

Force Guided Relay SR6 A/B/C/V

- 6 pole relay with force guided contacts according to EN 50205
- Reinforced insulation between all contacts

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



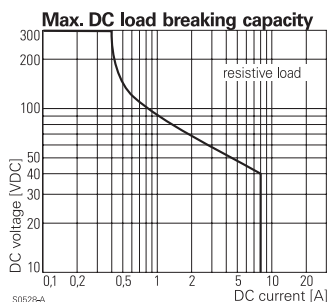
F0206-EA



Approvals
VDE Cert. No. 128935, UL E214025, TUV 968/EL 350,
CCC 2012010304537809
Technical data of approved types on request

Contact Data

| | |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Contact arrangement | 3 form A + 3 form B contacts 3 NO + 3 NC, 4 form A + 2 form B contacts 4 NO + 2 NC, 5 form A + 1 form B contacts 5 NO + 1 NC |
| Rated voltage | 250VAC |
| Max. switching voltage | 400VAC |
| Rated current | 8A |
| Contact material | AgSnO ₂ |
| Contact style | AgSnO ₂ + 0.2µm Au single contact, force guided type A according to EN 50205 |
| Min. recommended contact load | 5V, 10mA |
| Initial contact resistance | ≤100mΩ at 1A, 24VDC ≤20Ω at 10mA, 5VDC |
| Frequency of operation, with/without load | 6/150min ⁻¹ |
| Contact ratings, IEC60947-5-1, on 2 form A (NO) contact | AC15-5A DC13-6A |
| Mechanical endurance | 10x10 ⁶ operations |



Coil Data

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

Coil versions, DC-coil 800mW

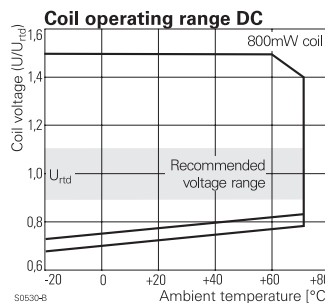
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------|----------------|
| K12 | 12 | 9 | 1.2 | 180 | 800 |
| K15 | 15 | 11.3 | 1.5 | 281 | 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 | 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 |
| 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.



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

Insulation Data

| | |
|--------------------------------------------|----------------------|
| Initial dielectric strength | |
| between open contacts | 1500V _{rms} |
| between contact and coil | 4000V _{rms} |
| between adjacent contacts | 3000V _{rms} |
| Clearance/creepage | |
| between open contacts | microdisconnection |
| between contact and coil | ≥5.5/5.5mm |
| between adjacent contacts | ≥5.5/5.5mm |
| Insulation to 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/customer-support/rohssupportcenter | |
| Ambient temperature | -25 to 70°C |
| Category of environmental Protection | IEC 61 810 |
| | RTIII ¹⁾ |
| 1) See product specification 2158003 4.6 and 4.8. | |
| 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



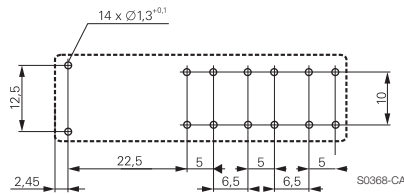
PCB layout / terminal assignment

Bottom view

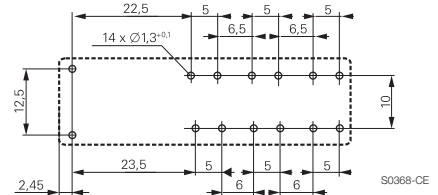
3 form A + 3 form B, 3 NO + 3 NC versions
SR6 A



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

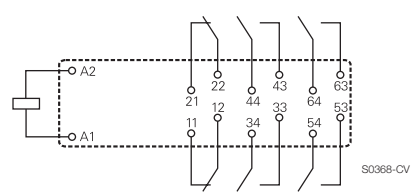
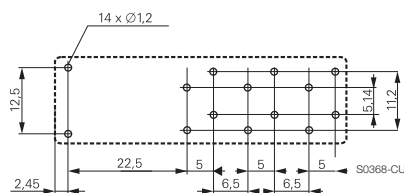


5 form A + 1 form B, 5 NO + 1 NC versions
SR6 C



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.



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

Product code structure

Typical product code **SR6 A 4 012**

Type

SR6 Relay with force guided contacts SR6

Contact arrangement

- A** 3 form A + 3 form B contacts (3 NO + 3 NC)
- B** 4 form A + 2 form B contacts (4 NO + 2 NC)
- V** 4 form A + 2 form B contacts (4 NO + 2 NC) (crossed pin layout)
- C** 5 form A + 1 form B contacts (5 NO + 1 NC)

Contact material

- 4** AgSnO₂ for 1200mW version
- 6** AgSnO₂ + 0.2µm Au for 800mW version

Coil

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

Other types on request

| Product code | Type | Cont. arrangement | Cont. material | Coil | Coil Power | Alt. Description | Part Number |
|--------------|--------------|----------------------|-------------------------|--------|------------|-------------------|-------------|
| SR6A4005 | 6 pole | 3 form A + 3 form B, | AgSnO ₂ | 5VDC | 1200mW | V23050-A1005-A533 | 8-1415017-1 |
| SR6A4012 | relay with | 3 NO + 3 NC | | 12VDC | | V23050-A1012-A533 | 1-1415015-1 |
| SR6A4021 | force guided | contacts | | 21VDC | | V23050-A1021-A533 | 3-1415018-1 |
| SR6A4024 | contacts | | | 24VDC | | V23050-A1024-A533 | 1415015-1 |
| SR6A4048 | | | | 48VDC | | V23050-A1048-A533 | 6-1415018-1 |
| SR6A4060 | | | | 60VDC | | V23050-A1060-A533 | 7-1415018-1 |
| SR6A4110 | | | | 110VDC | | V23050-A1110-A533 | 9-1415018-1 |
| SR6A6K12 | | | AgSnO ₂ + Au | 12VDC | 800mW | | 6-1415537-1 |
| SR6A6K18 | | | | 18VDC | | | 6-1415537-3 |
| SR6A6K24 | | | | 24VDC | | | 6-1415537-5 |
| SR6B4005 | | 4 form A + 2 form B, | AgSnO ₂ | 5VDC | 1200mW | V23050-A1005-A542 | 1393260-1 |
| SR6B4006 | | 4 NO + 2 NC | | 6VDC | | V23050-A1006-A542 | 1393260-2 |
| SR6B4012 | | contacts | | 12VDC | | V23050-A1012-A542 | 1393260-4 |
| SR6B4018 | | | | 18VDC | | V23050-A1018-A542 | 1393260-5 |
| SR6B4021 | | | | 21VDC | | V23050-A1021-A542 | 1393260-6 |
| SR6B4024 | | | | 24VDC | | V23050-A1024-A542 | 1393260-7 |
| SR6B4040 | | | | 40VDC | | V23050-A1040-A542 | 1393260-9 |
| SR6B4048 | | | | 48VDC | | V23050-A1048-A542 | 1-1393260-0 |
| SR6B4060 | | | | 60VDC | | V23050-A1060-A542 | 1-1393260-1 |
| SR6B4085 | | | | 85VDC | | V23050-A1085-A542 | 1-1393260-2 |
| SR6B4110 | | | | 110VDC | | V23050-A1110-A542 | 1-1393260-3 |
| SR6B6K12 | | | AgSnO ₂ + Au | 12VDC | 800mW | | 7-1415537-6 |
| SR6B6K15 | | | | 15VDC | | | 7-1415537-7 |
| SR6B6K18 | | | | 18VDC | | | 7-1415537-8 |
| SR6B6K21 | | | | 21VDC | | | 7-1415537-9 |
| SR6B6K24 | | | | 24VDC | | | 8-1415537-0 |
| SR6C4012 | | 5 form A + 1 form B, | AgSnO ₂ | 12VDC | 1200mW | V23050-A1012-A551 | 1-1415017-1 |
| SR6C4024 | | 5 NO + 1 NC | | 24VDC | | V23050-A1024-A551 | 1415017-1 |
| SR6C4048 | | contacts | | 48VDC | | V23050-A1048-A551 | 2-1415019-1 |
| SR6C4060 | | | | 60VDC | | V23050-A1060-A551 | 3-1415019-1 |
| SR6C4110 | | | | 110VDC | | V23050-A1110-A551 | 5-1415019-1 |
| SR6C6K24 | | | AgSnO ₂ + Au | 24VDC | 800mW | | 9-1415537-4 |
| SR6V6K12 | | 4 form A + 2 form B, | | 12VDC | | | 3-1415542-5 |
| SR6V6K15 | | 4 NO + 2 NC | | 15VDC | | | 2-1415543-2 |
| SR6V6K18 | | contacts | | 18VDC | | | 3-1415543-3 |
| SR6V6K21 | | (crossed pin layout) | | 21VDC | | | 4-1415542-4 |
| SR6V6K24 | | | | 24VDC | | | 5-1415539-2 |