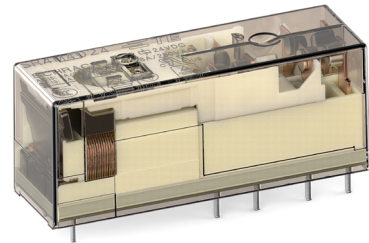


SCHRACK SR4

FORCE GUIDED RELAYS

INTRODUCTION

TE Connectivity (TE)'s SCHRACK SR4 is a compact and space efficient force guided relay for loads up to 8 A. The optimized ratio between 13 mm width and 16.5 mm height helps allow miniaturization for horizontally or vertically installed PCBs and modules. With its force guided contact set, the state of a contact can be monitored with a diagnostic coverage of 99% (IEC 61508-2) which makes the SR4 highly reliable to design safety circuits. The SR4 is produced both in Europe and China to optimally serve local customers.



FEATURES

- 4 pole contact arrangement with either 3 NO (form A) + 1 NC (form B) contact set or 2 NO (form A) + 2 NC (form B) contact set with force guided relays contacts according to IEC 61810-3 (formerly EN50205)
- Compact design and space efficient
- Height of 16.5 mm fits well in 22.5 mm DIN rail housings

APPLICATIONS

- Emergency shut-off
- Press control
- Machine control
- Elevator and escalator control
- Safety relays

APPROVALS

- VDE Cert. No. 40005334
- UL E214025
- TUV 968/EL 230
- CCC 2020970303000303/2024000303000026



SCHRACK SR4

Force Guided Relays

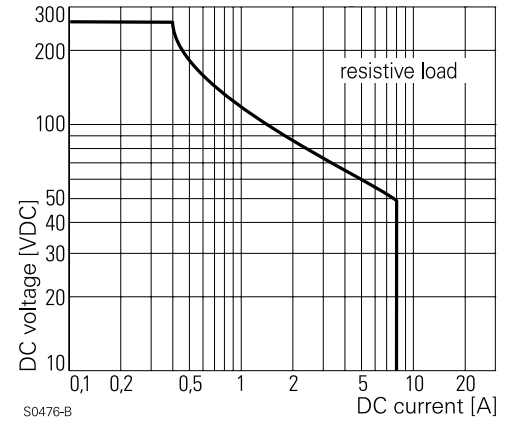
CONTACT DATA

| | |
|---|--|
| Contact arrangement | 3 form A + 1 form B contacts 3 NO + 1 NC 2 form A + 2 form B contacts 2 NO + 2 NC |
| Rated voltage | 250 VAC |
| Maximum switching voltage | 400 VAC |
| Rated current | 8 A |
| Contact material | AgSnO ₂ |
| Contact style | single contact, force guided type A according to EN61810-3 (formerly EN50205) |
| Minimum recommended contact load | 5 V/ 10 mA |
| Initial contact resistance | ≤ 100 mΩ at 1 A, 24 VDC ≤ 20 Ω at 10 mA, 5 VDC |
| Frequency of operation, with/without load | 6/150 min ⁻¹ |

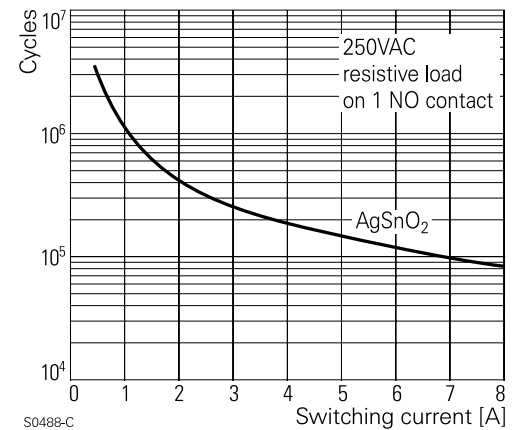
CONTACT RATINGS FOR SR4

| Type | Contact | Load | Cycles |
|--|-------------------------------|--------------------------------------|--------------------|
| IEC 61810 | | | |
| SR4 | 1xA (NO) | 8A, 250 VAC, cosφ=1, 70 °C | 20x10 ³ |
| SR4 | 1xB (NC) | 5A, 250 VAC, cosφ=1, 70 °C | |
| UL61810-1 (former UL 508) | | | |
| SR4 | A/B (NO/NC) | 8 A, 250 VAC, general purpose, 70 °C | 6,000 |
| SR4 | 1xA (1xNO) | R300, B300 | |
| SR4 | 1xB (1xNC) | R300 | |
| EN60947-5-1 | | | |
| SR4 | 1xA/1xB (1xNO/1xNC) | 3 A, 24 VDC, DC13 | 6,050 |
| SR4 | 1xA (1xNO) | 3 A, 250 VAC AC-15 | |
| More ratings and information see product specification 2158002 | | | |
| Mechanical endurance | 10x10 ⁶ operations | | |

MAX. DC LOAD BREAKING CAPACITY



TYPICAL ELECTRICAL ENDURANCE



SCHRACK SR4

Force Guided Relays

COIL DATA

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

COIL VERSIONS, DC-COIL

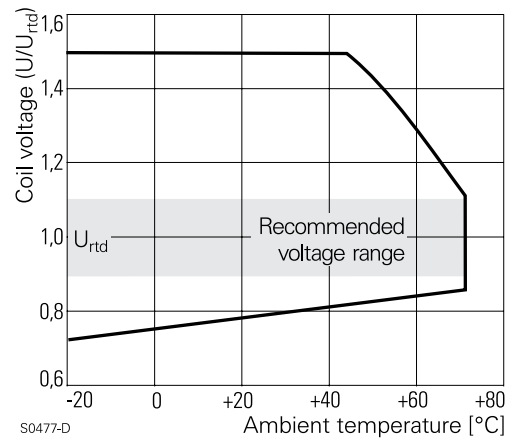
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 005 | 5 | 3.8 | 0.5 | 31 | 806 |
| 006 | 6 | 4.5 | 0.6 | 45 | 800 |
| 009 | 9 | 6.8 | 0.9 | 101 | 802 |
| 012 | 12 | 9.0 | 1.2 | 180 | 800 |
| 015 | 15 | 11.3 | 1.5 | 281 | 801 |
| 018 | 18 | 13.5 | 1.8 | 405 | 800 |
| 021 | 21 | 16.0 | 2.1 | 551 | 800 |
| 024 | 24 | 18.0 | 2.4 | 720 | 800 |
| 036 | 36 | 27.0 | 3.6 | 1620 | 800 |
| 040 | 40 | 30.0 | 4.0 | 2000 | 800 |
| 048 | 48 | 36.0 | 4.8 | 2880 | 800 |
| 060 | 60 | 45.0 | 6.0 | 4500 | 800 |
| 085 | 85 | 63.8 | 8.5 | 9031 | 800 |
| 110 | 110 | 83.0 | 11.0 | 15125 | 800 |

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

INSULATION DATA

| | |
|--|--------------------|
| Initial dielectric strength | |
| between open contacts | 1500 Vrms |
| between contact and coil | 4000 Vrms |
| between adjacent contacts | 2500 Vrms |
| Clearance/creepage | |
| between open contacts | microdisconnection |
| between contact and coil | $\geq 10/10$ mm |
| between adjacent contacts | $\geq 3/3.5$ mm |
| Insulation to EN 62477-1 (former EN 50178), type of insulation | |
| between contact and coil | reinforced |
| between adjacent contacts | basic |

COIL OPERATING RANGE DC



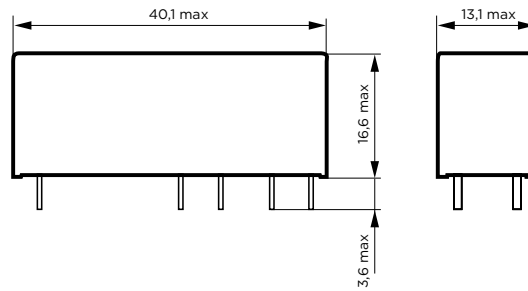
OTHER DATA

| | |
|--------------------------------------|--|
| 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 °C to +70 °C |
| Category of environmental protection | |
| IEC 61810 | RTIII |
| Weight | 16 g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 260 °C/5 s |
| Packaging/unit | |
| Czech Republic | tube/10 pcs., box/250 pcs. |
| China | tube/14 pcs., box/420 pcs. |

SCHRACK SR4

Force Guided Relays

DIMENSIONS (Unit: mm)

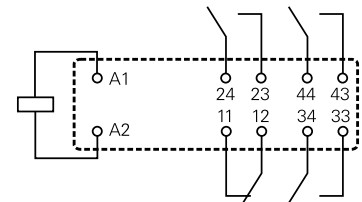
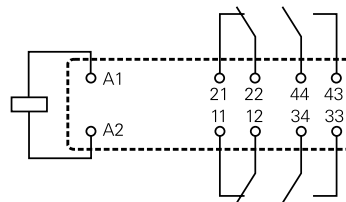
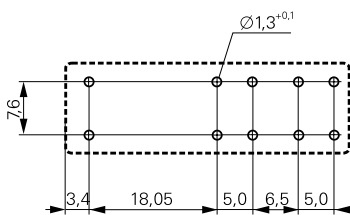


PCB LAYOUT / TERMINAL ASSIGNMENT

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



ORDERING INFORMATION

Part Number
SR4 D 4 012

Chassis size

SR4 Relay with force guided contacts SR4

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) |

Coil

Coil code: please refer to coil versions table (e.g. 012=12 VDC)

Contact material

4 AgSnO₂

Other types on request.

PRODUCT INFORMATION

| Product code | Version | Contact configuration | Contact material | Coil | Part Number | |
|--------------|---|---|--------------------|-------|-----------------------------|-------------------|
| | | | | | For Global markets *) | For AP market **) |
| SR4D4005 | 4 pole relay with force guided contacts | 2 form A + 2 form B, 2 NO + 2 NC contacts | AgSnO ₂ | 5 VDC | 7-1415054-1 | |
| SR4D4006 | | | | 6 VDC | 8-1415054-1 | |
| SR4D4009 | | | | 9 VDC | 9-1415054-1 | |

| Product code | Version | Contact configuration | Contact material | Coil | Part Number | |
|--------------|---|---|-----------------------------|---|---|-----------------------------|
| | | | | | For Global markets *) | For AP market **) |
| SR4D4012 | 4 pole relay with force guided contacts | 2 form A + 2 form B, 2 NO + 2 NC contacts | AgSnO ₂ | 12 VDC | 1415055-1 | 2071571-4 |
| SR4D4018 | | | | 18 VDC | 1-1415055-1 | 2071571-6 |
| SR4D4021 | | | | 21 VDC | 2-1415055-1 | |
| SR4D4024 | | | | 24 VDC | 3-1415055-1 | 2071571-8 |
| SR4D4036 | | | | 36 VDC | 4-1415055-1 | |
| SR4D4040 | | | | 40 VDC | 5-1415055-1 | |
| SR4D4048 | | | | 48 VDC | 6-1415055-1 | 1-2071571-1 |
| SR4D4060 | | | | 60 VDC | 7-1415055-1 | |
| SR4D4085 | | | | 85 VDC | 8-1415055-1 | |
| SR4D4110 | | | | 110 VDC | 9-1415055-1 | 1-2071571-5 |
| SR4M4005 | | | | 4 pole relay with force guided contacts | 3 form A + 1 form B, 3 NO + 1 NC contacts | AgSnO ₂ |
| SR4M4006 | 6 VDC | 6-1415053-1 | | | | |
| SR4M4009 | 9 VDC | 7-1415053-1 | | | | |
| SR4M4012 | 12 VDC | 8-1415053-1 | 5-2071571-4 | | | |
| SR4M4018 | 18 VDC | 9-1415053-1 | 5-2071571-6 | | | |
| SR4M4021 | 21 VDC | 1415054-1 | | | | |
| SR4M4024 | 24 VDC | 4-1415053-1 | 5-2071571-8 | | | |
| SR4M4036 | 36 VDC | 1-1415054-1 | | | | |
| SR4M4040 | 40 VDC | 2-1415054-1 | | | | |
| SR4M4048 | 48 VDC | 3-1415054-1 | 6-2071571-1 | | | |
| SR4M4060 | 60 VDC | 4-1415054-1 | | | | |
| SR4M4085 | 85 VDC | 5-1415054-1 | | | | |
| SR4M4110 | 110 VDC | 6-1415054-1 | 6-2071571-5 | | | |

*) Country of origin Czech Republic

**) Country of origin China

Notes:

1. Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.
2. 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>.
3. Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.
4. For general information on Force-Guided-Relays and our portfolio, please visit <http://www.te.com/fg>.
5. For more detailed product-specific-information (such as B10d values, switching times, etc) please contact our Product Information Center (<https://www.te.com/usa-en/customer-support/customer-service.html>) and ask for the product-specification.

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