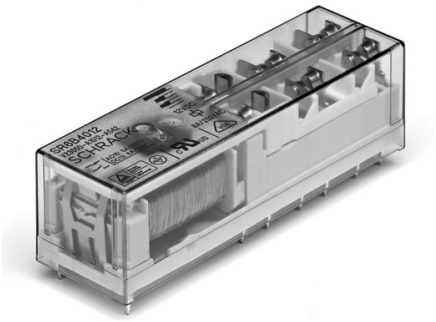
# Force Guided Relay SR6 A/B/C/V

- **6 pole relay with force guided contacts according to EN61810-3 (formerly EN50205)**
- **Reinforced insulation between all contacts**

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



F0206-EA

## Approvals

VDE Cert. No. 128935, UL E214025, TUV 968/EL 350,
CCC 2020970303000302
Technical data of approved types on request

## Contact Data

| | | |
|---|---|---|
| Contact arrangement | 3 form A + 3 form B contacts<br>3 NO + 3 NC,<br>4 form A + 2 form B contacts<br>4 NO + 2 NC,<br>5 form A + 1 form B contacts<br>5 NO + 1 NC | |
| Rated voltage | 250VAC | |
| Max. switching voltage | 400VAC | |
| Rated current | 8A | |
| Contact material | $AgSnO_2$,<br>$AgSnO_2$ + 0.2µm Au | |
| Contact style | single contact, force guided<br>type A according to EN61810-3<br>(formerly EN50205) | |
| Min. recommended contact load | 5V, 10mA | |
| Initial contact resistance | ≤100mΩ at 1A, 24VDC<br>≤20Ω at 10mA, 5VDC | |
| Frequency of operation, with/without load | $6/150min^{-1}$ | |
| **Contact ratings** | | |
| **IEC60947-5-1** | | |
| on 1 form A (NO) contact | AC15 - 250V/5A | 6.050 |
| | DC13 - 24V/6A | 6.050 |
| **UL 61810-1 (former UL 508)** | | |
| on 1 form A (NO) contact | 8A, 250VAC, 70°C | |
| | General purpose | 6.000 |
| | B00/R300 | 6.000 |
| Mechanical endurance | $10x10^6$ operations | |

## Coil Data

| | |
|---|---|
| Coil voltage range | 5 to 110VDC |
| Max. coil power | 1200mW or 800mW |

**Coil versions, DC-coil 800mW**

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|---|---|---|---|---|---|
| K12 | 12 | 9 | 1.2 | 180 | 800 |
| K15 | 15 | 11.3 | 1.5 | 281 | 801 |
| K18 | 18 | 13.5 | 1.8 | 405 | 800 |
| K21 | 21 | 16 | 2.1 | 551 | 800 |
| K24 | 24 | 18 | 2.4 | 720 | 800 |
| K36 | 36 | 27 | 3.6 | 1620 | 800 |
| K48 | 48 | 36 | 4.8 | 2880[1)] | 800 |
| L10 | 110 | 82.5 | 11.0 | 15130[1)] | 800 |

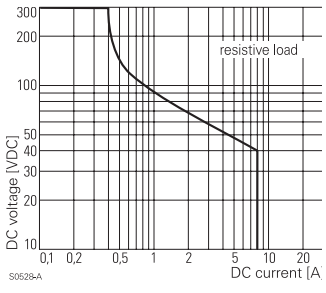
1) Coil resistance ±12%.
All figures are given for coil without pre-energization, at ambient temperature +23°C.

**Coil versions, DC-coil 1200mW**

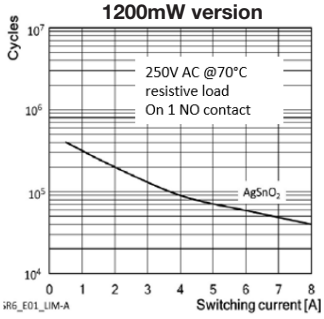
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10%[1)] | Rated coil power mW |
|---|---|---|---|---|---|
| 005 | 5 | 3.8 | 0.5 | 20.8 | 1200 |
| 006 | 6 | 4.5 | 0.6 | 30.0 | 1200 |
| 009 | 9 | 6.8 | 0.9 | 67.5 | 1200 |
| 012 | 12 | 9 | 1.2 | 120 | 1200 |
| 018 | 18 | 13.5 | 1.8 | 270 | 1200 |
| 021 | 21 | 16 | 2.1 | 368 | 1200 |
| 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 | 6.0 | 3000[1)] | 1200 |
| 110 | 110 | 83 | 11.0 | 10080[1)] | 1200 |

1) Coil resistance ±12%.
All figures are given for coil without pre-energization, at ambient temperature +23°C.

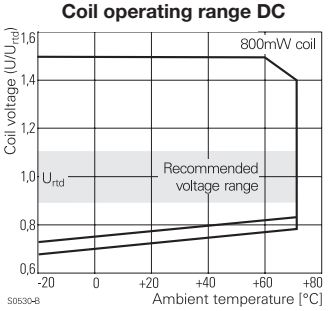
**Max. DC load breaking capacity**



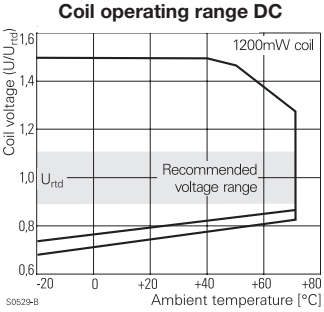

**Electrical endurance 1200mW version**




**Coil operating range DC**




**Coil operating range DC**



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Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

## Force Guided Relay SR6 A/B/C/V (Continued)

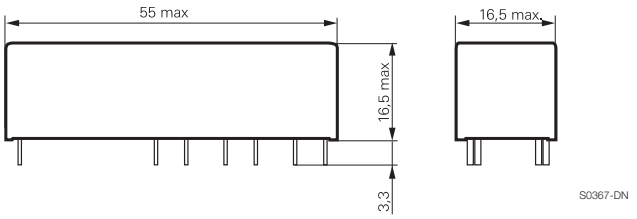
| Insulation Data | |
|---|---|
| Initial dielectric strength | |
| between open contacts | 1500$V_{rms}$ |
| between contact and coil | 4000$V_{rms}$ |
| between adjacent contacts | 3000$V_{rms}$ |
| Clearance/creepage | |
| between open contacts | microdisconnection |
| between contact and coil | ≥5.5/5.5mm |
| between adjacent contacts | ≥5.5/5.5mm |
| Insulation to IEC EN 62477 (former EN 50178), type of insulation | |
| between contact and coil | reinforced |
| between adjacent contacts | reinforced |

| 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 | |
| Ambient temperature | -25 to 70°C |
| Category of environmental Protection | |
| IEC 61 810 | RTIII[1)] |
| 1) Washing not recommended. The user is encouraged to check suitability for washing under actual conditions. | |
| Weight | 30g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 260°C/5s |
| Packaging/unit | tube/10 pcs. |

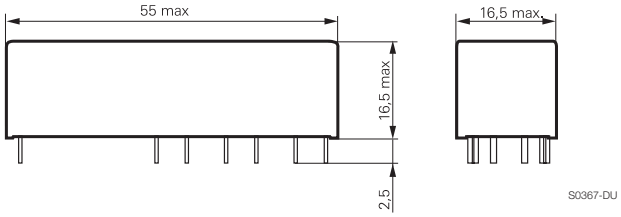
For more detailed information see product specification 2158003

### Dimensions

SR6 A/B/C



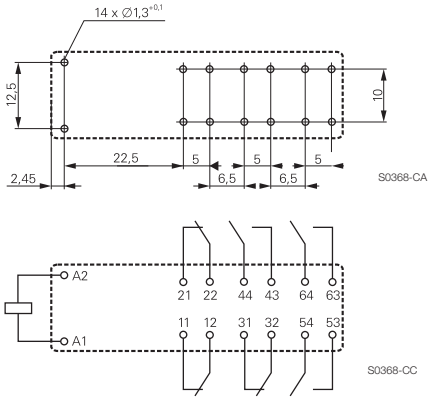

SR6 V



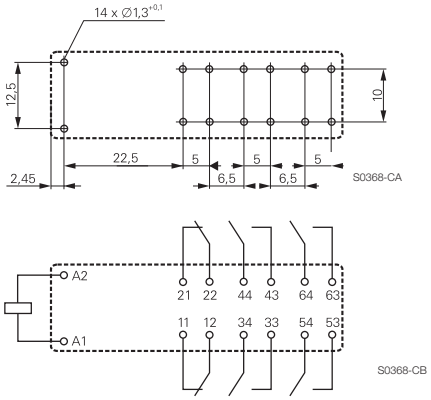

### PCB layout / terminal assignment

Bottom view

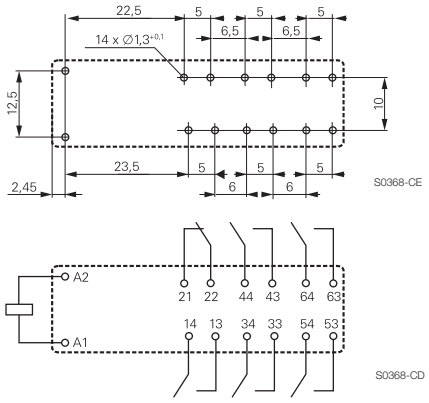
3 form A + 3 form B, 3 NO + 3 NC versions
SR6 A




4 form A + 2 form B, 4 NO + 2 NC versions
SR6 B

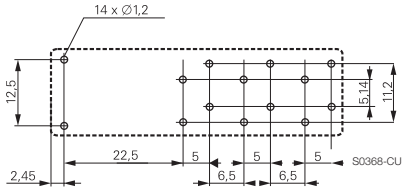


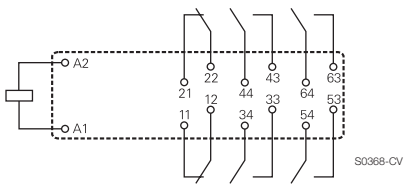

5 form A + 1 form B, 5 NO + 1 NC versions
SR6 C




4 form A + 2 form B, 4 NO + 2 NC versions
SR6 V

The design of the SR6 V allows clearance/creepage of 5.5 mm on the PCB.



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