

Safety Relay SR6

6 pole 8 A



Features

- Forcibly guided contacts according to EN50205
- Small 6 pole safety relay with either
4 N/O+2 N/C or 3 N/O+3 N/C or 5 N/O+1 N/C contacts
- 6 kV surge resistance between poles

Applications

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

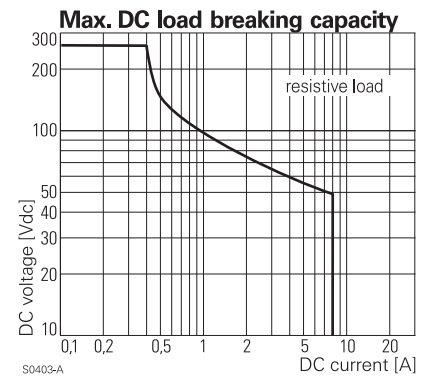
F0206-B



Technical data of approved types on request

Contact data

| | |
|--|---|
| Configuration | 3 N/O contact and 3 N/C contact or 4 N/O contact and 2 N/C contact or 5 N/O contact and 1 N/C contact |
| Type of contact | single contact, forcibly guided |
| Continuous thermal load | 8 A |
| Rated voltage / max. breaking voltage AC | 250 Vac / 440 Vac |
| Maximum breaking capacity AC | 2000 VA |
| Minimum contact load | > 50 mW |
| Contact resistance | ≤100 mΩ / 1 A / 24 Vdc ≤20 Ω / 10 mA / 5 Vdc |



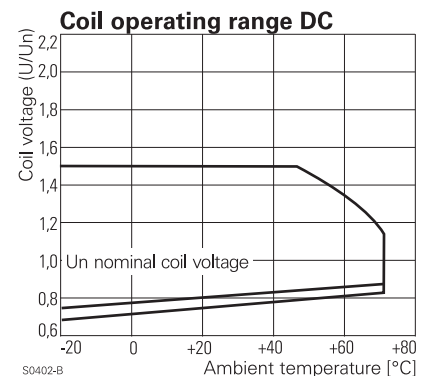
Coil data

| | |
|--------------------|------------------------|
| Nominal voltage | 5...110 Vdc |
| Nominal coil power | 1200 mW |
| Operative range | 2 |
| Max. coil voltage | 150 % U _{nom} |

Coil versions

| Coil code | Nominal voltage Vdc | Pull-in voltage Vdc | Release voltage Vdc | Maximum voltage Vdc | Coil resistance Ω | Coil current mA |
|-----------|---------------------|---------------------|---------------------|---------------------|-------------------|-----------------|
| 005 | 5 | 3.8 | 0.5 | 7.5 | 21±10% | 238.1 |
| 006 | 6 | 4.5 | 0.6 | 9.0 | 30±10% | 200.0 |
| 009 | 9 | 6.8 | 0.9 | 13.5 | 68±10% | 132.4 |
| 012 | 12 | 9.0 | 1.2 | 18.0 | 120±10% | 100.0 |
| 018 | 18 | 13.5 | 1.8 | 22.5 | 270±10% | 66.7 |
| 021 | 21 | 15.8 | 2.1 | 27.0 | 368±10% | 57.1 |
| 024 | 24 | 18.0 | 2.4 | 36.0 | 480±10% | 50.0 |
| 036 | 36 | 27.0 | 3.6 | 54.0 | 1080±10% | 33.3 |
| 040 | 40 | 30.0 | 4.0 | 60.0 | 1333±10% | 30.0 |
| 048 | 48 | 36.0 | 4.8 | 72.0 | 1920±10% | 25.0 |
| 060 | 60 | 45.0 | 6.0 | 90.0 | 3000±12% | 20.0 |
| 085 | 85 | 64.0 | 8.5 | 127.5 | 6021±12% | 14.1 |
| 110 | 110 | 82.5 | 11.0 | 165.0 | 10080±12% | 10.9 |

All figures are given for coil without preenergization, at ambient temperature +20°C
 U_{op max}: at 70 °C after preenergization with 1.1 x U_{nom} the max. operate voltage is 85% of U_{nom}. U_{max}: at 70 °C the max. coil voltage is 1.1 x U_{nom}
 Other coil voltages on request



Edition: 05/2002

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Insulation

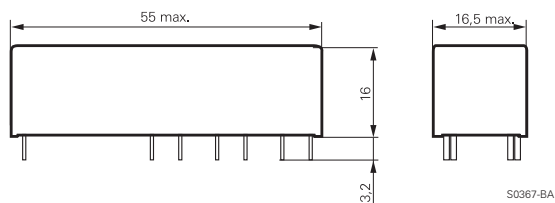
| | | |
|-----------------------------------|----------------------|-----------------------|
| Dielectric strength | coil-contacts | 3000 V _{rms} |
| | open contact circuit | 1000 V _{rms} |
| | adjacent contacts | 3000 V _{rms} |
| Clearance / creepage | coil-contact | 5.5 / 5.5 mm |
| | adjacent contacts | 5.5 / 5.5 mm |
| Insulation to IEC 60664 | | |
| | Voltage rating | 250 V |
| | Pollution degree | 2 |
| | Overvoltage category | III |
| Insulation resistance (500 Vdc) | | > 1x10 ⁶ Ω |
| Tracking resistance of relay base | | CTI 250 |

Other data

| | |
|---|---|
| Ambient temperature | -25...+70 °C |
| Mechanical life | ≥ 10x10 ⁶ operations |
| Max. switching rate at rated- / minimum load | 6 min ⁻¹ / 300 min ⁻¹ |
| Operate- / release time | typ. 11 / 3 ms |
| Vibration resistance N/O / N/C contact | > 8 / 5 g, 10...200 Hz |
| Shock resistance (function) N/O contact / N/C contact | > 8 / 6 g, 16ms half sine |
| Category of protection (IEC 61810) | RT III - wash tight |
| Relay weight | 30 g |
| Packaging unit | 10 pcs. |

Dimensions

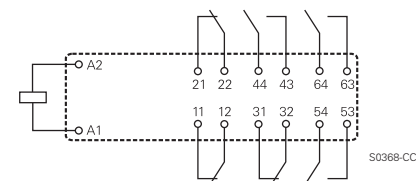
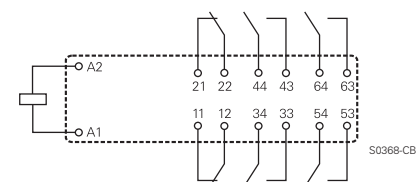
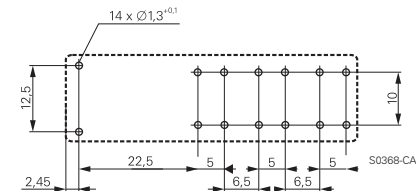
Dimensions in mm



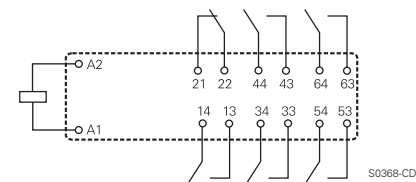
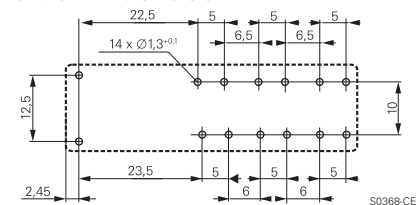
PCB layout / terminal assignment

View on solder pins
Dimensions in mm

4 N/O+2 N/C and 3 N/O+3 N/C versions



5 N/O + 1 N/C version



Product key

V 2 3 0 5 0 - A 1 - A 5

Type

Version

A1 standard

Coil

Coil code = nominal voltage (e.g. 024=24Vdc)

Contact type

A single contact

Contact material

5 AgSnO₂

Contact configuration

- 33** 3 N/O and 3 N/C contacts
- 42** 4 N/O and 2 N/C contacts
- 51** 5 N/O and 1 N/C contacts

Other types on request

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| Product key | Version | Contact material | Configuration | Coil | Part number |
|-------------------|----------|------------------|---------------|---------|-------------|
| V23050-A1005-A533 | standard | AgSnO | 3 N/O + 3 N/C | 5 Vdc | 8-1415017-1 |
| V23050-A1005-A542 | | | 4 N/O + 2 N/C | 5 Vdc | 0-1393260-1 |
| V23050-A1005-A551 | | | 5 N/O + 1 N/C | 5 Vdc | 2-1415017-1 |
| V23050-A1006-A533 | | | 3 N/O + 3 N/C | 6 Vdc | 9-1415017-1 |
| V23050-A1006-A542 | | | 4 N/O + 2 N/C | 6 Vdc | 0-1393260-2 |
| V23050-A1006-A551 | | | 5 N/O + 1 N/C | 6 Vdc | 3-1415017-1 |
| V23050-A1009-A533 | | | 3 N/O + 3 N/C | 9 Vdc | 0-1415018-1 |
| V23050-A1009-A542 | | | 4 N/O + 2 N/C | 9 Vdc | 0-1393260-3 |
| V23050-A1009-A551 | | | 5 N/O + 1 N/C | 9 Vdc | 4-1415017-1 |
| V23050-A1012-A533 | | | 3 N/O + 3 N/C | 12 Vdc | 1-1415015-1 |
| V23050-A1012-A542 | | | 4 N/O + 2 N/C | 12 Vdc | 0-1393260-4 |
| V23050-A1012-A551 | | | 5 N/O + 1 N/C | 12 Vdc | 1-1415017-1 |
| V23050-A1015-A533 | | | 3 N/O + 3 N/C | 15 Vdc | 1-1415018-1 |
| V23050-A1015-A542 | | | 4 N/O + 2 N/C | 15 Vdc | 6-1415014-1 |
| V23050-A1015-A551 | | | 5 N/O + 1 N/C | 15 Vdc | 5-1415017-1 |
| V23050-A1018-A533 | | | 3 N/O + 3 N/C | 18 Vdc | 2-1415018-1 |
| V23050-A1018-A542 | | | 4 N/O + 2 N/C | 18 Vdc | 0-1393260-5 |
| V23050-A1018-A551 | | | 5 N/O + 1 N/C | 18 Vdc | 6-1415017-1 |
| V23050-A1021-A533 | | | 3 N/O + 3 N/C | 21 Vdc | 3-1415018-1 |
| V23050-A1021-A542 | | | 4 N/O + 2 N/C | 21 Vdc | 0-1393260-6 |
| V23050-A1021-A551 | | | 5 N/O + 1 N/C | 21 Vdc | 7-1415017-1 |
| V23050-A1024-A533 | | | 3 N/O + 3 N/C | 24 Vdc | 0-1415015-1 |
| V23050-A1024-A542 | | | 4 N/O + 2 N/C | 24 Vdc | 0-1393260-7 |
| V23050-A1024-A551 | | | 5 N/O + 1 N/C | 24 Vdc | 0-1415017-1 |
| V23050-A1036-A533 | | | 3 N/O + 3 N/C | 36 Vdc | 4-1415018-1 |
| V23050-A1036-A542 | | | 4 N/O + 2 N/C | 36 Vdc | 0-1393260-8 |
| V23050-A1036-A551 | | | 5 N/O + 1 N/C | 36 Vdc | 0-1415019-1 |
| V23050-A1040-A533 | | | 3 N/O + 3 N/C | 40 Vdc | 5-1415018-1 |
| V23050-A1040-A542 | | | 4 N/O + 2 N/C | 40 Vdc | 0-1393260-9 |
| V23050-A1040-A551 | | | 5 N/O + 1 N/C | 40 Vdc | 1-1415019-1 |
| V23050-A1048-A533 | | | 3 N/O + 3 N/C | 48 Vdc | 6-1415018-1 |
| V23050-A1048-A542 | | | 4 N/O + 2 N/C | 48 Vdc | 1-1393260-0 |
| V23050-A1048-A551 | | | 5 N/O + 1 N/C | 48 Vdc | 2-1415019-1 |
| V23050-A1060-A533 | | | 3 N/O + 3 N/C | 60 Vdc | 7-1415018-1 |
| V23050-A1060-A542 | | | 4 N/O + 2 N/C | 60 Vdc | 1-1393260-1 |
| V23050-A1060-A551 | | | 5 N/O + 1 N/C | 60 Vdc | 3-1415019-1 |
| V23050-A1085-A533 | | | 3 N/O + 3 N/C | 85 Vdc | 8-1415018-1 |
| V23050-A1085-A542 | | | 4 N/O + 2 N/C | 85 Vdc | 1-1393260-2 |
| V23050-A1085-A551 | | | 5 N/O + 1 N/C | 85 Vdc | 4-1415019-1 |
| V23050-A1110-A533 | | | 3 N/O + 3 N/C | 110 Vdc | 9-1415018-1 |
| V23050-A1110-A542 | | | 4 N/O + 2 N/C | 110 Vdc | 1-1393260-3 |
| V23050-A1110-A551 | | | 5 N/O + 1 N/C | 110 Vdc | 5-1415019-1 |