

**Force Guided Relay SR2M**

- 2 pole relay with force guided contacts according to EN 50205
- Reinforced insulation between poles
- Version P1 for use in sockets

Typical applications  
Emergency shut-off, press control, machine control, elevator and escalator control, safety relays



F0188-D



**Approvals**

VDE 116064, UL E214025, TUV 968/EZ 111, CCC 2014010305743065  
Technical data of approved types on request

**Contact Data**

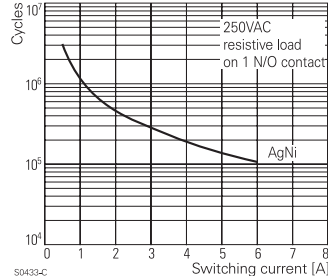
|  |   |
|--|---|
| Contact arrangement  | 1 form A + 1 form B contacts<br>(1 NO + 1 NC) or<br>2 form C contacts (2 CO)<br>According EN50205 only 1NO / 1NC (11-14 and 22-21 or 12-11 and 21-24) shall be used as force guided contacts. |
| Rated voltage  | 250VAC  |
| Max. switching voltage                                     | 400VAC  |
| Rated current  | 6A  |
| Contact material   | AgNi  |
| Contact style  | single contact, force guided<br>type A according to EN 50205<br>type B according to EN 50205  |
| Min. recommended contact load                              | 5V/10mA   |
| Initial contact resistance                                 | ≤100mΩ at 1A, 24VDC<br>≤20Ω at 10mA, 5VDC   |
| Frequency of operation, with/without load                  | 6/300min <sup>-1</sup>  |
| Contact ratings, IEC60947-5-1,<br>on 1 form A (NO) contact | AC15 - 250V/3A<br>DC13 - 24V/3A<br>on the basis of DC13 - 24V/6A<br>under conditions specified in<br>product spec. 2158001  |

**Mechanical endurance**



S0378-B

**Electrical endurance**



S0433-C

**Coil Data**

|                    |             |
|--------------------|-------------|
| Coil voltage range | 5 to 110VDC |
|--------------------|-------------|

**Coil Data (continued)**

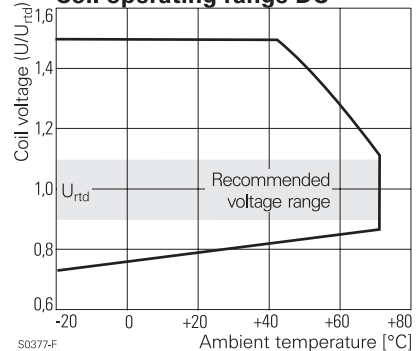
**Coil versions, DC-coil**

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% <sup>1)</sup> | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|---------------------|
| 005       | 5                 | 3.8                 | 0.5                 | 35.7                                | 700                 |
| 006       | 6                 | 4.5                 | 0.6                 | 51                                  | 706                 |
| 009       | 9                 | 6.8                 | 0.9                 | 116                                 | 698                 |
| 012       | 12                | 9                   | 1.2                 | 206                                 | 699                 |
| 015       | 15                | 11.3                | 1.5                 | 321                                 | 701                 |
| 018       | 18                | 13.5                | 1.8                 | 483                                 | 671                 |
| 021       | 21                | 16                  | 2.1                 | 630                                 | 700                 |
| 024       | 24                | 18                  | 2.4                 | 823                                 | 700                 |
| 036       | 36                | 27                  | 3.6                 | 1851                                | 700                 |
| 040       | 40                | 30                  | 4.0                 | 2286                                | 700                 |
| 048       | 48                | 36                  | 4.8                 | 3291 <sup>1)</sup>                  | 700                 |
| 060       | 60                | 45                  | 6                   | 5142 <sup>1)</sup>                  | 700                 |
| 080       | 80                | 60                  | 8                   | 9143 <sup>1)</sup>                  | 700                 |
| 110       | 110               | 83                  | 11                  | 17285 <sup>1)</sup>                 | 700                 |

<sup>1)</sup> Coil resistance ±12%.

All figures are given for coil without pre-energization, at ambient temperature +23°C.

**Coil operating range DC**



S0377-F

**Insulation**

|  |                      |
|--|----------------------|
| Initial dielectric strength                |                      |
| between open contacts                      | 1500V <sub>rms</sub> |
| between contact and coil                   | 4000V <sub>rms</sub> |
| between adjacent contacts                  | 3000V <sub>rms</sub> |
| Clearance/creepage                         |                      |
| between open contacts                      | microdisconnection   |
| between contact and coil                   | ≥8/8mm               |
| between adjacent contacts                  | ≥5.5/5.5mm           |
| Insulation to EN 50178, type of insulation |                      |
| between contact and coil                   | reinforced           |
| between adjacent contacts                  | reinforced           |

**Force Guided Relay SR2M (Continued)**

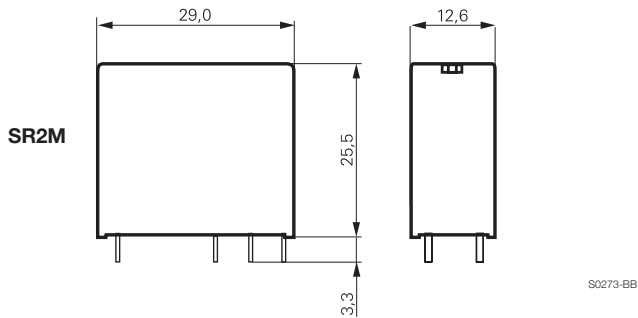
| Other Data  | SR2M           | SR2M Plug-in |
|---|----------------|--------------|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customer-support/rohssupportcenter">www.te.com/customer-support/rohssupportcenter</a> |                |              |
| Ambient temperature   |                | -40 to 70°C  |
| Category of environmental Protection  | IEC 61 810     | RTIII        |
| Weight  |                | 20g          |
| Resistance to soldering heat THT  | IEC 60068-2-20 | 260°C/5s     |
| Packaging/unit  |                | tube/20 pcs. |

For more detailed information see product specification 2158001

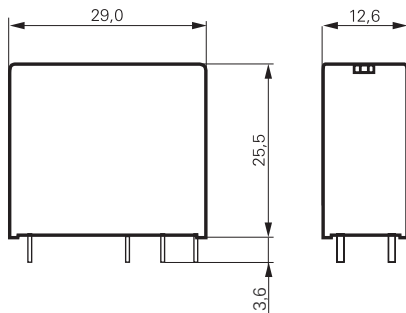
**Accessories**

For details see datasheet Accessories Force Guided Relay SR2M plugin  
NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

**Dimensions**



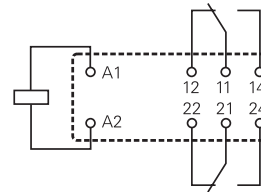
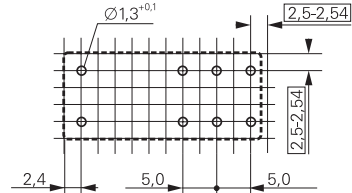
**SR2M Plug-In**



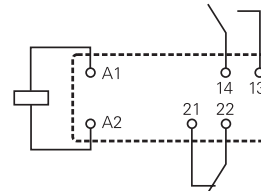
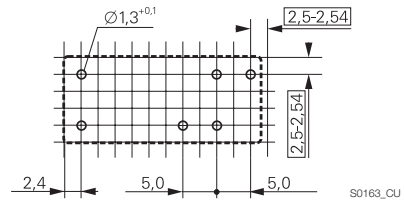
**PCB layout / terminal assignment**

Bottom view on solder pins

2 form C, 2 CO contacts



1 form A + 1 form B contacts, 1 NO + 1 NC



**Force Guided Relay SR2M** (Continued)

|                               |   |               |   |            |           |          |           |
|-------------------------------|---|---------------|---|------------|-----------|----------|-----------|
| <b>Product code structure</b> | Typical product code  | <b>V23047</b> | <b>-A1</b>  | <b>012</b> | <b>-A</b> | <b>5</b> | <b>11</b> |
| <b>Type</b>                   | <b>V23047</b> Relay with force guided contacts SR2M             |               |   |            |           |          |           |
| <b>Version</b>                | <b>A1</b> standard  |               | <b>P1</b> Plug-In                                     |            |           |          |           |
| <b>Coil</b>                   | Coil code: please refer to coil versions table (e.g. 024=24VDC) |               |   |            |           |          |           |
| <b>Contact set</b>            | <b>A</b> single contact   |               |   |            |           |          |           |
| <b>Contact material</b>       | <b>5</b> AgNi   |               |   |            |           |          |           |
| <b>Contact configuration</b>  | <b>01</b> 2 form C contacts (2 CO)                              |               | <b>11</b> 1 form A + 1 form B contacts ( 1 NO + 1 NC) |            |           |          |           |

Other types on request

| Product code      | Version                   | Cont. material | Contact arrangement      | Coil        | Part number |
|-------------------|---------------------------|----------------|--------------------------|-------------|-------------|
| V23047-A1005-A501 | Standard                  | AgNi           | 2 form C (CO)            | 5VDC        | 1393258-2   |
| V23047-A1005-A511 | wash tight                |                | 1 A + 1 B, (1 NO + 1 NC) |             | 7-1415006-1 |
| V23047-A1006-A501 |                           |                | 2 form C (CO)            | 6VDC        | 3-1415011-1 |
| V23047-A1006-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 6-1415011-1 |
| V23047-A1009-A501 |                           |                | 2 form C (CO)            | 9VDC        | 1393258-3   |
| V23047-A1009-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 7-1415011-1 |
| V23047-A1012-A501 |                           |                | 2 form C (CO)            | 12VDC       | 1393258-4   |
| V23047-A1012-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 1393258-5   |
| V23047-A1018-A501 |                           |                | 2 form C (CO)            | 18VDC       | 1393258-8   |
| V23047-A1018-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 1393258-9   |
| V23047-A1021-A501 |                           |                | 2 form C (CO)            | 21VDC       | 1-1393258-1 |
| V23047-A1021-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 1-1393258-2 |
| V23047-A1024-A501 |                           |                | 2 form C (CO)            | 24VDC       | 1-1393258-5 |
| V23047-A1024-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 1-1393258-7 |
| V23047-A1036-A501 |                           |                | 2 form C (CO)            | 36VDC       | 2-1393258-0 |
| V23047-A1036-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 8-1415011-1 |
| V23047-A1040-A501 |                           |                | 2 form C (CO)            | 40VDC       | 2-1393258-1 |
| V23047-A1040-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 2-1393258-2 |
| V23047-A1048-A501 |                           |                | 2 form C (CO)            | 48VDC       | 3-1415006-1 |
| V23047-A1048-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 9-1415011-1 |
| V23047-A1060-A511 |                           |                |                          | 60VDC       | 2-1393258-3 |
| V23047-A1110-A501 |                           |                | 2 form C (CO)            | 110VDC      | 1-1415012-1 |
| V23047-A1110-A511 |                           |                | 1 A + 1 B, (1 NO + 1 NC) |             | 2-1415012-1 |
| V23047-P1005-A501 | Plug-in<br>for socket use |                | 2 form C (CO)            | 5VDC        | 7-1415543-4 |
| V23047-P1009-A501 |                           |                | 9VDC                     | 7-1415543-5 |             |
| V23047-P1012-A501 |                           |                | 12VDC                    | 7-1415543-6 |             |
| V23047-P1021-A501 |                           |                | 21VDC                    | 7-1415543-7 |             |
| V23047-P1024-A501 |                           |                | 24VDC                    | 7-1415543-8 |             |
| V23047-P1036-A501 |                           |                | 36VDC                    | 7-1415543-9 |             |
| V23047-P1110-A501 |                           |                | 110VDC                   | 8-1415543-0 |             |

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