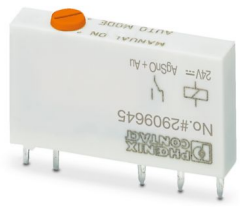
# REL-MR- 24DC/21AU/MS - Single relay

2909645

https://www.phoenixcontact.com/gb/products/2909645

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Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, manual operation, 24 V DC input voltage

## Commercial data

| | |
|---|---|
| Item number | 2909645 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | DK6924 |
| Product key | DK6924 |
| GTIN | 4055626377803 |
| Weight per piece (including packing) | 6.8 g |
| Weight per piece (excluding packing) | 6.8 g |
| Customs tariff number | 85364190 |
| Country of origin | CZ |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Single relay |
| Operating mode | 100% operating factor |
| Mechanical service life | 1x $10^7$ cycles |

### Insulation characteristics

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

### Data management status

| | |
|---|---|
| Date of last data management | 03.07.2026 |

## 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 $U_N$ | 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 ±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) |
| Motor load according to UL 508 | 1/4 HP, 240 - 277 V AC (N/O contact) |

| | |
|---|---|
| | 1/6 HP, 240 - 277 V AC (N/C contact) |

Switching: when the gold layer is destroyed

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

Item dimensions

| | |
|---|---|
| Width | 5 mm |
| Height | 28 mm |
| Depth | 16 mm |

## Material specifications

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

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | RT II |
| 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

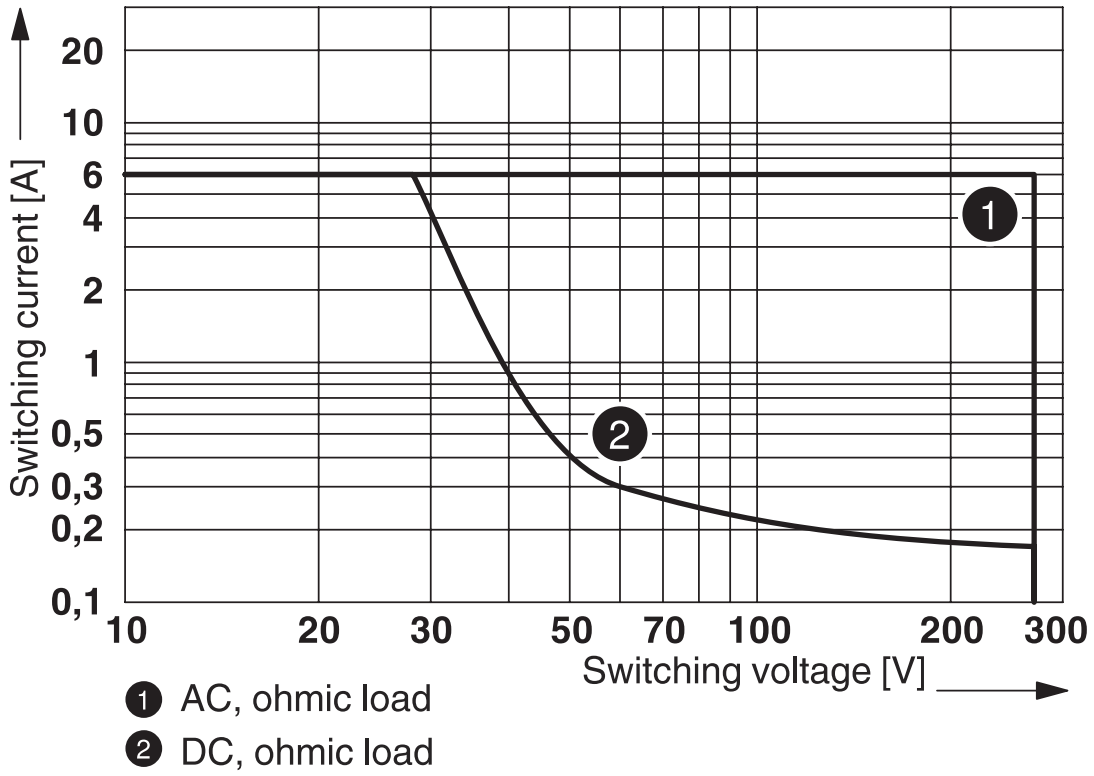
| | |
|---|---|
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| | EN 61810-1 |

## Mounting

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

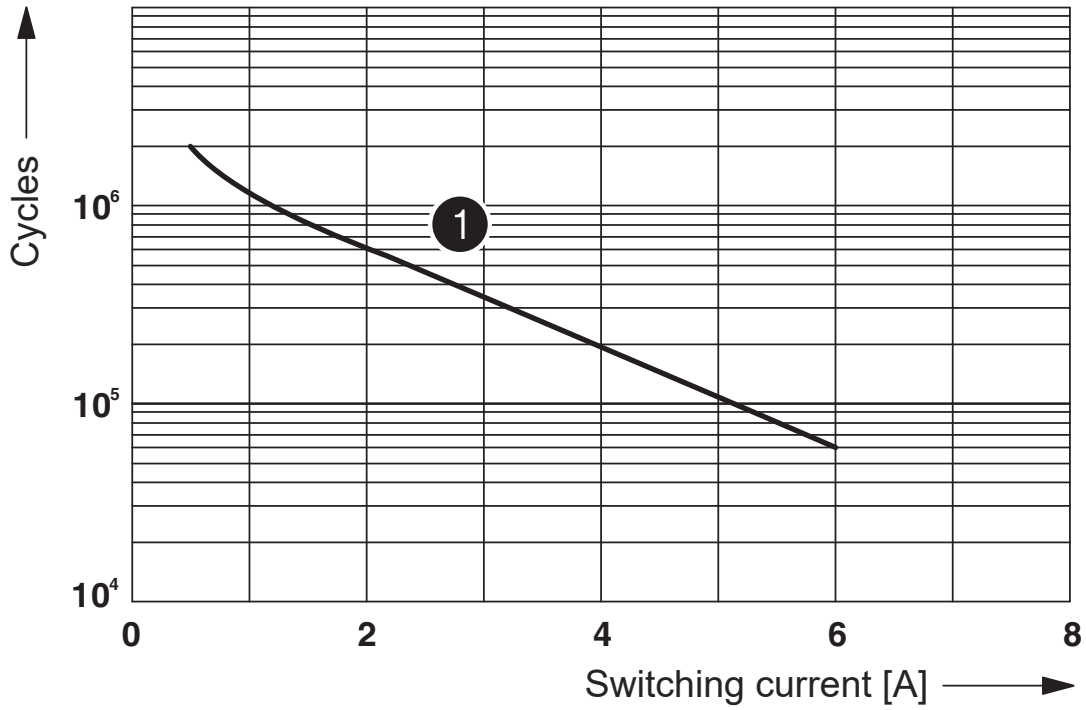
## Drawings

Diagram




Interrupting rating

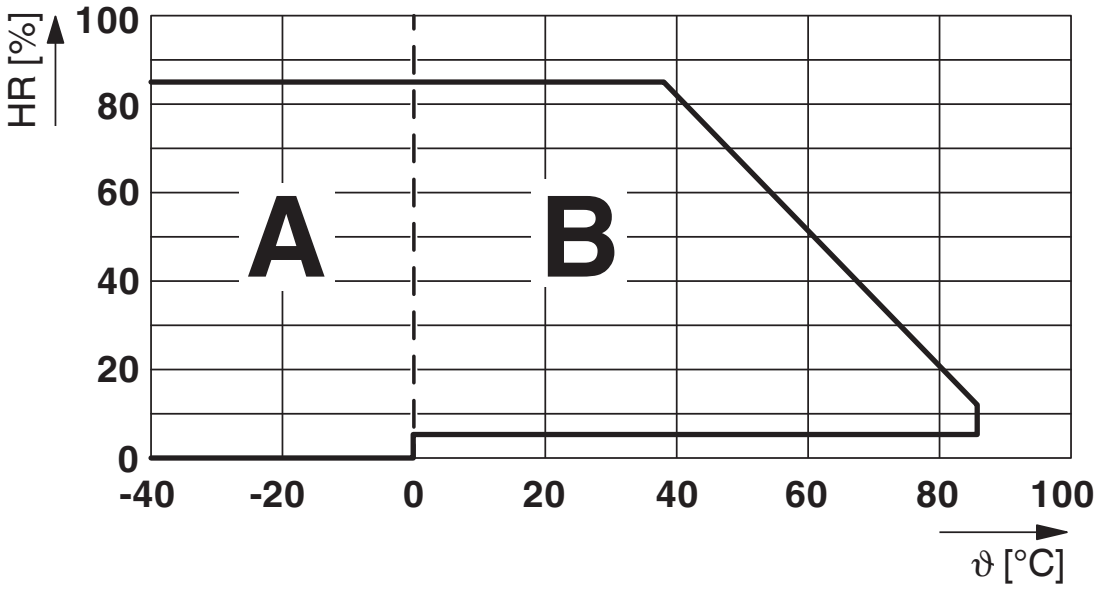
Diagram




1 250 V AC, ohmic load

Electrical service life

Diagram

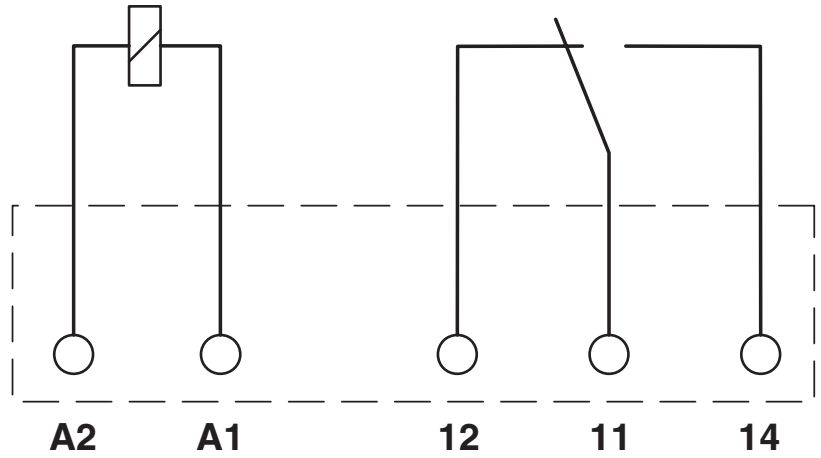



Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

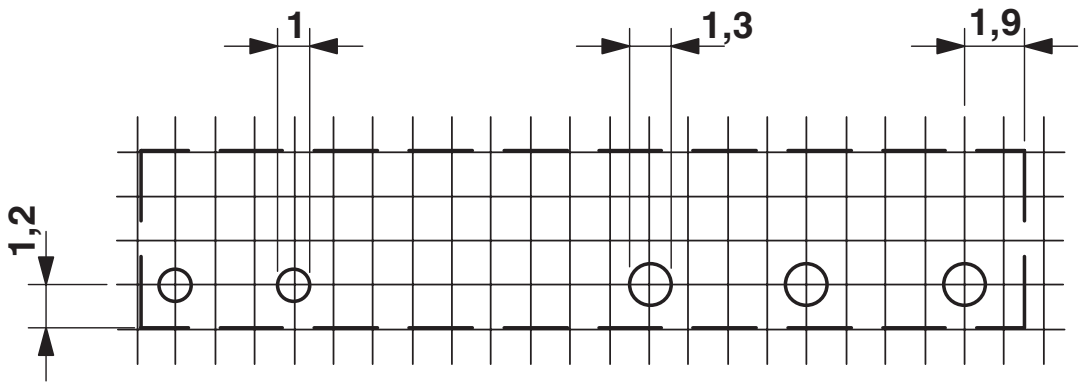
Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°C must be prevented

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



Drilling plan/solder pad geometry




View from below

a = grid spacing 1.25 mm and 1.27 mm

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/2909645

**cUL Recognized**
Approval ID: FILE E 228652

**UL Recognized**
Approval ID: FILE E 228652

**VDE Zeichengenehmigung**
Approval ID: 40010212

## Classifications

### ECLASS

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

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001437 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39122300 |

## 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% |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.245 kg CO2e |


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PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk