

## Single relay - REL-MR-24DC/21HC/EX - 2908822

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Plug-in miniature power relay, with power contact for high continuous currents, 1 changeover contact, 24 V DC input voltage for use in Zone 2 applications

### Why buy this product

- ✓ Switching current of up to 16 A
- ✓ RT III-proof (wash-proof)

### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 STK   |
| Minimum order quantity               | 10 STK  |
| GTIN                                 | <br>4 055626 345161 |
| GTIN                                 | 4055626345161   |
| Weight per Piece (excluding packing) | 16.000 g  |
| Custom tariff number                 | 85364190  |
| Country of origin                    | Austria   |

### Technical data

#### Dimensions

|        |         |
|--------|---------|
| Width  | 12.7 mm |
| Height | 29 mm   |
| Depth  | 15.7 mm |

#### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

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## Technical data

### Coil side

|   |                                     |
|---|-------------------------------------|
| Nominal input voltage $U_N$             | 24 V DC                             |
| Typical input current at $U_N$          | 17 mA                               |
| Typical response time                   | 7 ms                                |
| Typical release time                    | 3 ms                                |
| Coil resistance                         | 1440 $\Omega$ $\pm$ 10 % (at 20 °C) |
| Power dissipation for nominal condition | 0.41 W                              |

### Contact side

|  |                        |
|--|------------------------|
| Contact type   | 1 PDT                  |
| Type of switch contact                                 | Single contact         |
| Contact material                                       | AgNi                   |
| Maximum switching voltage                              | 250 V AC/DC            |
| Minimum switching voltage                              | 12 V (at 10 mA)        |
| Min. switching current                                 | 10 mA (at 12 V)        |
| Maximum inrush current                                 | 50 A (20 ms)           |
| Limiting continuous current                            | 16 A                   |
| Interrupting rating (ohmic load) max.                  | 384 W (at 24 V DC)     |
|  | 58 W (at 48 V DC)      |
|  | 48 W (at 60 V DC)      |
|  | 50 W (at 110 V DC)     |
|  | 80 W (at 220 V DC)     |
|  | 4000 VA (for 250 V AC) |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13)    |
|  | 0.2 A (at 110 V, DC13) |
|  | 0.2 A (at 250 V, DC13) |
|  | 6 A (at 24 V, AC15)    |
|  | 6 A (at 120 V, AC15)   |
|  | 6 A (at 250 V, AC15)   |

### General

|  |  |
|--|--|
| Test voltage relay winding/relay contact | 5 kV AC (50 Hz, 1 min.)                                |
| Operating mode                           | 100% operating factor                                  |
| Degree of protection                     | RT III (wash-proof)                                    |
| Mechanical service life                  | 3 x 10 <sup>7</sup> cycles                             |
| Mounting position                        | any  |
| Assembly instructions                    | Can be aligned without spacing (> 70 °C $\geq$ 2.5 mm) |

### Standards and Regulations

|                       |           |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
|-----------------------|-----------|

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## Technical data

### Standards and Regulations

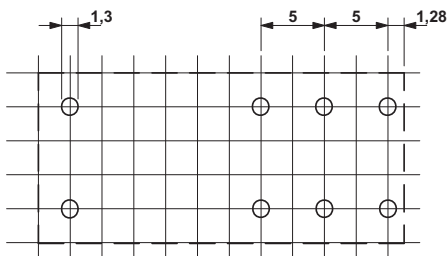
|                      |            |
|----------------------|------------|
|                      | EN 50178   |
|                      | EN 61810-1 |
| Degree of pollution  | 3          |
| Overvoltage category | III        |

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

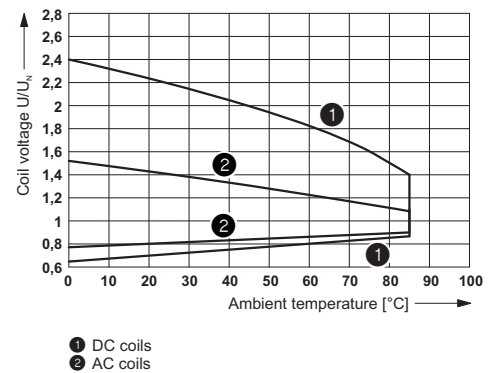
## Drawings

Drilling diagram



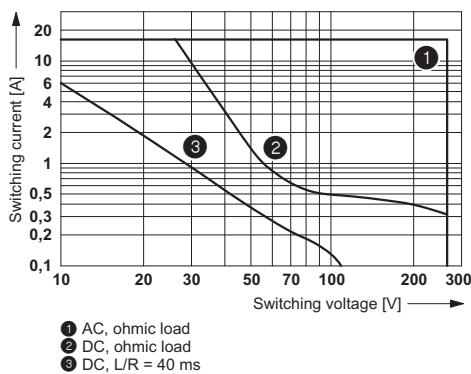
Basic pitch 2.5 mm

Diagram



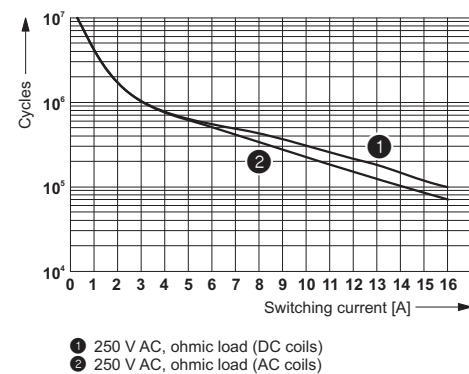
Operating voltage range

Diagram



Interrupting rating

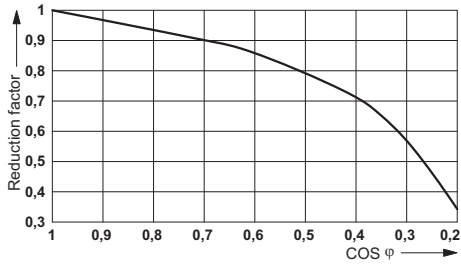
Diagram



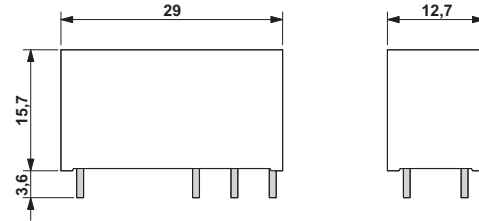
Electrical service life

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Diagram

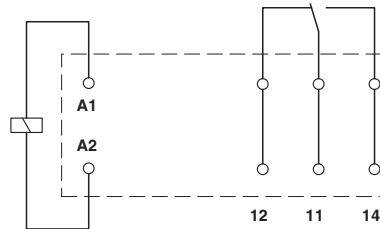


Dimensional drawing



Service life reduction factor with various cos phi

Circuit diagram



## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.0 | 27371601 |
| eCl@ss 5.1 | 27371601 |
| eCl@ss 6.0 | 27371601 |
| 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 |

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## Classifications

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 39122334 |
|-------------|----------|

## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / cULus Recognized

#### Ex Approvals

## Approval details

|               |  |   |               |
|---------------|--|---|---------------|
| UL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 228652 |
|---------------|--|---|---------------|

|                |  |   |               |
|----------------|--|---|---------------|
| cUL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 228652 |
|----------------|--|---|---------------|

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|------------------|--|---|--|
| cULus Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> |  |
|------------------|--|---|--|

## Accessories

### Additional products

Relay base - PLC-BSP- 24DC/21HC - 2912345



14 mm PLC basic terminal block for high continuous currents with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

## Single relay - REL-MR-24DC/21HC/EX - 2908822

### Accessories

Relay base - PLC-BSP- 24UC/21HC - 2912358



14 mm PLC basic terminal block for high continuous currents with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V AC/DC

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Relay base - PLC-BSP- 48DC/21HC - 2912361



14 mm PLC basic terminal block for high continuous currents with spring-cage connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 48 V DC

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Relay base - PLC-BSC- 24DC/21HC - 2967772



14 mm PLC basic terminal block for high continuous currents with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

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Relay base - PLC-BSC- 24UC/21HC - 2967785



14 mm PLC basic terminal block for high continuous currents with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V AC/DC

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Relay base - PLC-BSC- 48DC/21HC - 2967798



14 mm PLC basic terminal block for high continuous currents with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 48 V DC

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## Single relay - REL-MR-24DC/21HC/EX - 2908822

### Accessories

Relay base - PLC-BPT- 24DC/21HC - 2900254



14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

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Relay base - PLC-BPT- 24UC/21HC - 2900255



14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V AC/DC

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Relay base - PLC-BPT- 48DC/21HC - 2900256



14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 48 V DC

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Relay base - PR1-BSC2/2X21 - 2833518



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 2/2 level design, screw connections, connection facility for input/interference suppression modules

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Relay base - PR1-BSC3/2X21 - 2833521



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, screw connections, connection facility for input/interference suppression modules

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## Single relay - REL-MR-24DC/21HC/EX - 2908822

### Accessories

Relay base - PR1-BSP3/2X21 - 2833534



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, spring-cage connections, connection facility for input/interference suppression modules

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Relay base - RIF-1-BPT/2X21 - 2900931



RIF-1... relay base, for miniature power relay with 1 or 2 PDTs or solid-state relays of the same design, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

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Relay base - RIF-1-BSC/2X21 - 2900930



RIF-1... relay base, for miniature power relay with 1 or 2 changeover contacts or identical solid-state relays, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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