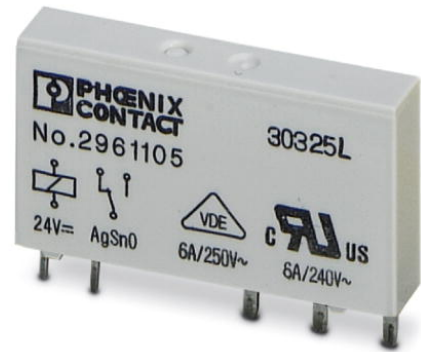


# REL-MR- 12DC/21AU

Order No.: 2961163


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



<http://eshop.phoenixcontact.co.za/phoenix/treeViewClick.do?UID=2961163>

Pluggable miniature relays, with multi-layer contact, 1 PDT, input voltage 12 V DC

## Commercial data

|                          |  |
|--------------------------|--|
| EAN                      | <br>4 017918 146870 |
| Pack                     | 10 pcs.  |
| Customs tariff           | 85364190   |
| Gross weight in pieces   | 6.58 g   |
| Catalog page information | Page 92 (IF-2009)  |

## Product notes

WEEE/RoHS-compliant since:  
23-01-2006



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 at <http://www.download.phoenixcontact.com>. The General Terms and Conditions of Use apply to Internet downloads.

## 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 |

**Coil side**

|   |                                  |
|---|----------------------------------|
| Nominal input voltage $U_N$               | 12 V DC                          |
| Input voltage range in reference to $U_N$ | (refer to the diagram)           |
| Nominal input current at $U_{IN}$         | 14 mA                            |
| Typical response time                     | 5 ms                             |
| Typical release time                      | 2.5 ms                           |
| Coil resistance                           | 848 $\Omega \pm 10\%$ (at 20 °C) |

**Contact side**

|  |  |
|--|--|
| Contact type   | Single contact, 1-PDT  |
| Contact material                                       | AgSnO, hard gold-plated  |
| Maximum switching voltage                              | 30 V AC<br>36 V DC   |
| Minimum switching voltage                              | 100 mV (at 10 mA)  |
| Maximum inrush current                                 | 50 mA  |
| Min. switching current                                 | 1 mA (at 24 V)   |
| Limiting continuous current                            | 50 mA  |
| Interrupting rating (ohmic load) max.                  | 1.2 W (at 24 V DC)   |
| Note   | <b>the following values are applicable if a gold layer is destroyed</b>  |
| 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)<br>20 W (at 48 V DC)<br>18 W (at 60 V DC)<br>23 W (at 110 V DC)<br>40 W (at 220 V DC)<br>1500 VA (for 250 V AC)             |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13)<br>0.2 A (at 110 V, DC13)<br>0.1 A (at 220 V, DC13)<br>3 A (at 24 V, AC15)<br>3 A (at 120 V, AC15)<br>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                  | 2 x 10 <sup>7</sup> cycles |
| Standards/regulations                    | IEC 60664                  |
|  | EN 50178                   |
|  | IEC 62103                  |
| Pollution degree                         | 3                          |
| Surge voltage category                   | III                        |
| Mounting position                        | Any                        |
| Assembly instructions                    | In rows with zero spacing  |

**Connection data**

|                   |                          |
|-------------------|--------------------------|
| Connection method | Plug / solder connection |
|-------------------|--------------------------|

**Certificates**



Certification

cULus Recognized, GOST, VDE Gutachten mit  
 Fertigungsüberwachung, VDE Zeichengenehmigung, GL

Certifications applied for:

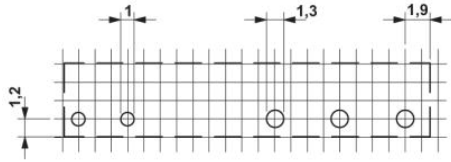
Certification Ex:

**Additional products**

| Item           | Designation      | Description  |
|----------------|------------------|--|
| <b>General</b> |                  |  |
| 2966896        | PLC-BSC- 12DC/21 | 6.2 mm PLC basic terminal blocks with screw connection, 12 V DC input voltage (without relay or optocoupler)       |
| 2967426        | PLC-BSP- 12DC/21 | 6.2 mm PLC basic terminal blocks with spring-cage connection, 12 V DC input voltage (without relay or optocoupler) |

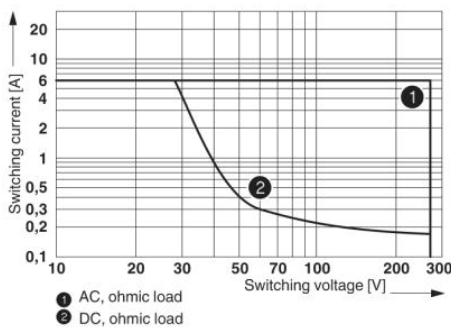
**Drawings**

Drilling plan/solder pad geometry



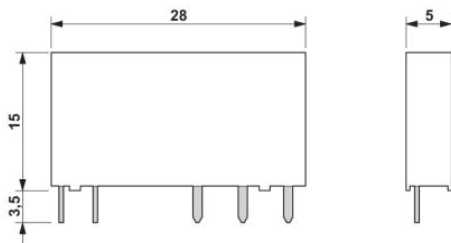
a = pitch division 1.25 mm and 1.27 mm

Diagram

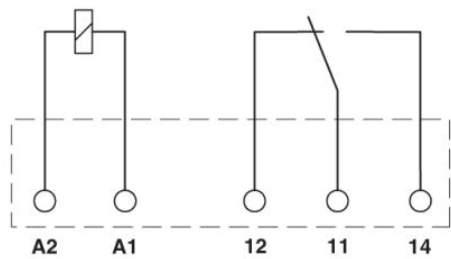


Interrupting rating

Dimensioned drawing



Circuit diagram



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