

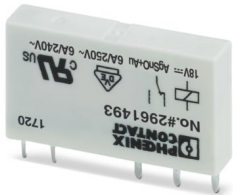
# REL-MR- 18DC/21AU - Single relay

2961493

<https://www.phoenixcontact.com/au/products/2961493>



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Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 18 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                          | 2961493             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | DK6922              |
| Product key                          | DK6922              |
| Catalog page                         | Page 394 (C-5-2019) |
| GTIN                                 | 4017918936525       |
| Weight per piece (including packing) | 6.508 g             |
| Weight per piece (excluding packing) | 6.508 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 | 19.03.2025 |
|------------------------------|------------|

### Electrical properties

|   |        |
|---|--------|
| Maximum power dissipation for nominal condition | 0.16 W |
|---|--------|

### Input data

#### Coil side

|   |                         |
|---|-------------------------|
| Nominal input voltage U <sub>N</sub>    | 18 V DC                 |
| Input voltage range                     | 10.8 V DC ... 49.5 V DC |
| Drive and function                      | monostable              |
| Drive (polarity)                        | non-polarized           |
| Typical input current at U <sub>N</sub> | 9 mA                    |
| Typical response time                   | 5 ms                    |
| Typical release time                    | 2.5 ms                  |
| Coil resistance                         | 1906 Ω ±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<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 capacity                    | 3 A (at 24 V, AC15)     |

Switching: when the gold layer is destroyed

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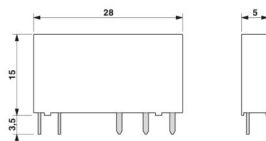


|                                       |  |
|---------------------------------------|--|
| Note                                  | the following values are applicable if a gold layer is destroyed |
| Contact material                      | AgSnO  |
| Maximum switching voltage             | 250 V AC/DC  |
| 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 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

### Corrosive gas test

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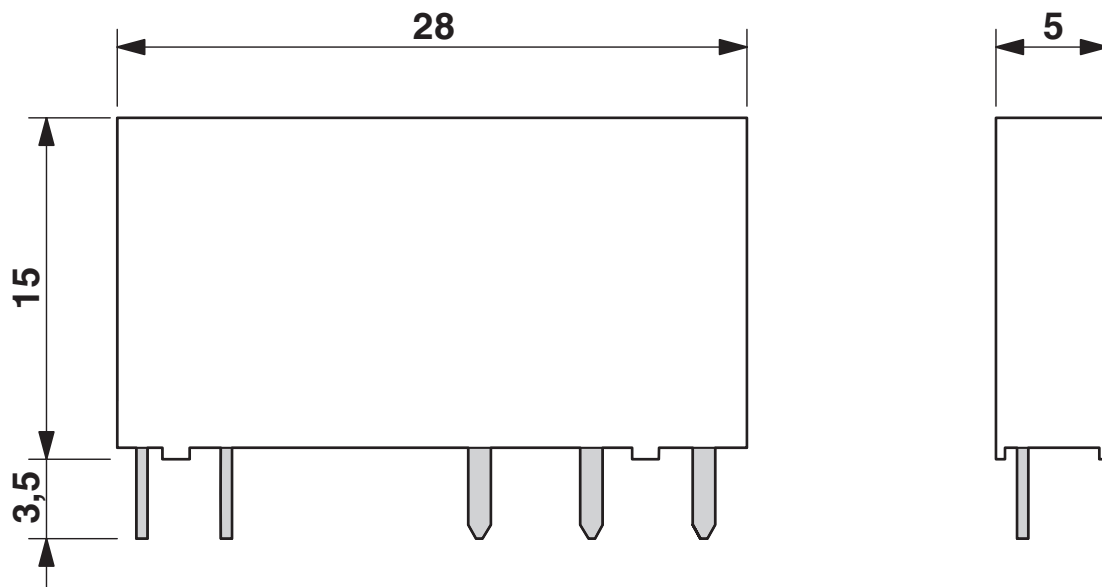
|                |                            |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
|                | EN 60068-2-60              |

## Standards and regulations

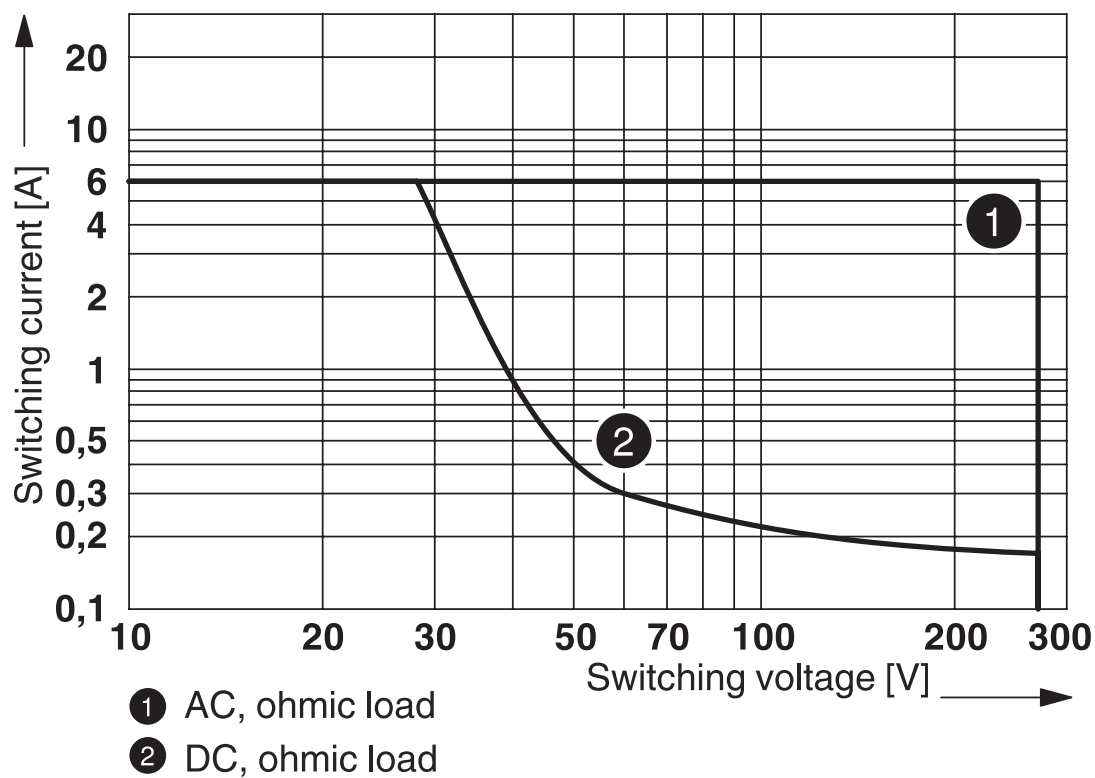
|                       |            |
|-----------------------|------------|
| Standards/regulations | IEC 60664  |
|                       | EN 50178   |
|                       | EN 61810-1 |

## Drawings

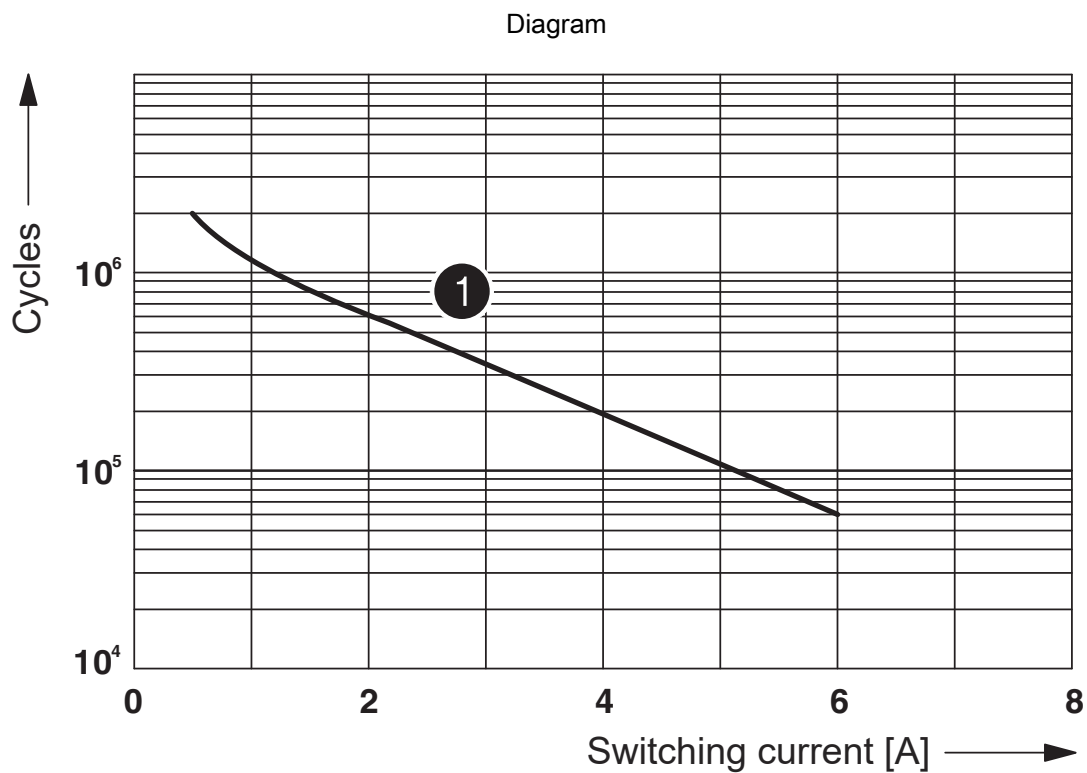
Dimensional drawing



Diagram

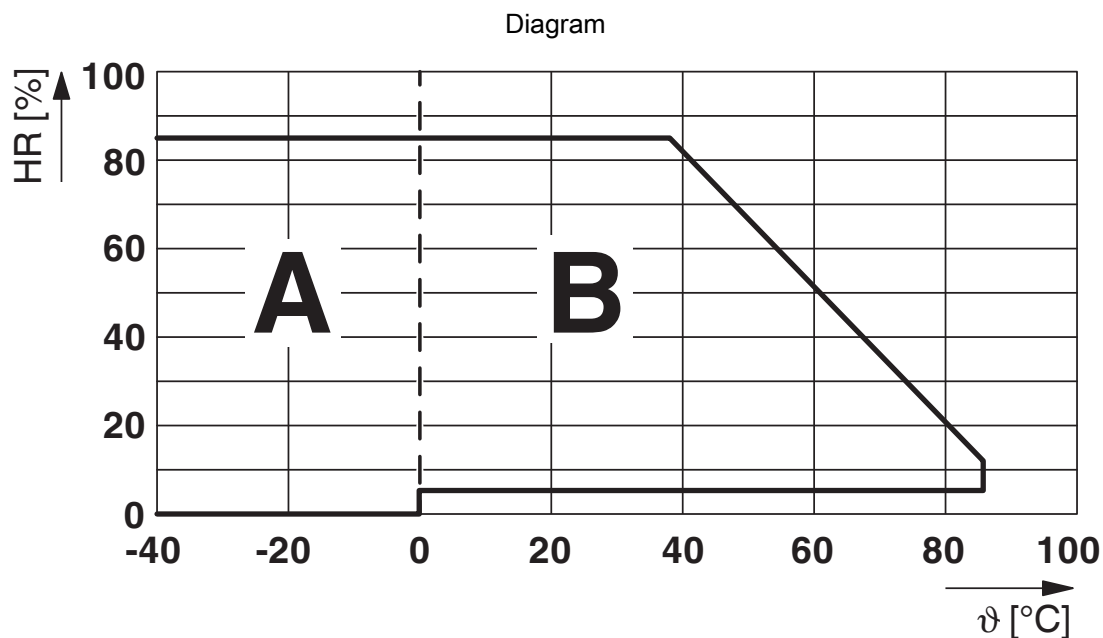


Interrupting rating



① 250 V AC, ohmic load

Electrical service life



Permissible humidity for operation and storage.

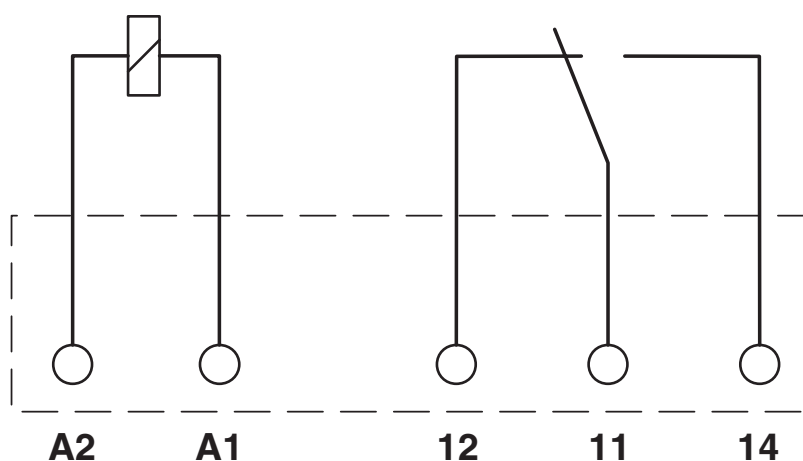
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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



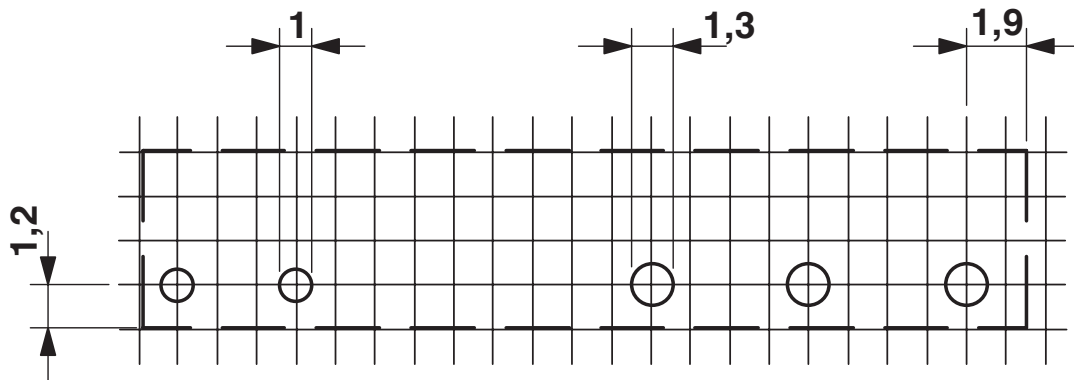
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Drilling plan/solder pad geometry



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/au/products/2961493>



**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 |
|-------------|----------|

### 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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