

Single relay - REL-MR- 48DC/21 - 2961231

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Plug-in miniature relay, with power contact, 1 PDT, 48 V DC input voltage


The figure shows the version REL-MR- 24DC/21

Your advantages

- ✓ Safe isolation according to DIN EN 50178 between coil and contact
- ✓ High degree of protection up to RT III depending on type (wash-proof)
- ✓ Power contacts up to 6 A



Key Commercial Data

| | |
|------------------------|---|
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| GTIN |  4 046356 294317 |
| GTIN | 4046356294317 |

Technical data

Dimensions

| | |
|--------|-------|
| Width | 5 mm |
| Height | 28 mm |
| Depth | 15 mm |

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Degree of protection | RT III |

Coil side

| | |
|--------------------------------|---------|
| Nominal input voltage U_N | 48 V DC |
| Typical input current at U_N | 4.5 mA |

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Technical data

Coil side

| | |
|---|--------------------------|
| Typical response time | 5 ms |
| Typical release time | 2.5 ms |
| Coil resistance | 10618 Ω ±10 % (at 20 °C) |
| Power dissipation for nominal condition | 0.22 W |

Contact side

| | |
|---------------------------------------|------------------------|
| Contact type | 1 PDT |
| Type of switch contact | Single contact |
| Contact material | AgSnO |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (at 100 mA) |
| Min. switching current | 10 mA (at 12 V) |
| Maximum inrush current | 10 A (4 s) |
| Limiting continuous current | 6 A |
| 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) |

General

| | |
|--|---------------------------|
| Test voltage relay winding/relay contact | 4 kV AC (50 Hz, 1 min.) |
| Operating mode | 100% operating factor |
| Mechanical service life | 2x 10 ⁷ cycles |
| Mounting position | any |
| Assembly instructions | In rows with zero spacing |

Standards and Regulations

| | |
|----------------------------------|------------|
| Connection in acc. with standard | CUL |
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| | EN 61810-1 |
| Pollution degree | 3 |
| Overvoltage category | III |

Environmental Product Compliance

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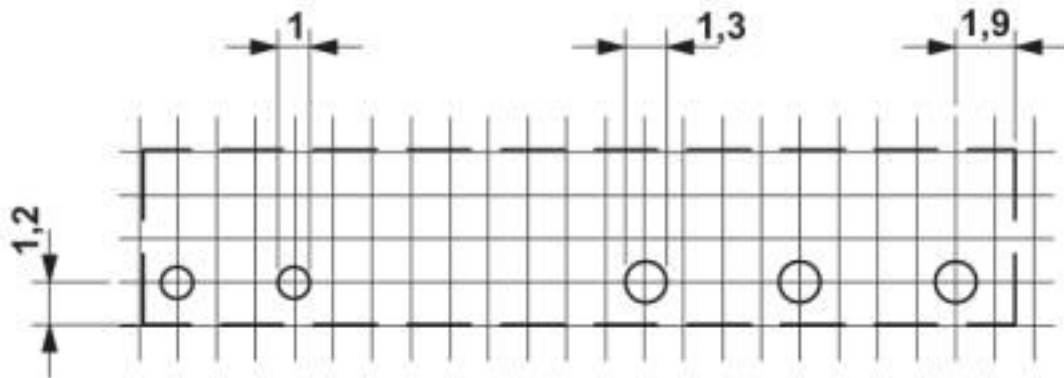
Technical data

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

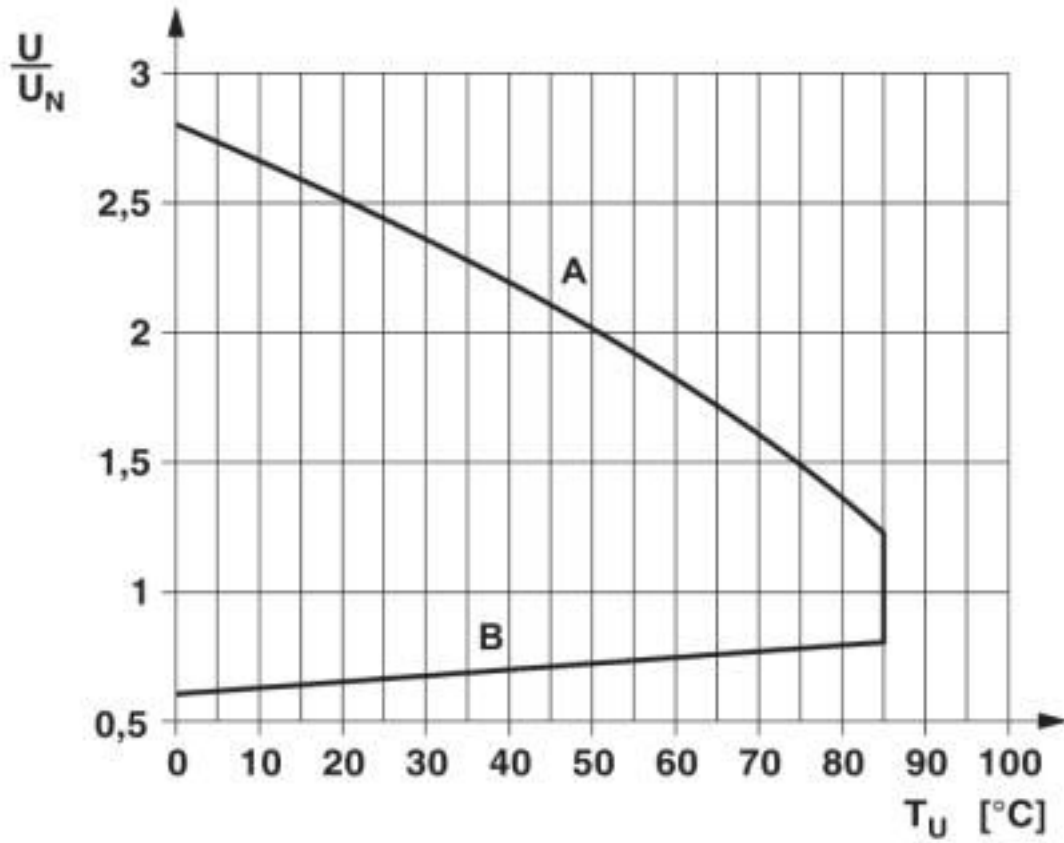
Drilling diagram



a = pitch division 1.25 mm and 1.27 mm

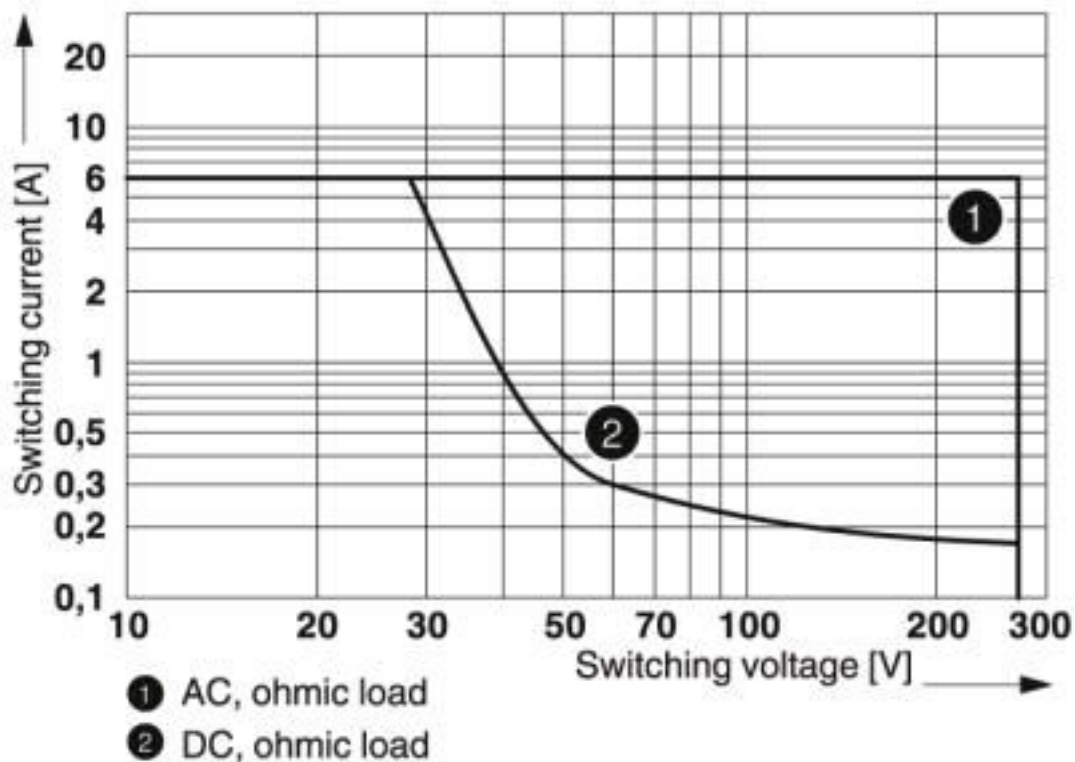
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Diagram



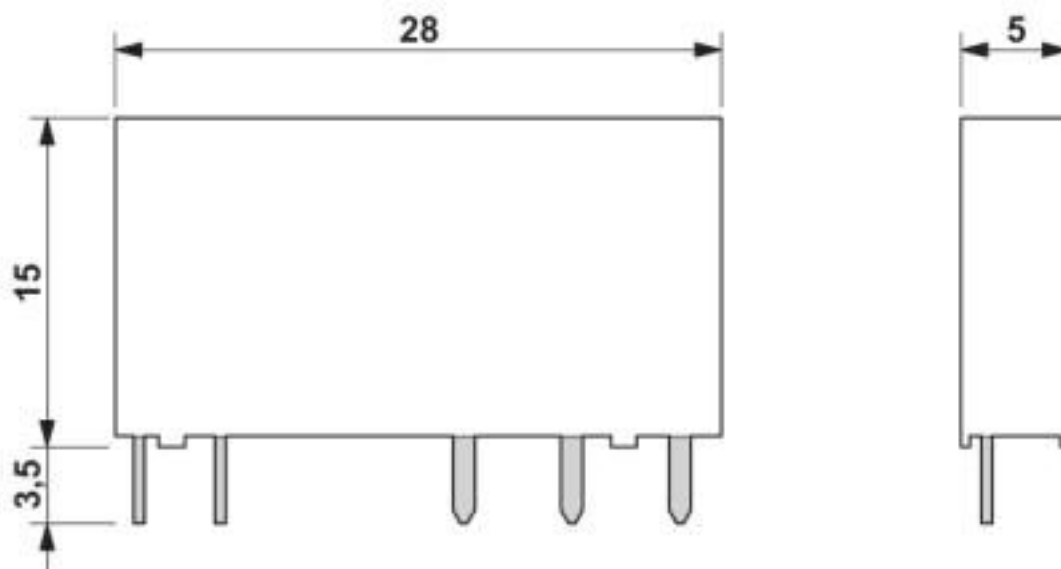
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Diagram



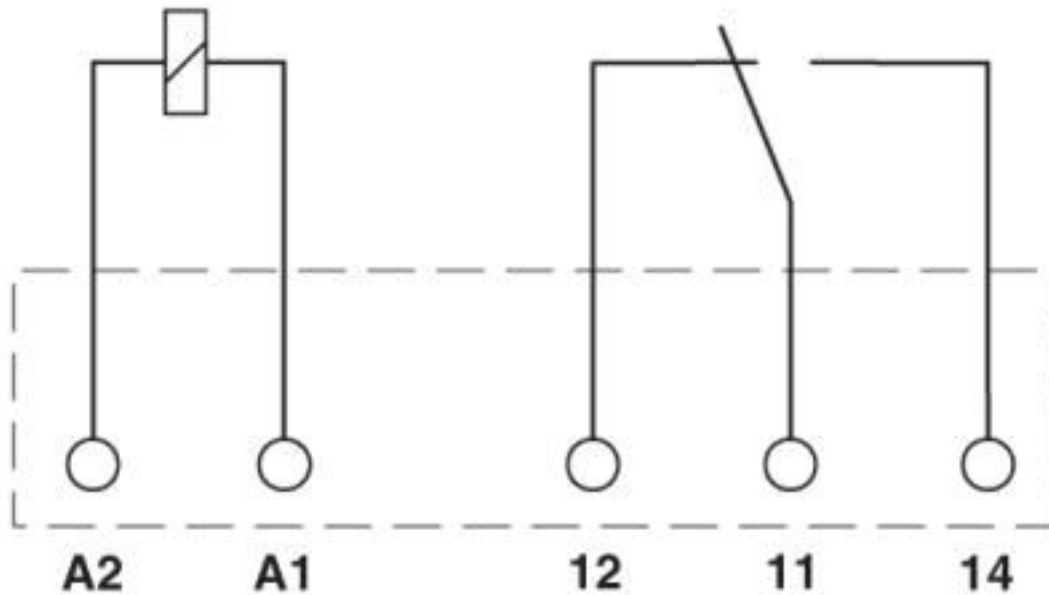
Interrupting rating

Dimensional drawing



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Circuit diagram



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27371601 |
| eCl@ss 4.0 | 27371100 |
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371600 |
| eCl@ss 5.1 | 27371600 |
| eCl@ss 6.0 | 27371600 |
| eCl@ss 7.0 | 27371601 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001437 |
| ETIM 3.0 | EC001437 |
| ETIM 4.0 | EC001437 |
| ETIM 5.0 | EC001437 |
| ETIM 6.0 | EC001437 |
| ETIM 7.0 | EC001437 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11 | 39121515 |
| UNSPSC 12.01 | 39121515 |

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Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 13.2 | 39122334 |
| UNSPSC 18.0 | 39122334 |
| UNSPSC 19.0 | 39122334 |
| UNSPSC 20.0 | 39122334 |
| UNSPSC 21.0 | 39122334 |

Approvals

Approvals

Approvals

UL Recognized / VDE Zeichengenehmigung / cUL Recognized / UL Recognized / cUL Recognized / VDE Zeichengenehmigung / EAC / EAC

Ex Approvals


Approval details

| | | | |
|------------------------|---|---|---------------|
| UL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| VDE Zeichengenehmigung |  | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40032864 |
| cUL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| UL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| cUL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| VDE Zeichengenehmigung |  | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40010212 |

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Approvals

| | | |
|-----|---|-----------------|
| EAC |  | TR_TS_D_00573_c |
|-----|---|-----------------|

| | | |
|-----|---|-------------------------|
| EAC |  | RU*C- DE.*08.B.00010 |
|-----|---|-------------------------|

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