


# REL-MR- 48DC/21-21

Order No.: 2834834



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2834834>

Plug-in miniature relay, with power contact, 2 PDT, input voltage 48 V DC

| Commercial data          |   |
|--------------------------|---|
| GTIN (EAN)               | <br>4 046356 118910 |
| Note                     | Made-to-order   |
| sales group              | G084  |
| Pack                     | 10 pcs.   |
| Customs tariff           | 85364900  |
| Catalog page information | Page 54 (IF-2009)   |

### Product notes

WEEE/RoHS-compliant since:  
04/20/2007



<http://www.download.phoenixcontact.com>  
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| Technical data                    |         |
|-----------------------------------|---------|
| <b>Coil side</b>                  |         |
| Nominal input voltage $U_N$       | 48 V DC |
| Nominal input current at $U_{IN}$ | 8.7 mA  |
| Typical response time             | 7 ms    |
| Typical release time              | 3 ms    |

|  |  |
|--|--|
| Coil resistance                          | 5520 $\Omega$ $\pm$ 10 % (at 20°C)                     |
| <b>Contact side</b>                      |  |
| Contact type                             | Single contact, 2-PDT                                  |
| Contact material                         | AgNi   |
| Maximum switching voltage                | 250 V AC/DC  |
| Minimum switching voltage                | 5 V (at 10 mA)   |
| Maximum inrush current                   | 15 A (300 ms)  |
| Min. switching current                   | 10 mA (At 5 V)   |
| Limiting continuous current              | 8 A  |
| Interrupting rating (ohmic load) max.    | 190 W (at 24 V DC)                                     |
|  | 85 W (for 48 V DC)                                     |
|  | 60 W (for 60 V DC)                                     |
|  | 40 W (for 110 V DC)                                    |
|  | 60 W (for 220 V DC)                                    |
|  | 2000 VA (for 250 V AC)                                 |
| <b>General data</b>                      |  |
| Width                                    | 12.7 mm  |
| Height                                   | 29 mm  |
| Depth                                    | 15.7 mm  |
| Test voltage relay winding/relay contact | 5 kV AC (50 Hz, 1 min.)                                |
| Test voltage relay contact/relay contact | 2.5 kV AC (50 Hz, 1 min.)                              |
| Ambient temperature (operation)          | -40 °C ... 85 °C                                       |
| Operating mode                           | 100% operating factor                                  |
| Mechanical service life                  | 3 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                    | Can be aligned without spacing (> 70 °C $\geq$ 2.5 mm) |

**Certificates / Approvals**



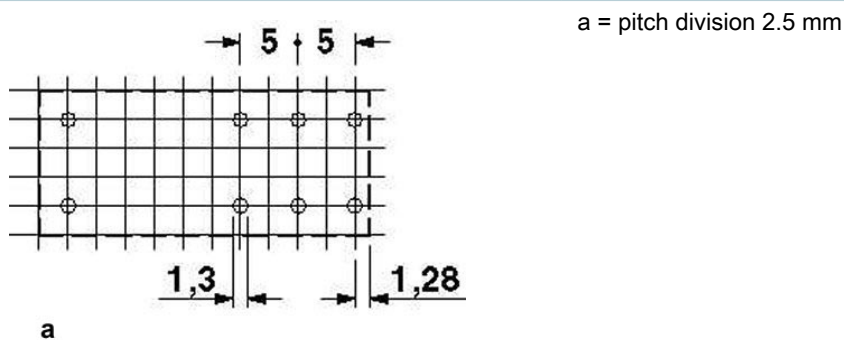
Certification CUL, UL, VDE-PZI

**Additional products**

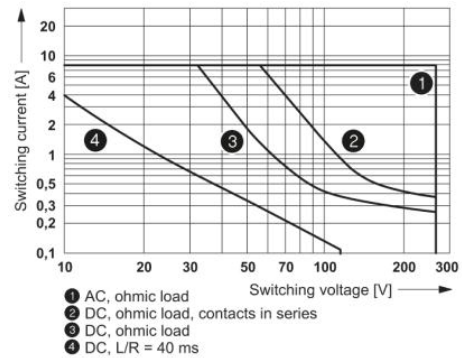
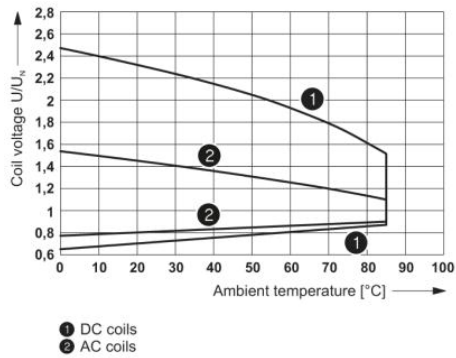
| Item           | Designation   | Description  |
|----------------|---------------|--|
| <b>General</b> |               |  |
| 2833518        | PR1-BSC2/2X21 | Relay socket PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 2/2 level 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**

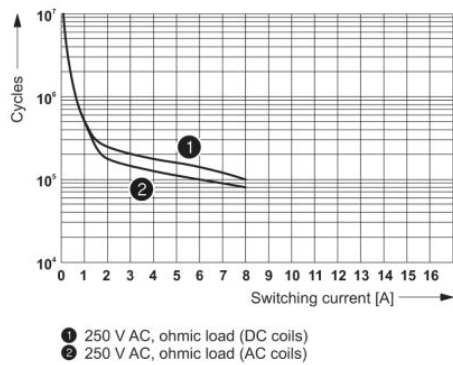
Drilling plan/solder pad geometry



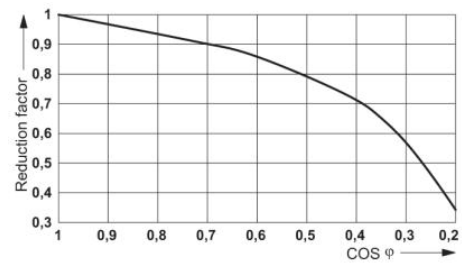
Diagram



Operating voltage range



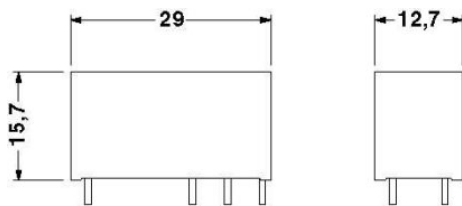
Interrupting rating



Service life reduction factor with various cos phi

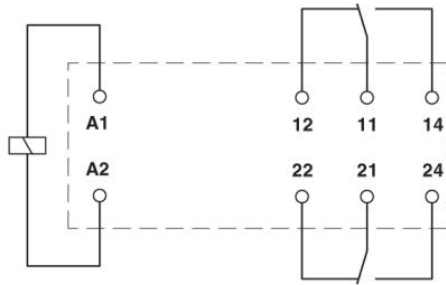
Electrical service life

Dimensioned drawing



Circuit diagram

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