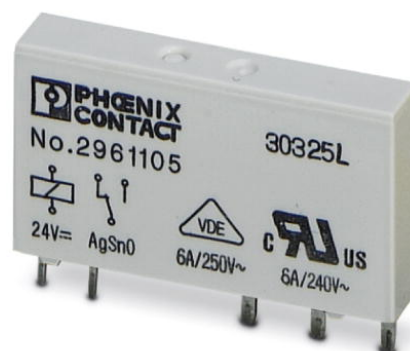


## REL-MR- 12DC/21AU

Order No.: 2961163

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



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

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

### Commercial data

|                          |                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------|
| GTIN (EAN)               | <br>4 017918 146870 |
| Note                     | Made-to-order                                                                                         |
| sales group              | G084                                                                                                  |
| Pack                     | 10 pcs.                                                                                               |
| Customs tariff           | 85364190                                                                                              |
| Catalog page information | Page 92 (IF-2009)                                                                                     |

### Product notes

WEEE/RoHS-compliant since:  
08/29/2006



[http://  
www.download.phoenixcontact.com](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 $U_N$       | 12 V DC                         |
| 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                                                                 |
|                                       | 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)                                                      |
|                                       | 20 W (for 48 V DC)                                                      |
|                                       | 18 W (for 60 V DC)                                                      |
|                                       | 23 W (for 110 V DC)                                                     |
|                                       | 40 W (for 220 V DC)                                                     |
|                                       | 1500 VA (for 250 V AC)                                                  |

#### General data

|                                          |                            |
|------------------------------------------|----------------------------|
| Width                                    | 5 mm                       |
| Height                                   | 28 mm                      |
| Depth                                    | 15 mm                      |
| Test voltage relay winding/relay contact | 4 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      |
| 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

|                    |                          |
|--------------------|--------------------------|
| Type of connection | Plug / solder connection |
|--------------------|--------------------------|

Certificates / Approvals



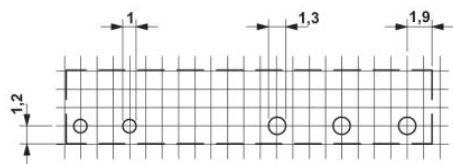
Certification CUL, GL, GOST, UL, VDE-PZI, VDE-PZI

Additional products

| Item           | Designation      | Description                                                                                                              |
|----------------|------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>General</b> |                  |                                                                                                                          |
| 2966896        | PLC-BSC- 12DC/21 | 6.2 mm PLC basic terminal blocks with screw connection method, input voltage 12 V DC(without relay or optocoupler)       |
| 2967219        | PLC-BSP- 24DC/21 | 6.2 mm PLC basic terminal blocks with spring-cage connection method, input voltage 24 V DC(without relay or optocoupler) |

Diagrams/Drawings

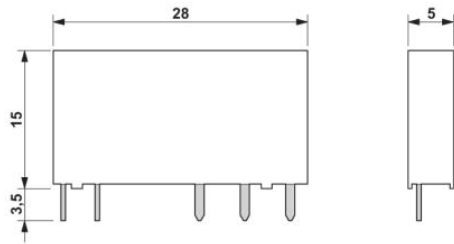
Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

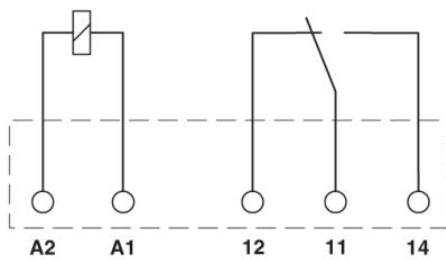
Dimensioned drawing

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Circuit diagram

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