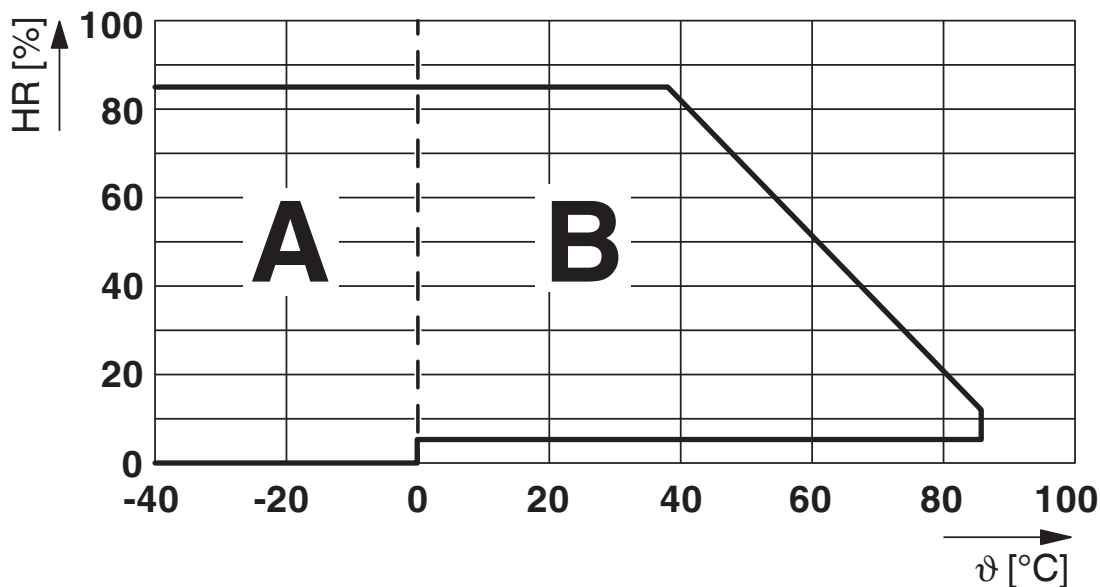
Diagram



① 250 V AC, ohmic load

Electrical service life

Diagram



Permissible humidity for operation and storage.

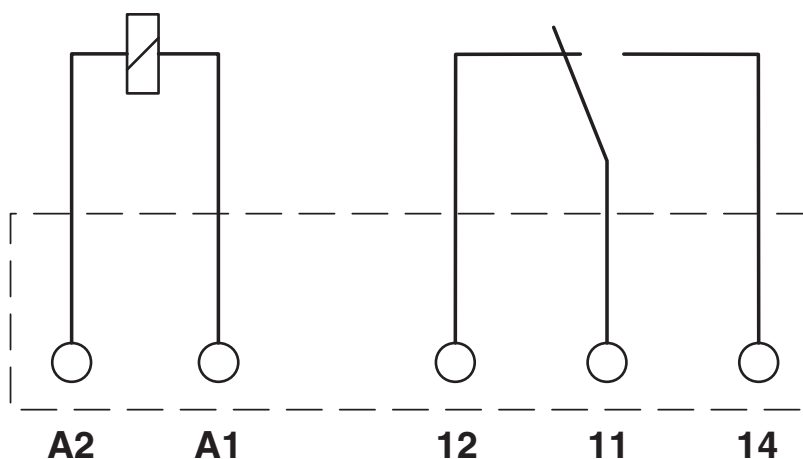
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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



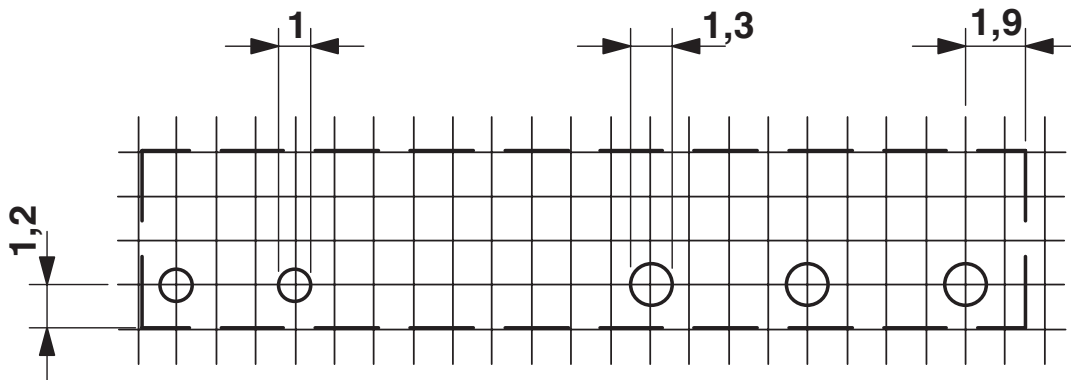
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Drilling plan/solder pad geometry



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/2961244>



**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 10.0 | 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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