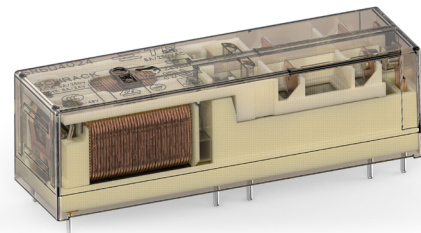


SCHRACK FORCE GUIDED RELAY SR6 D/M

FORCE GUIDED RELAYS

INTRODUCTION

TE Connectivity (TE)'s Schrack Force Guided Relay SR6 D/M is engineered for high-reliability applications, incorporating force-guided contacts in accordance with standards. It operates at a rated voltage of 250VAC with a maximum switching voltage of 400VAC, ensuring robust performance in industrial automation and safety systems. The relay features high insulation distances between electrical circuits, enhancing operational safety and reliability. Its coil voltage ranges from 5 to 110 VDC, accommodating diverse operational requirements.



FEATURES

- 4 pole relay with force guided contacts according to EN61810-3 (formerly EN50205)
- High insulation distances between electrical circuits

APPLICATIONS

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

APPROVALS

- VDE Cert. No. 128935
- UL E214025
- TÜV 968/EL 350



Technical data of approved types on request

SCHRACK Force Guided Relay SR6 D/M

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 | 250VAC |
| Max. switching voltage | 400VAC |
| Rated current | 8A |
| Contact material | AgSnO ₂ |
| Contact style | 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 |
| Mechanical endurance | 10x10 ⁶ operations |

CONTACT RATINGS

| Contact | Load | Cycles |
|--|----------------|--------|
| Contact ratings, IEC 60947-5-1 (VDE and TÜV approved) | | |
| NO (1 form A) | A15 - 250V/ 5A | 6,050 |
| NO (1 form A) | DC13 - 24V/6A | 6,050 |

COIL DATA

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

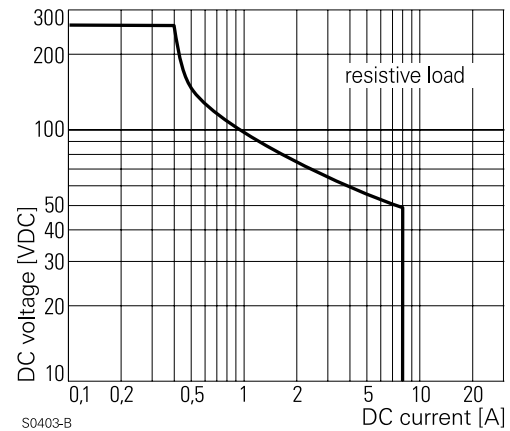
COIL VERSIONS, DC COIL

| 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 | 3000 ¹⁾ | 1200 |
| 110 | 110 | 83 | 11 | 10080 ¹⁾ | 1200 |

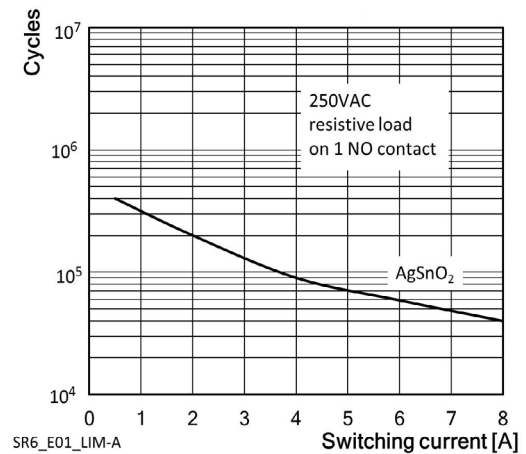
1) Coil resistance ±12%.

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

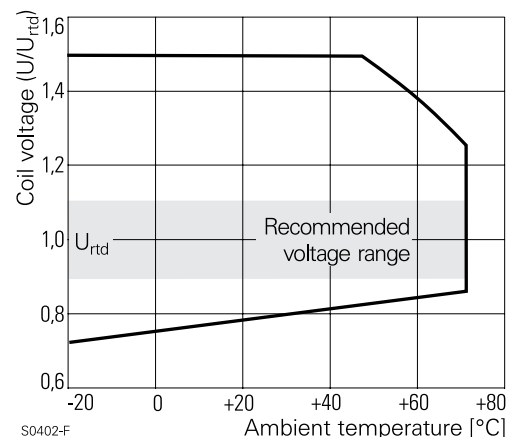
MAX. DC LOAD BREAKING CAPACITY



ELECTRICAL ENDURANCE



COIL OPERATING RANGE DC



SCHRACK Force Guided Relay SR6 D/M

Force Guided Relays

INSULATION DATA

| Initial dielectric strength | |
|-----------------------------|----------|
| between open contacts | 1500Vrms |
| between contact and coil | 4000Vrms |
| between adjacent contacts | 3000Vrms |
| in longitudinal direction | 4000Vrms |

| Clearance/creepage | |
|---------------------------|--------------------|
| between open contacts | microdisconnection |
| between contact and coil | ≥5.5/5.5mm |
| between adjacent contacts | ≥5.5/5.5mm |
| in longitudinal direction | ≥15/15mm |

| Insulation to EN 50178, type of insulation | |
|--|------------|
| between contact and coil | reinforced |
| between adjacent contacts | reinforced |

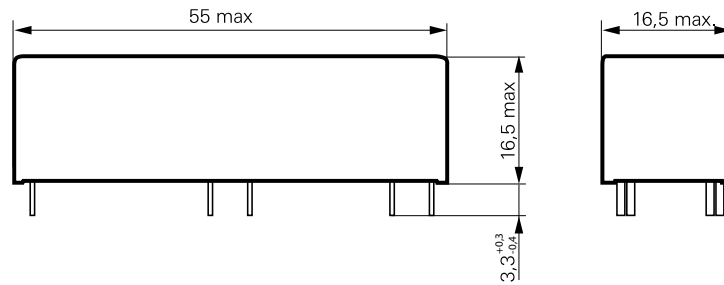
OTHER DATA

| | |
|--------------------------------------|--|
| Material compliance | EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter |
| Ambient temperature | -25 to 70°C |
| Category of environmental protection | IEC 61810 RTIII ¹⁾ |
| Weight | 30 g |
| Resistance to soldering heat THT | IEC 60068-2-20 260°C/5s |
| Packaging/unit | tube/10 pcs. |

1) Relay fulfills the standardized IEC 61810 requirements for the category of environmental protection RT III "wash tight". These standardized RT III sealing tests do not include any type of washing process. The customer shall ensure, that their soldering process, cleaning process and potentially used chemicals are not damaging the relay!

For more detailed information see product specification 2158004

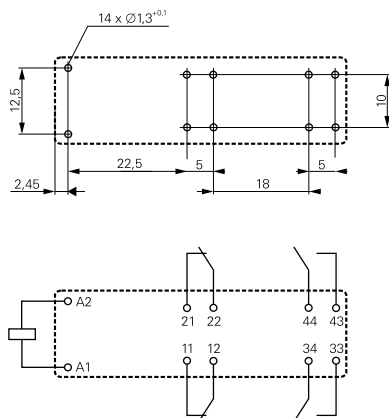
DIMENSIONS (Unit: mm)



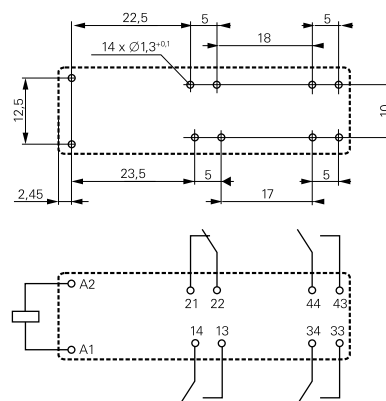
PCB LAYOUT / TERMINAL ASSIGNMENT

Bottom view on solder pins

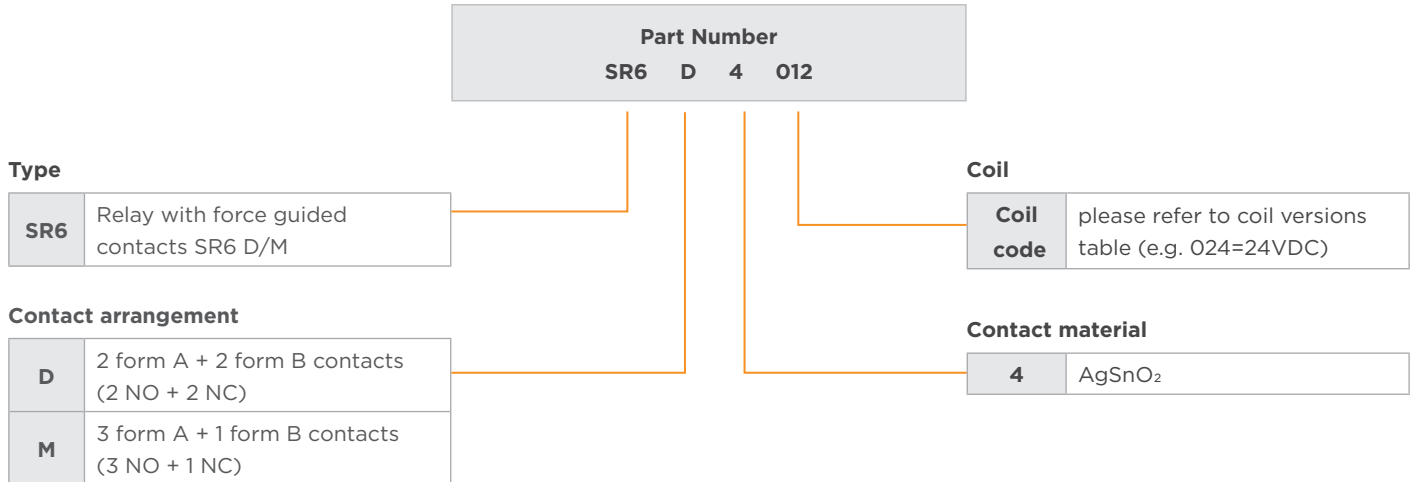
2 form A + 2 form B, 2 NO + 2 NC contacts



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



PRODUCT CODE STRUCTURE



PRODUCT INFORMATION

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

This list represents the most common type and does not show all variants covered by this datasheet. Other types on request

Notes:

- 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.
- For general information on Force-Guided-Relays and our portfolio, please visit <http://www.te.com/fg>.
- 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.

te.com

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