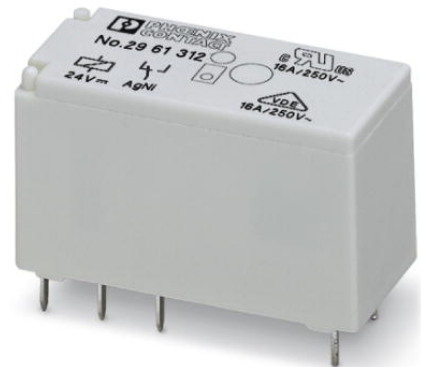


# REL-MR- 24DC/21HC

Order No.: 2961312



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2961312>

Pluggable miniature relays, with power contact for high continuous current, 1 PDT, input voltage 24 V DC

## Commercial data

|                          |                   |
|--------------------------|-------------------|
| EAN                      | 4017918187576     |
| Pack                     | 10 pcs.           |
| Customs tariff           | 85364190          |
| Weight/Piece             | 0.017 KG          |
| Catalog page information | Page 54 (IF-2009) |

## Product notes

WEEE/RoHS-compliant since:  
08/09/2006



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

## Technical data

### Coil side

|                                   |                                  |
|-----------------------------------|----------------------------------|
| Nominal input voltage $U_N$       | 24 V DC                          |
| Nominal input current at $U_{IN}$ | 17 mA                            |
| Typical response time             | 7 ms                             |
| Typical release time              | 3 ms                             |
| Coil resistance                   | 1440 $\Omega \pm 10\%$ (at 20°C) |

#### Contact side

|                                       |                        |
|---------------------------------------|------------------------|
| Contact type                          | Single contact, 1-PDT  |
| Contact material                      | AgNi                   |
| Maximum switching voltage             | 250 V AC/DC            |
| Minimum switching voltage             | 12 V AC/DC             |
| Maximum inrush current                | 30 A (300 ms)          |
| Min. switching current                | 100 mA                 |
| Limiting continuous current           | 16 A                   |
| Interrupting rating (ohmic load) max. | 384 W (for 24 V DC)    |
|                                       | 58 W (for 48 V DC)     |
|                                       | 48 W (for 60 V DC)     |
|                                       | 50 W (for 110 V DC)    |
|                                       | 80 W (for 220 V DC)    |
|                                       | 4000 VA (for 250 V AC) |

#### General data

|                                          |                                                   |
|------------------------------------------|---------------------------------------------------|
| Width                                    | 12.7 mm                                           |
| Height                                   | 15.7 mm                                           |
| Depth                                    | 29 mm                                             |
| Test voltage relay winding/relay contact | 5 kV AC (50 Hz, 1 min)                            |
| Ambient temperature (operation)          | -40 °C ... 85 °C                                  |
| Ambient temperature (storage/transport)  | -40 °C ... 85 °C                                  |
| Operating mode                           | 100% operating factor                             |
| Service life mechanical                  | 3 x 10 <sup>7</sup> cycles                        |
| Standards/regulations                    | IEC 60664                                         |
|                                          | IEC 60664 A                                       |
|                                          | DIN VDE 0110                                      |
|                                          | DIN VDE 0106-101                                  |
|                                          | DIN EN 50178/DIN VDE 0160 (in relevant parts)     |
|                                          | IEC 60255/DIN VDE 0435 (in relevant parts)        |
|                                          | EN 60730/DIN VDE 0631                             |
| Pollution degree                         | 3                                                 |
| Surge voltage category                   | III                                               |
| Mounting position                        | Any                                               |
| Assembly instructions                    | Can be aligned without spacing (> 70 °C ≥ 2.5 mm) |

## Certificates / Approvals



Certification

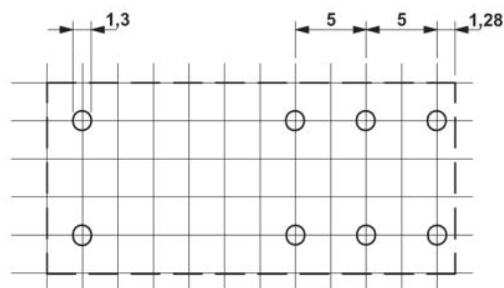
CUL, GL, GOST, UL, VDE-PZI

## Additional products

| Item           | Designation        | Description                                                                                                                                                                                                                                      |
|----------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b> |                    |                                                                                                                                                                                                                                                  |
| 2967772        | PLC-BSC- 24DC/21HC | 14 mm PLC-HC basic terminal blocks with screw connection method, input voltage 24 V DC(without relay or optocoupler)                                                                                                                             |
| 2967785        | PLC-BSC- 24UC/21HC | 14 mm PLC-HC basic terminal blocks with screw connection method, input voltage 24 V AC/DC(without relay or optocoupler)                                                                                                                          |
| 2967798        | PLC-BSC- 48DC/21HC | 14 mm PLC-HC basic terminal blocks with screw connection method, input voltage 48 V DC(without relay or optocoupler)                                                                                                                             |
| 2912345        | PLC-BSP- 24DC/21HC | 14 mm PLC basic terminal blocks with spring-cage connection method, input voltage 24 V DC(without relay or optocoupler)                                                                                                                          |
| 2912358        | PLC-BSP- 24UC/21HC | 14 mm PLC basic terminal blocks with spring-cage connection method, input voltage 24 V AC/DC(without relay or optocoupler)                                                                                                                       |
| 2912361        | PLC-BSP- 48DC/21HC | 14 mm PLC basic terminal blocks with spring-cage connection method, input voltage 48 V DC(without relay or optocoupler)                                                                                                                          |
| 2833518        | PR1-BSC2/2X21      | Relay socket 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       |
| 2833521        | PR1-BSC3/2X21      | Relay socket 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       |
| 2833534        | PR1-BSP3/2X21      | Relay socket 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 |

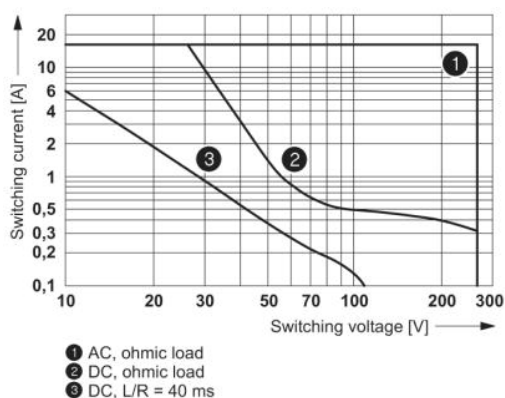
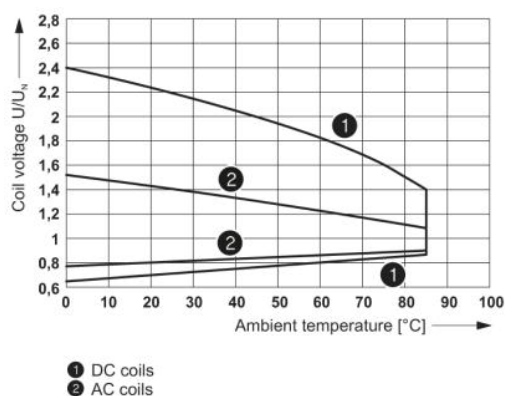
## Diagrams/Drawings

### Drilling plan/solder pad geometry

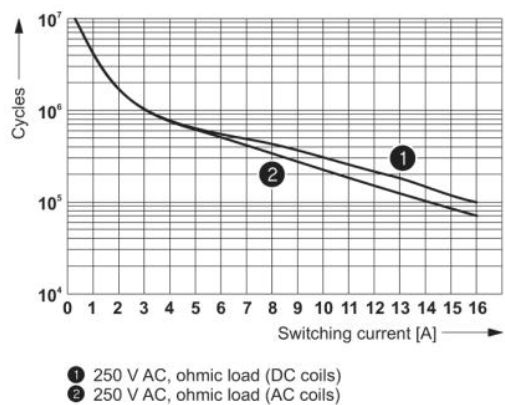


a = pitch division 2.5 mm

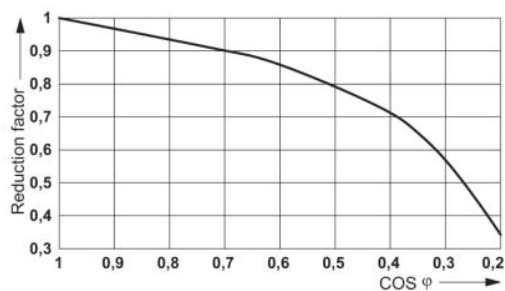
### Diagram



### Operating voltage range



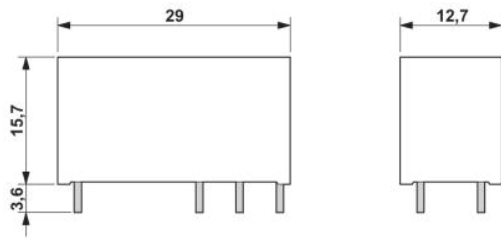
### Interrupting rating



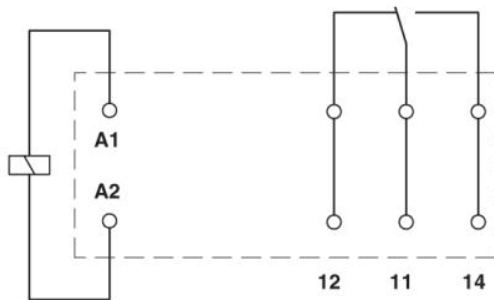
### Service life reduction factor with various cos phi

### Electrical service life

Dimensioned drawing



Circuit diagram



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