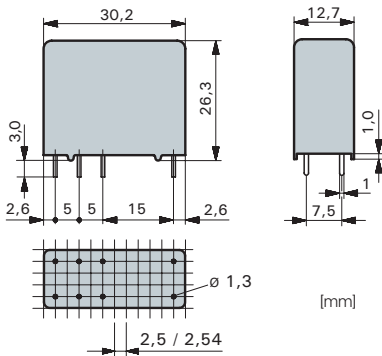




Relay data

- PCB relay with forcibly guided contacts
- Protective separation between coil and contacts (leakage and creepage distances > 14mm); protective separation diagonally between left and right contact side (leakage and creeping distances > 5.5mm)
- EN 50205, type B
- 2 CO contacts
- Mean coil power 0.7W
- Holding power 0.21 W



| | |
|-----------------------------------|------------------------------|
| Contact material | AgSnO ₂ +0.2μm Au |
| Type of contact | Single contact |
| Rated switching capacity | 250VAC 8A AC1 2'000VA |
| Electr. life AC1 (360 cycles/h) | approx. 100'000 |
| Inrush current max. | 15A for 20ms |
| Switching voltage range | 5 to 250 VDC/VAC |
| Switching current range* | 10mA to 8A |
| Switching capacity range* | 0.12VA(W) to 2'000VA |
| Contact resistance (as delivered) | ≤100mΩ/28 V/100mA |

* Guide values

Standard coils for direct current (other voltages on request)

| Nominal voltage VDC | Min. pick-up voltage at 20°C | Drop-out voltage at 20°C | Nominal current in mA | Resistance in Ohm at 20°C | Tolerance in % |
|---------------------|------------------------------|--------------------------|-----------------------|---------------------------|----------------|
| 5 | 3,75 | ≥ 0,5 | 144,0 | 34,7 | ± 10 |
| 6 | 4,5 | ≥ 0,6 | 120,0 | 50 | ± 10 |
| 12 | 9,0 | ≥ 1,2 | 60,0 | 200 | ± 10 |
| 18 | 13,5 | ≥ 1,8 | 40,0 | 450 | ± 10 |
| 24 | 18,0 | ≥ 2,4 | 30,0 | 800 | ± 10 |
| 48 | 36,0 | ≥ 4,8 | 15,0 | 3'200 | ± 10 |
| 60 | 45,0 | ≥ 6,0 | 12,0 | 5'000 | ± 13 |
| 110 | 82,5 | ≥ 11,0 | 6,5 | 16'800 | ± 15 |

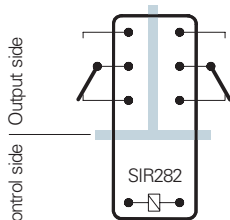
Ordering example

SIR282 24VDC Sen AgSnO₂ ZGR08

- Type designation
- Coil voltage
- sensitive coil
- Contact material
- Wash-resistant / with O-ring

General data

Circuit diagram (view on relay upper side)



Double or reinforced insulation

| | |
|--------------------------------------|-----------------------------------|
| Mechanical life | > 50 x 10 ⁶ operations |
| Switching frequency, mechanical | 20Hz |
| Response time | typically 12ms |
| Drop-out time** | typically 5ms |
| Bounce time of NO contact | typically 4ms |
| Bounce time of NC contact | typically 8ms |
| Vibration resistance | 10-55Hz, AK 10g, RK 1.5g |
| Test voltage coil/contacts | 5'000Veff 1min |
| Test voltage contact set/contact set | 4'000Veff 1min |
| Test voltage contact open | 1'500Veff 1min |
| Insulation resistance | 10 ¹¹ Ω |
| Creepage resistance | CTI 550 |
| Weight | approx. 20g |
| Mounting position | any |
| Ambient temperature | -40°C to +70°C |
| Type of protection | RT II / RT III optionally |
| Solder bath temperature | 270°C/5s |
| Thermal resistance | 50K/W |
| Temperature limit for coil | 120°C |

** without spark suppression

Insulation terms

Coil/contacts: Double or reinforced insulation > 14mm
Left to right contact side:
Double or reinforced insulation > 5.5mm

Tests, regulations

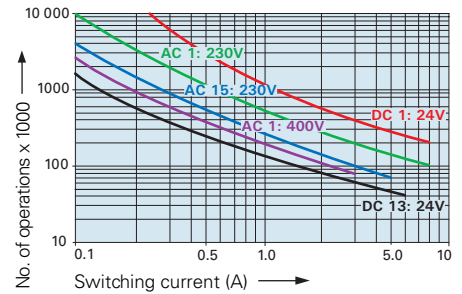
| | |
|------------------------------|-------------------|
| Approvals | SEV, UL, cUL, TÜV |
| Insulation class IEC 60664-1 | 250VAC |
| Protection class II | VDE 0106 |
| Fire protection requirements | UL 94 / V1 |

Options, accessories

| | |
|-----------------------------|-------------|
| Wash-resistant with O-Ring | |
| Sealed RT III | on request |
| PCB socket, DIN rail socket | see page 27 |

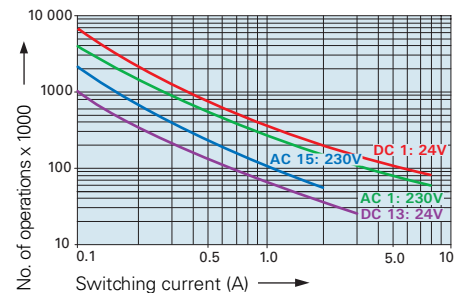
Diagrams

Contact lifetime for NO contact



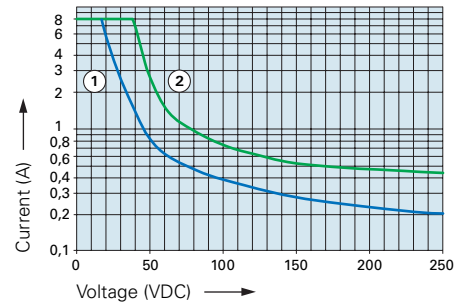
Max. switching characteristics (acc. to DIN EN 60947-5-1 table C2):
AC 15: 230V/5A, DC13: 24V/6A; UL 508: C300
Maximal contact load at AC 1 with 230V:
2 contacts each with 8A

Contact lifetime for NC contact



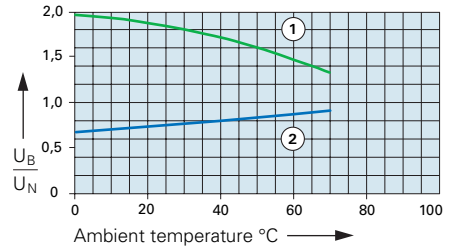
Max. switching characteristics (acc. to DIN EN 60947-5-1 table C2):
AC 15: 230V/2A, DC13: 24V/3A

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 ≤ 2A
- 2) Min. excitation voltage (guaranteed values) without previous operation

No heat accumulation due to intrinsic heating of other components. Continuous duty 100%.