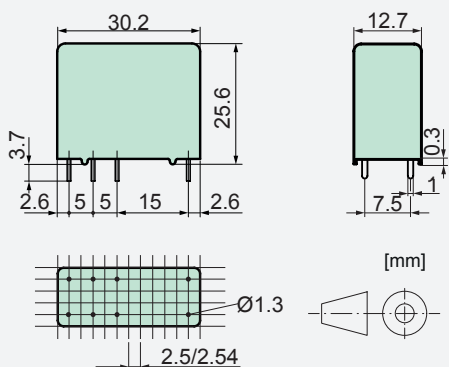




### Relay Key Data

- 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 creepage distances >5.5mm)
- EN50205 type B
- 2 CO contacts
- Mean coil power approx. 0.7W
- Holding coil power 0.21W
- For railway application (EN50155) on request

### Dimensions



### Contact Data

|                                   |                              |
|-----------------------------------|------------------------------|
| Contact material                  | AgSnO <sub>2</sub> +0.2µm Au |
| Type of contact                   | Single contact               |
| Rated switching capacity          | 250VAC 8A AC1 2'000VA        |
| Electr. life AC 1(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*         | 120mW to 2'000W(VA)          |
| Contact resistance (as delivered) | ≤100mΩ/28V/100mA             |

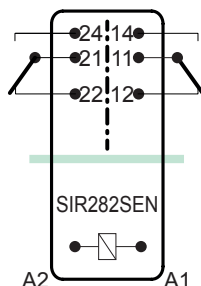
\*Guided values

### 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 |
|---------------------|-------------------------------|---------------------------|-----------------------|----------------------------|
| 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                            | ≥6.0                      | 12.0                  | 5'000 ± 13%                |
| 110                 | 82.5                          | ≥11.0                     | 6.5                   | 16'800 ± 15%               |

### Circuit Diagram (view on relay upper side)



### Insulation Data

|                                    |                  |
|------------------------------------|------------------|
| - Double or reinforced insulation  | at 250VAC        |
| - Air and creepage distance        | >5.5mm           |
| - Test voltage                     | 4'000V/50Hz/1min |
| - Double or reinforced insulation  | at 250VAC        |
| - Air and creepage distance        | >14mm            |
| - Test voltage                     | 5'000V/50Hz/1min |
| Test voltage contact open          | 1'500V/50Hz/1min |
| Creepage resistance                | CTI 250          |
| Pollution degree                   | 2                |
| Overvoltage category               | III              |
| Insulation resistance at Up 500VDC | >100MΩ           |

### Additional Data

|   |                                  |
|---|----------------------------------|
| Mechanical endurance                    | >10x10 <sup>6</sup> operations   |
| Switching frequency, mechanical         | 15Hz                             |
| Response time (all NO closed)           | typically 12ms                   |
| Drop-out time** (all NC closed)         | typically 5ms                    |
| Bounce time of NO contact               | typically 4ms                    |
| Bounce time of NC contact               | typically 8ms                    |
| Shock resistance 16ms                   | NO > 10g<br>NC > 2.5g            |
| Vibration resistance (10-55Hz)          | NO > 10g<br>NC > 1g              |
| Resistance to short circuiting contacts | 1'000A SCPD 10A gG/gL (pre-fuse) |
| Ambient temperature                     | -40°C to +70°C                   |
| Thermal Resistance                      | 50K/W                            |
| Temperature limit for coil              | 120°C                            |
| Weight                                  | ca. 20g                          |
| Mounting position                       | any                              |
| Type of protection                      | RT II                            |
| Solder bath temperature                 | 270°C/5s                         |

\*\*without spark suppression

### Tests, Regulations

Approvals

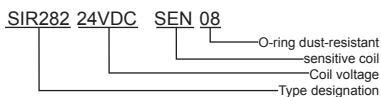


|                              |            |
|------------------------------|------------|
| UL File E188953              | Sec. 1     |
| Insulation class IEC 60664-1 | 250VAC     |
| Protection class II          | VDE 0106   |
| Fire protection requirements | UL 94 / V1 |

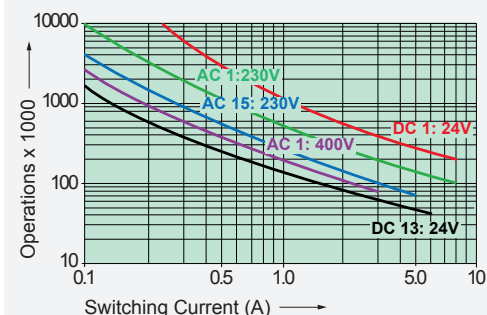
### Options, Accessories

|                             |             |
|-----------------------------|-------------|
| PCB socket, DIN rail socket | see page 30 |
| Sealed RT III               | on request  |
| Dust resistant with O-Ring  |             |

### Product Key



### Contact Lifetime for NO Contacts

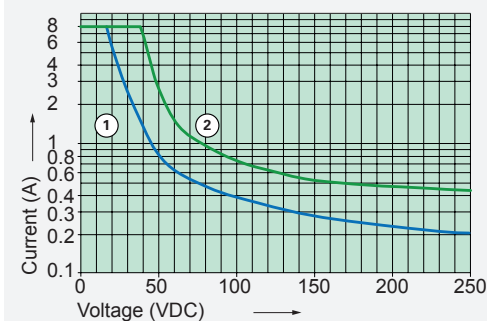


Maximal switching characteristics (DIN EN60947-5-1, Tab. C2)

|         |           |
|---------|-----------|
| AC 15:  | 230V / 5A |
| DC 13:  | 24V / 6A  |
| UL 508: | C300      |

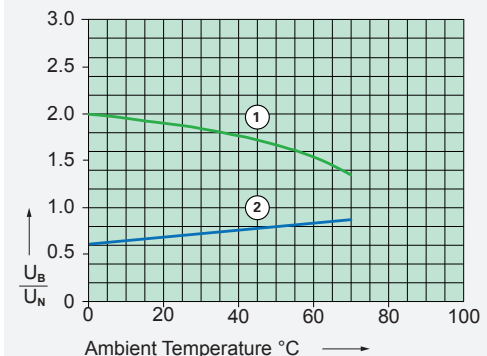
Maximal contact load at AC 1 with 230V:  
2 contacts with 8A each

### Load Limit Curve with Direct Current



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

### Excitation Voltage Range



- 1) Max. excitation voltage with contact load: ≤5A
- 2) Min. excitation voltage (guaranteed values) without previous operation

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