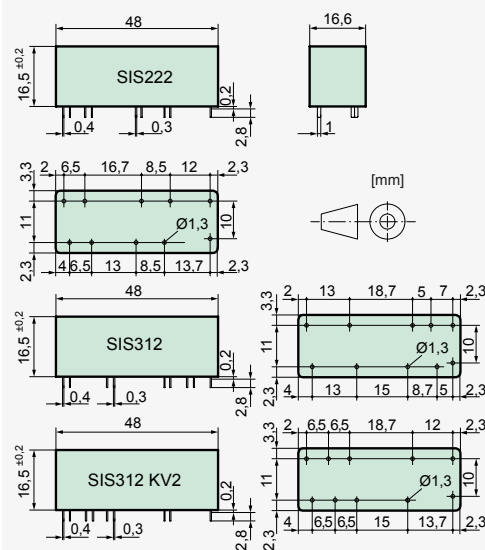




Relay Key Data

- PCB relay with forcibly guided contacts
- Protective separation between control and load circuit (leakage and creepage distances > 8 mm)
- IEC 61810-3 Type A
- Double and reinforced insulation between the contacts
- Contact mounting: SIS312 3 NO / 1 NC
SIS222 2 NO / 2 NC
- Small external dimensions
- Nominal coil power 0,33 W
- Holding coil power 0,08 W
- Coil for railway application according EN 50 155 on request

Dimensions



Contact Data

| | |
|-----------------------------------|-----------------------------------|
| Contact material | AgCuNi +0,2-0,4 µm Au |
| Type of contact | Single contact with notched crown |
| Rated switching capacity | 250 VAC 6 A AC1 1500 VA |
| Electr. Life AC1 (360 S / h) | >90000 |
| Inrush current max. | 30 A for 20 ms |
| Switching voltage range | 5 to 250 VDC / VAC |
| Switching current range* | 3 mA to 6 A |
| Switching capacity range* | 40 mW to 1500 W(VA) |
| Contact resistance (as delivered) | ≤100 mΩ / 6 V / 100 mA |

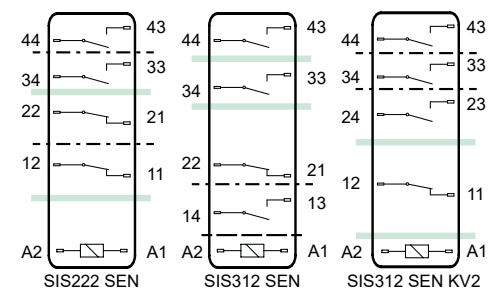
*Guided values

Standard Coils for Direct Current

(other voltages on request)

| Nominal voltage VDC | Min. pick-up voltage VDC at 20 °C | Drop-out voltage VDC at 20 °C | Nominal current in mA at 20 °C | Resistance in Ohm at 20 °C |
|---------------------|-----------------------------------|-------------------------------|--------------------------------|----------------------------|
| 3,0 | 2,3 | 0,3 | 111,0 | 27 ± 10% |
| 3,3 | 2,5 | 0,3 | 100,0 | 33 ± 10% |
| 4,5 | 3,4 | 0,5 | 73,7 | 61 ± 10% |
| 5,0 | 3,8 | 0,5 | 66,6 | 75 ± 10% |
| 6,0 | 4,5 | 0,6 | 55,5 | 108 ± 10% |
| 12,0 | 9,0 | 1,2 | 27,9 | 430 ± 10% |
| 24,0 | 18,0 | 2,4 | 13,8 | 1730 ± 10% |
| 60,0 | 45,0 | 6,0 | 5,5 | 10800 ± 10% |

Circuit Diagram (relay top view)



Insulation Data

| | |
|-------------------------------------|------------------------|
| - Basic insulation | at 250 VAC |
| - Air and creepage distance | >4 mm |
| - Test voltage | 2500 V / 50 Hz / 1 min |
| - Double or reinforced insulation | at 250 VAC |
| - Air and creepage distance | >5,5 mm |
| - Test voltage | 4000 V / 50 Hz / 1 min |
| - Double or reinforced insulation | at 250 VAC |
| - Air and creepage distance | >8 mm |
| - Test voltage | 4000 V / 50 Hz / 1 min |
| Test voltage contact open | 1500 V / 50 Hz / 1 min |
| Creepage resistance | CTI 175 |
| Pollution degree | 2 |
| Overvoltage category | III |
| Insulation resistance at Up 500 VDC | >100 MΩ |

Additional Data

| | |
|-----------------------------------------|------------------------------------|
| Mechanical endurance | >10 x 10 ⁶ operations |
| Switching frequency, mechanical | 15 Hz |
| Response time (all NO closed) | typically 20 ms |
| Drop-out time** (NC closed) | typically 4 ms |
| Bounce time of NO contact | typically 2 ms |
| Bounce time of NC contact | typically 15 ms |
| Shock resistance 16 ms | NO > 10g NC > 10g |
| Vibration resistance (10-200 Hz) | NO > 10g NC > 4g |
| Resistance to short circuiting contacts | 1000 A SCPD 6 A gG / gL (pre-fuse) |
| Ambient temperature | -40°C to +85°C |
| Thermal Resistance | 45 K / W |
| Temperature limit for coil | 120°C |
| Weight | approx. 30 g |
| Mounting position | any |
| Mounting distance | rec. >1 mm |
| Test method | A / group assembly |
| Type of protection | RT III |
| Solder bath temperature | 270°C / 5 s |

**without spark suppression

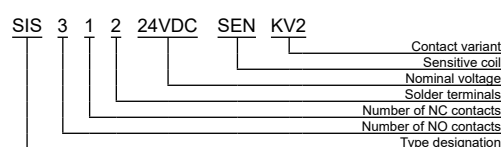
Tests, Regulations, Standards

| | |
|------------------------------------|------------------------|
| Approvals | UL File E188953 Sec. 5 |
| Insulation class IEC 60664-1 | 250 VAC |
| Fire protection requirements | UL 94 / V0 |
| Standards IEC 61810-1, IEC 61810-3 | |

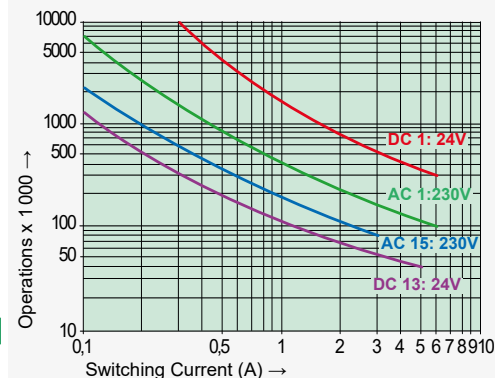
Options, Accessories

none available

Product Key



Contact Lifetime for NO Contacts



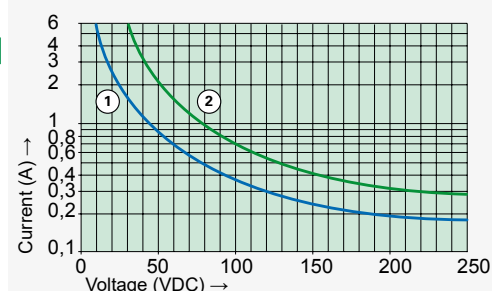
Maximal switching characteristics (EN60947-5-1)

| | |
|---------|---------------------|
| AC 1: | 250 V / 6 A |
| AC 15: | 230 V / 3 A |
| DC 1: | 24 V / 6 A |
| DC 13: | 24 V / 5 A / 0,1 Hz |
| UL 508: | B300 / R300 |

Maximal contact load at AC 1 with 230 V:

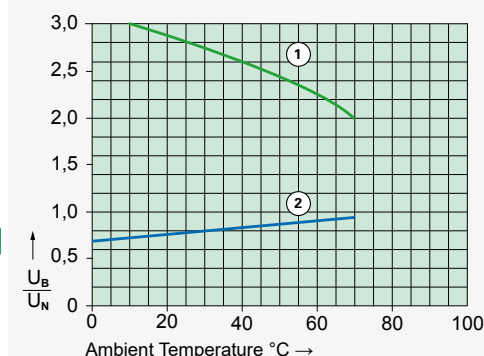
- 2 contacts with 6 A each
- 3 contacts with 4 A each

Load Limit Curve with Direct Current



- 1) Inductive load L/R 40 ms
- 2) Resistive load

Excitation Voltage Range



- 1) Max. excitation voltage with contact load: ≤4 A
- 2) Min. excitation voltage (guaranteed values) without previous operation

Single relay on print, no heat accumulation due to surrounding components with self-heating, duty cycle 100%.