

## Force Guided Relay SR6 D/M

- 4 pole relay with force guided contacts according to EN 50205
- High insulation distances between electrical circuits

### Typical applications

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



F0206-ED

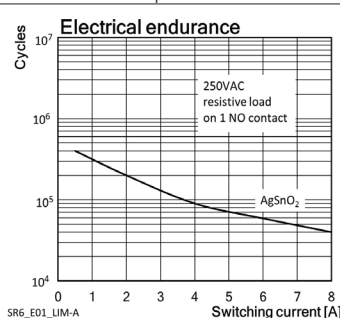
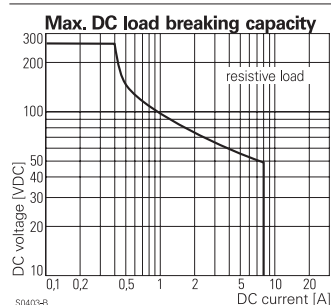


### Approvals

VDE Cert. No. 128935, UL E214025, TUV 968/EL 350  
Technical data of approved types on request.

### Contact Data

|                                                            |                                                                                             |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Contact arrangement                                        | 3 form A + 1 form B contacts<br>3 NO + 1 NC,<br>2 form A + 2 form B contacts<br>2 NO + 2 NC |
| Rated voltage                                              | 250VAC                                                                                      |
| Max. switching voltage                                     | 400VAC                                                                                      |
| Rated current                                              | 8A                                                                                          |
| Contact material                                           | AgSnO <sub>2</sub>                                                                          |
| Contact style                                              | single contact, force guided<br>type A 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                  | 6/150min <sup>-1</sup>                                                                      |
| Contact ratings, IEC60947-5-1,<br>on 1 form A (NO) contact | AC15-5A<br>DC13-6A                                                                          |
| Mechanical endurance                                       | 10x10 <sup>6</sup> operations                                                               |



### Coil data

Coil voltage range 5 to 110VDC

### 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                 | 21                                  | 1190                |
| 006       | 6                 | 4.5                 | 0.6                 | 30                                  | 1200                |
| 009       | 9                 | 6.8                 | 0.9                 | 68                                  | 1191                |
| 012       | 12                | 9                   | 1.2                 | 120                                 | 1200                |
| 018       | 18                | 13.5                | 1.8                 | 270                                 | 1200                |
| 021       | 21                | 16                  | 2.1                 | 368                                 | 1198                |

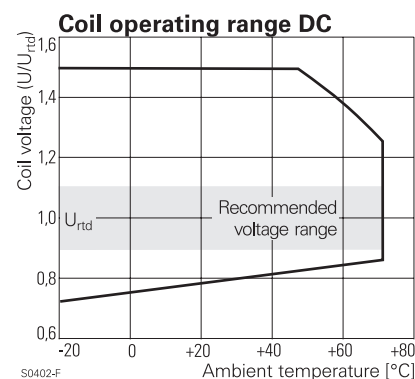
### Coil Data (continued)

#### 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 |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|---------------------|
| 024       | 24                | 18                  | 2.4                 | 480                                 | 1200                |
| 036       | 36                | 27                  | 3.6                 | 1080                                | 1200                |
| 040       | 40                | 30                  | 4.0                 | 1333                                | 1200                |
| 048       | 48                | 36                  | 4.8                 | 1920                                | 1200                |
| 060       | 60                | 45                  | 6                   | 3000 <sup>1)</sup>                  | 1200                |
| 110       | 110               | 83                  | 11                  | 10080 <sup>1)</sup>                 | 1200                |

<sup>1)</sup> Coil resistance ±12%.

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



### Insulation Data

|                                            |  |                      |
|--------------------------------------------|--|----------------------|
| Initial dielectric strength                |  | 1500V <sub>rms</sub> |
| between open contacts                      |  | 4000V <sub>rms</sub> |
| between contact and coil                   |  | 3000V <sub>rms</sub> |
| between adjacent contacts                  |  | 4000V <sub>rms</sub> |
| in longitudinal direction                  |  |                      |
| Clearance/creepage                         |  | microdisconnection   |
| between open contacts                      |  | ≥5.5/5.5mm           |
| between contact and coil                   |  | ≥5.5/5.5mm           |
| between adjacent contacts                  |  | ≥15/15mm             |
| in longitudinal direction                  |  |                      |
| Insulation to EN 50178, type of insulation |  | reinforced           |
| between contact and coil                   |  | reinforced           |
| between adjacent contacts                  |  |                      |

**Force Guided Relay SR6 D/M** (Continued)

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

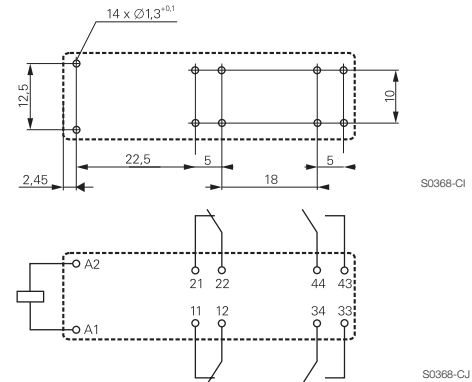
|                                      |              |
|--------------------------------------|--------------|
| Ambient temperature                  | -25 to 70°C  |
| Category of environmental Protection | RTIII        |
| IEC 61 810                           |              |
| Weight                               | 30g          |
| Resistance to soldering heat THT     |              |
| IEC 60068-2-20                       | 260°C/5s     |
| Packaging/unit                       | tube/10 pcs. |

For more detailed information see product specification 2158003

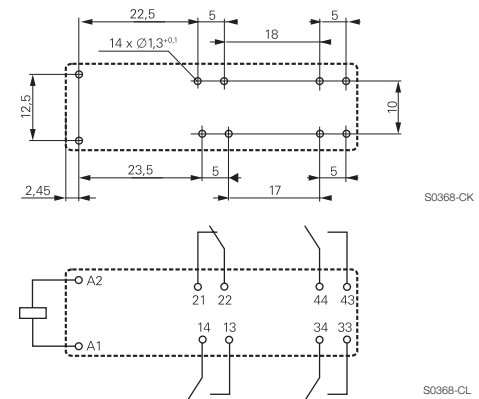
**PCB layout / terminal assignment**

Bottom view on solder pins

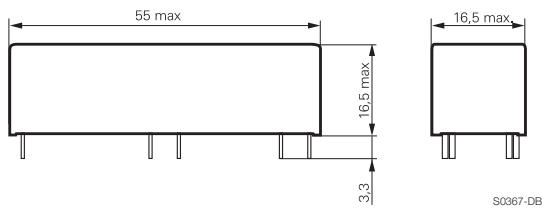
2 form A + 2 form B, 2 NO + 2 NC contacts



3 form A + 1 form B, 3 NO + 1 NC contacts



**Dimensions**



**Product code structure**

Typical product code **SR6 D 4 012**

**Type**

**SR6** Relay with force guided contacts SR6 D/M

**Contact arrangement**

**D** 2 form A + 2 form B contacts (2 NO + 2 NC)

**M** 3 form A + 1 form B contacts (3 NO + 1 NC)

**Contact material**

**4** AgSnO<sub>2</sub>

**Coil**

Coil code: please refer to coil versions table (e.g. 024=24VDC)

Other types on request.

| Product code | Type                  | Contact arrangement  | Contact material   | Coil   | Part Number |
|--------------|-----------------------|----------------------|--------------------|--------|-------------|
| SR6D4012     | 4 pole                | 2 form A + 2 form B, | AgSnO <sub>2</sub> | 12VDC  | 1415078-1   |
| SR6D4018     | relay with            | 2 NO + 2 NC          |                    | 18VDC  | 7-1415354-1 |
| SR6D4021     | force guided contacts | contacts             |                    | 21VDC  | 8-1415353-1 |
| SR6D4024     |                       |                      |                    | 24VDC  | 6-1415027-1 |
| SR6D4040     |                       |                      |                    | 40VDC  | 9-1415366-1 |
| SR6D4110     |                       |                      |                    | 110VDC | 1415062-1   |
| SR6M4006     |                       | 3 form A + 1 form B, |                    | 6VDC   | 6-1415053-1 |
| SR6M4012     |                       | 3 NO + 1 NC          |                    | 12VDC  | 7-1415353-1 |
| SR6M4018     |                       | contacts             |                    | 18VDC  | 1415354-1   |
| SR6M4021     |                       |                      |                    | 21VDC  | 6-1415353-1 |
| SR6M4024     |                       |                      |                    | 24VDC  | 3-1415353-1 |
| SR6M4110     |                       |                      |                    | 110VDC | 1-1415354-1 |