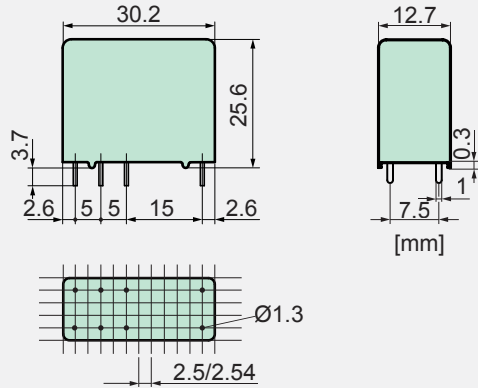




### Relay Key Data

- 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 1W
- Holding coil power 0.31W

### Dimensions



### Contact Data

|                                   |                       |
|-----------------------------------|-----------------------|
| Contact material                  | AgCuNi                |
| Type of contact                   | Single contact        |
| Rated switching capacity          | 250VAC 6A 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*          | 20mA to 6A            |
| Switching current range**         | 10mA to 6A            |
| Switching capacity range*         | 120mW to 1'500W(VA)   |
| Switching capacity range**        | 60mW to 1'500W(VA)    |
| Contact resistance (as delivered) | ≤100mΩ/28V/100mA      |

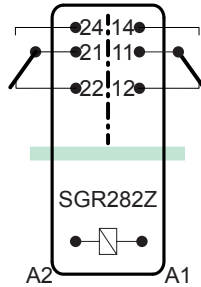
\*Guided values  
\*\*Values for AgCuNi+4-6µm Au

### 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                      | 181.8                 | 27.5 ± 10%                 |
| 6                   | 4.5                           | ≥0.6                      | 166.6                 | 36 ± 10%                   |
| 12                  | 9.0                           | ≥1.2                      | 85.7                  | 140 ± 10%                  |
| 18                  | 13.5                          | ≥1.8                      | 66.6                  | 270 ± 10%                  |
| 24                  | 18.0                          | ≥2.4                      | 33.3                  | 720 ± 10%                  |
| 48                  | 36.0                          | ≥4.8                      | 20.8                  | 2'300 ± 10%                |
| 60                  | 45.0                          | ≥6.0                      | 13.6                  | 4'400 ± 13%                |
| 110                 | 82.5                          | ≥11.0                     | 11.0                  | 10'000 ± 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 550          |
| Pollution degree                   | 2                |
| Overvoltage category               | III              |
| Insulation resistance at Up 500VDC | >100MΩ           |

### Additional Data

|   |                                 |
|---|---------------------------------|
| Mechanical endurance                    | >50x10 <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 6A 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

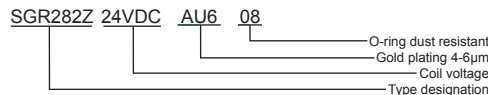
### Tests, Regulations

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

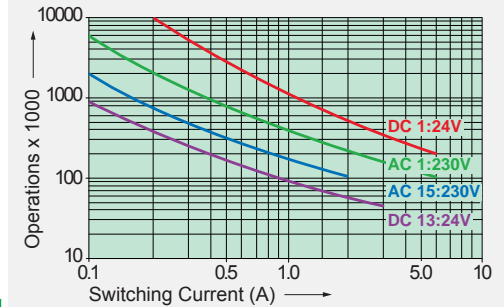
### Options, Accessories

|                                |             |
|--------------------------------|-------------|
| PCB socket, DIN rail socket    | see page 28 |
| Sealed RT III                  | on request  |
| Dust resistant with O-Ring     |             |
| Contact material with 4-6µm Au |             |

### Product Key



### Contact Lifetime for NO Contacts



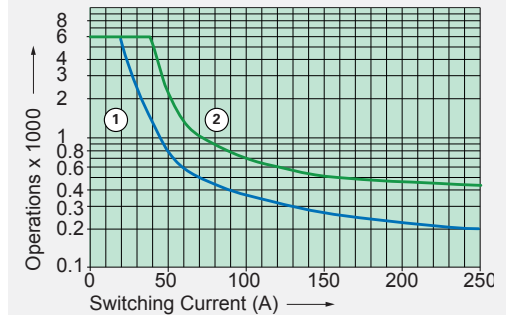
Maximal switching characteristics (DIN EN60947-5-1, Tab. C2)  
AC 15: 230V / 3A  
DC 13: 24V / 4A  
UL 508: C300

Maximal contact load at AC 1 with 230V:  
2 contacts with 6A each

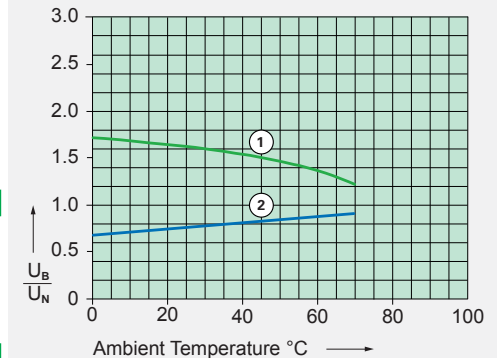
### Gold contacts with 4-6µm layer thickness

When switching high voltages and currents the layer of gold is already destroyed after a few switching operations. Once the gold layer is damaged due to the switching of high loads, this contact must not be used anymore for signal and control current circuits. Then safe contact making is only possible at high loads with the formation of sparks.

### Load Limit Curve with Direct Current



### Excitation Voltage Range



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