

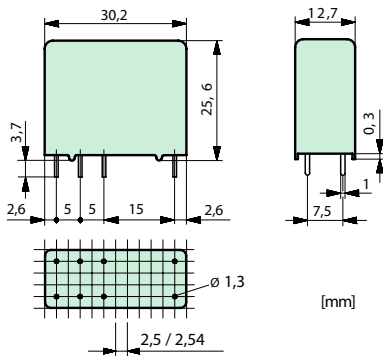


SGR282Z sensitive Series

Relay Key Data

- PCB relay with forcibly guided Contacts
- Protective separation between Coil and Contacts (Air and Creepage Distance >14mm); Protective separation between left and right Contact Side (Air and Creepage Distance >5.5mm)
- EN50205 Type B
- 2 Change-Over Contacts
- Mean Coil Power 0.7W
- Holding Power 0.21W

Dimensions



Contact Data

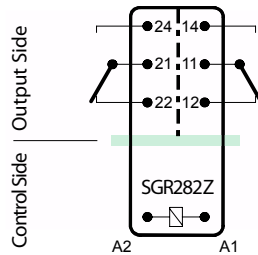
Contact Material	AgCuNi
Type of Contact	Single Contact
Rated Switching Capacity	250VAC 6A AC1 1'500VA
Electr. life AC1(360 cycles/h)	approx. 100'000
Inrush Current max.	15A for 20ms
Switching Voltage Range	5 to 250 VDC/VAC
Switching Current Range*	20mA to 6A
Schaltstrombereich**	10mA to 6A
Switching 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	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%

Circuit Diagram (Topview)



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 contacts open 1'500V/50Hz/1min
Creepage Resistance CTI 550
Pollution Degree 2
Overvoltage Category III
Insulation Resistance at Up 500VDC >100 MΩ

Mechanical life	>10x10 ⁶ operations
Switching frequency, mechanical	15Hz
Response Time (all NO closed)	typ. 12ms
Drop-Out Time*** (all NC closed)	typ. 5ms
Bounce Time of NO Contact	typ. 4ms
Bounce Time of NC Contact	typ. 8ms
Shock Resistance 16ms	NO > 10g NC > 2.5g
Vibration Resistance (10-200Hz)	NO > 10g NC > 1g
Resistance to short circuiting output contacts	1'000A SCPD 6A gG/gL (pre-fuse)
Ambient Temperature	-40°C to +70°C
Thermal Resistance	50 K/W
Temperature Limit for Coil	120°C
Weight	approx. 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

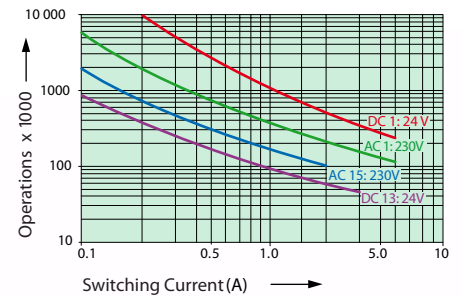
Optionen, Accessories

PCB Socket, DIN Rail Socket	see Page 27
Sealed RT III	on request
Dust-resistant with O-Ring	
Contact Material with 4-6µm AU	

Product Key

SGR282Z 24VDC SEN AU6 08
 O-Ring Dust-resistant
 Gold plating 4-6µm
 Sensitive Coil
 Coil Voltage
 Type designation

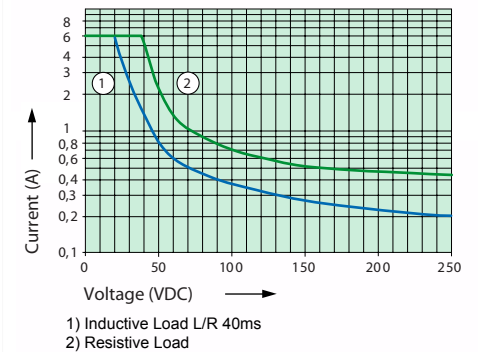
Contact Lifetime for AgCuNi



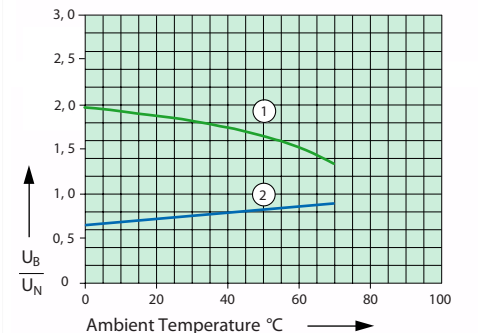
Max. Switching Characteristics (DIN EN 60947-5-1, Tab.C2):

AC 15: 230V / 3A
 DC 13: 24V / 4A
 UL508: C300
 Maximal Contact Load at AC1 with 230V:
 2 Contacts with 6A each
 Gold contacts with 4-6µm layer thickness. When high voltages and currents are switched, the layer of gold is destroyed already after a few switching operations. Once the gold layer is damaged due to the switching of high loads, such a contacts must not be used any more for signal and control current circuits. Safe contact making is then possible at high loads with the formation of sparks.

Load Limit Curve Direct Current



Excitation Voltage Range



- 1) Max. excitation Voltage with Contact Load: <4A
- 2) Min. excitation Voltage (guaranteed Values) without previous operation.

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