

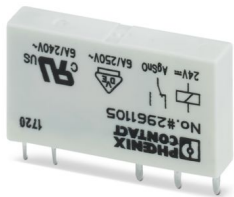
# REL-MR- 24DC/21 - Single relay



2961105  
<https://www.phoenixcontact.com/us/products/2961105>

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Plug-in miniature power relay, with power 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                          | 2961105       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | C460          |
| Product key                          | DK6921        |
| GTIN                                 | 4017918130893 |
| Weight per piece (including packing) | 6.73 g        |
| Weight per piece (excluding packing) | 5 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 |

### Insulation characteristics

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

### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 05.09.2025 |
|------------------------------|------------|

### 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 <sub>N</sub>               | 24 V DC                 |
| Input voltage range                                | 14.4 V DC ... 66 V DC   |
| Input voltage range in reference to U <sub>N</sub> | see diagram             |
| Drive and function                                 | monostable              |
| Drive (polarity)                                   | non-polarized           |
| Typical input current at U <sub>N</sub>            | 7 mA                    |
| Typical response time                              | 5 ms                    |
| Typical release time                               | 2.5 ms                  |
| Coil resistance                                    | 3390 Ω ±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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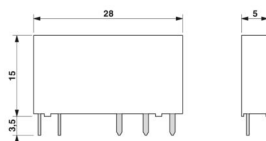


|                                |                                      |
|--------------------------------|--------------------------------------|
| Switching capacity             | 23 W (at 110 V DC)                   |
|                                | 40 W (at 220 V DC)                   |
|                                | 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 |

## 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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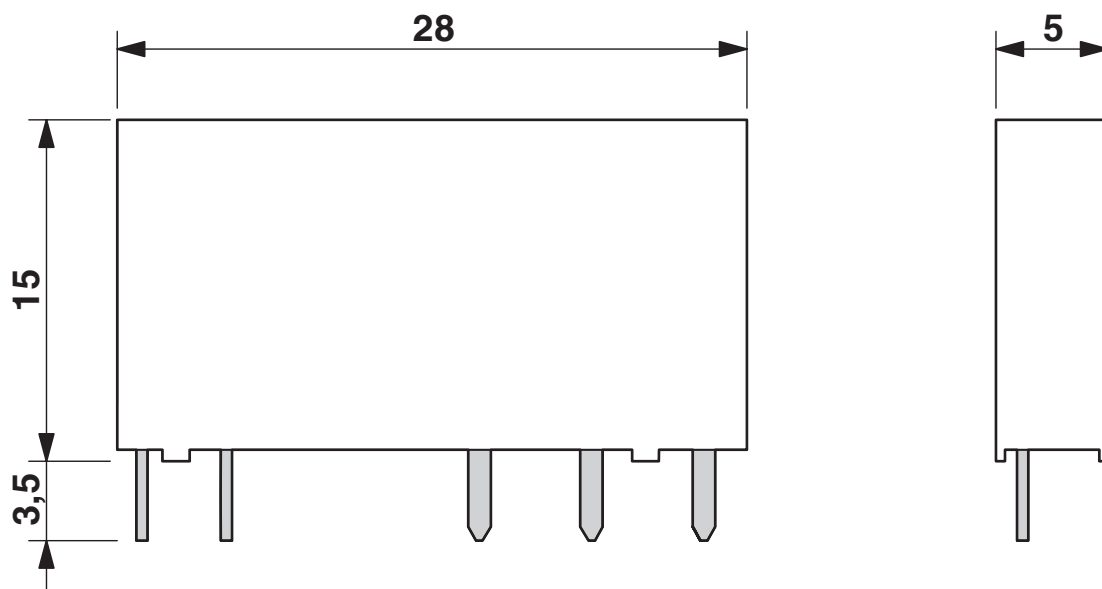
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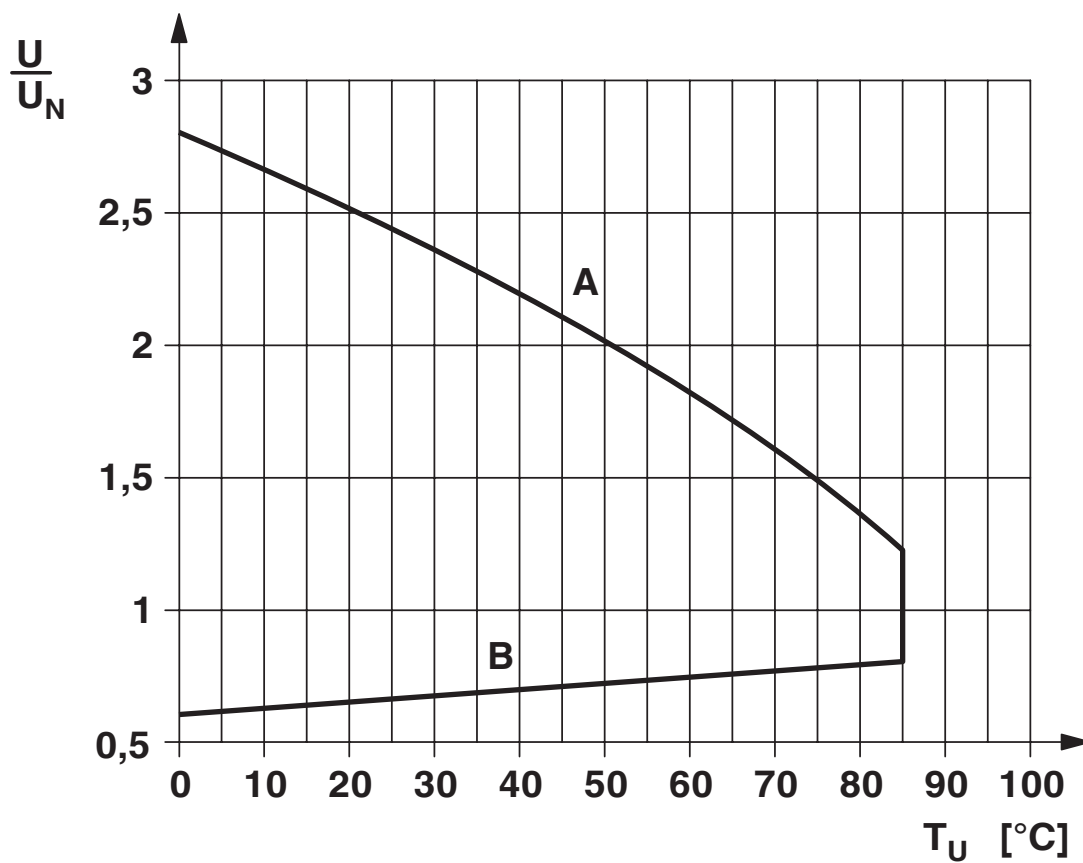


## Drawings

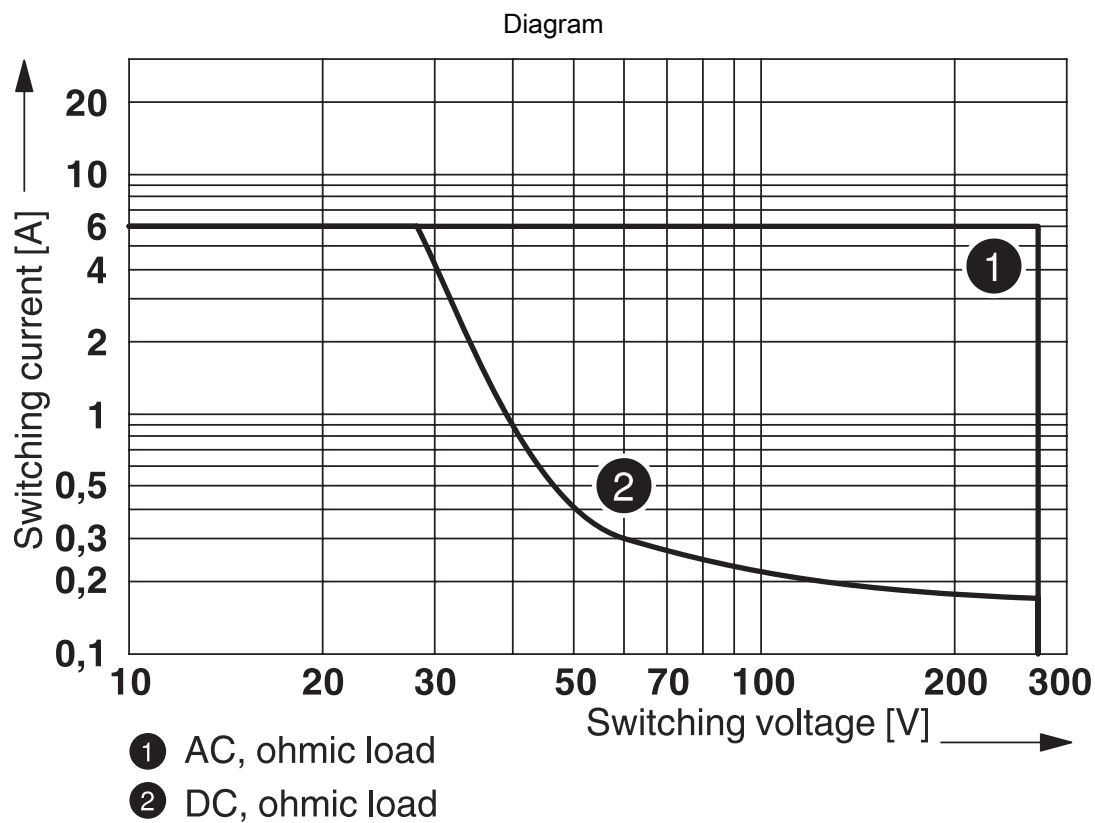
Dimensional drawing



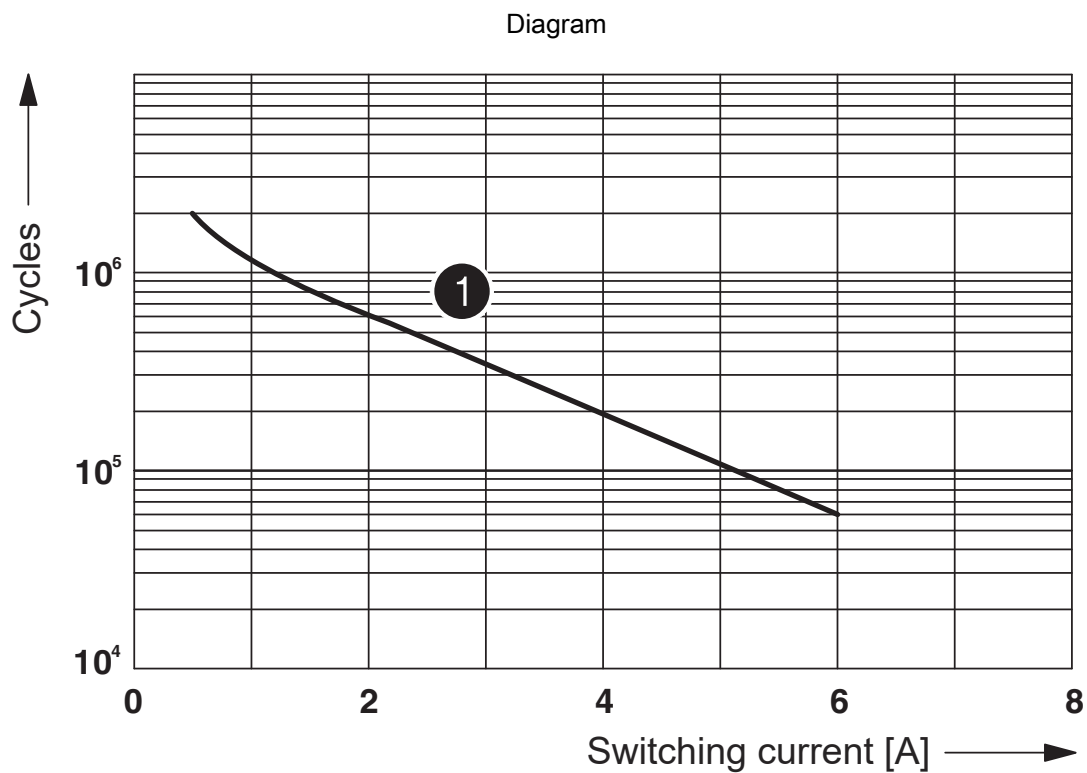
Diagram



Operating voltage range

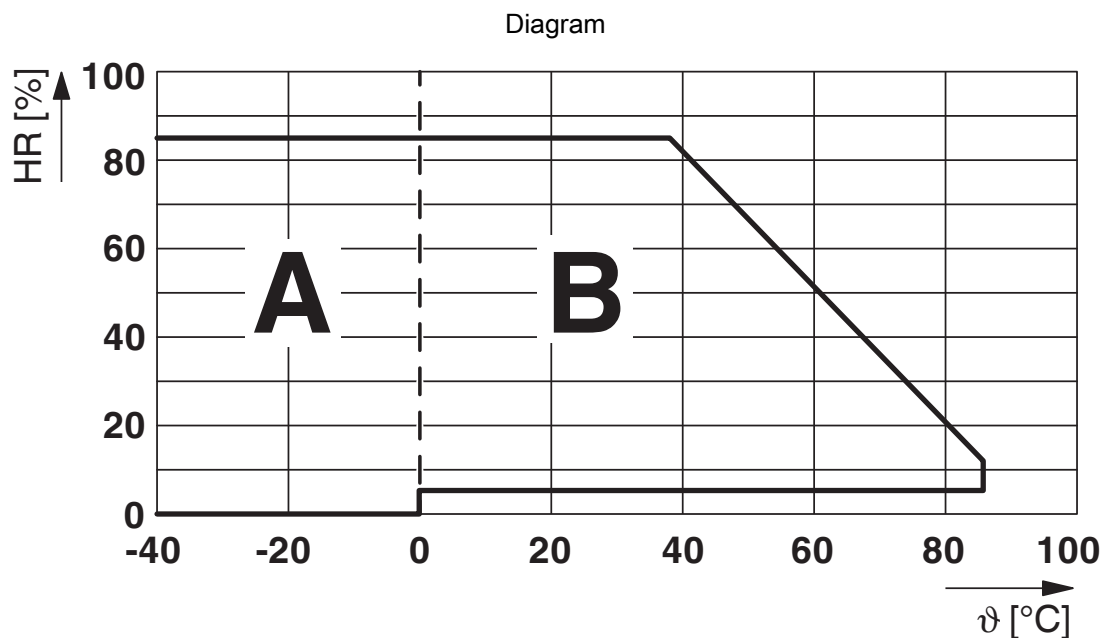


Interrupting rating



① 250 V AC, ohmic load

Electrical service life



Permissible humidity for operation and storage.

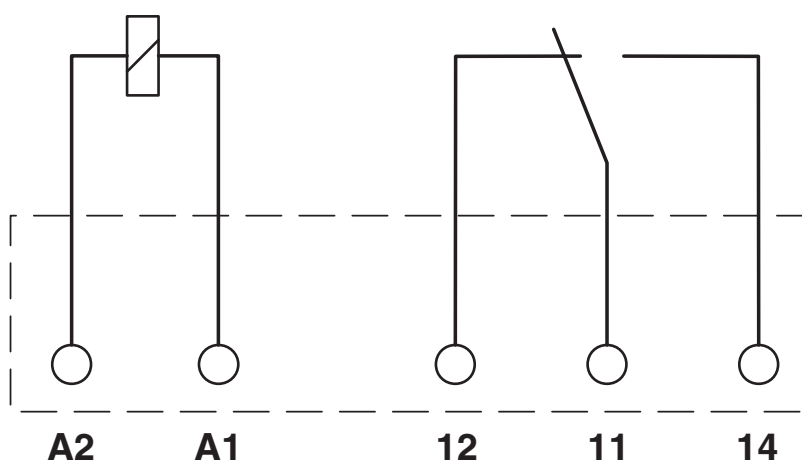
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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



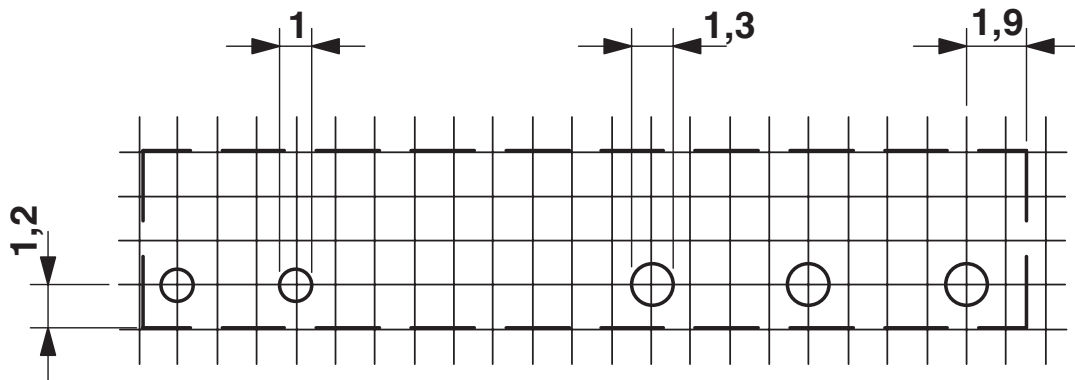
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Drilling plan/solder pad geometry



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/2961105>



**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                                 | 0.191 kg CO2e                            |

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)