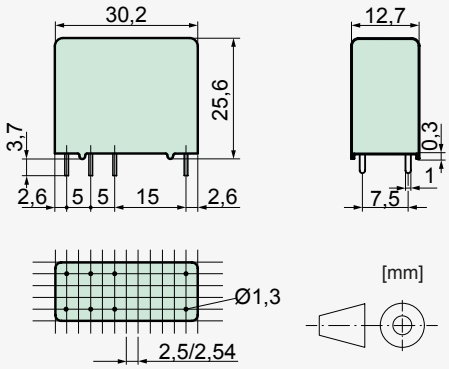
SGR 282 ZK Series



Relay Key Data

- PCB relay with forcibly guided contacts
- Protective separation between coil and contacts (air and creepage distance >14 mm); protective separation between left and right contact side (air and creepage distance >5,5 mm)
- IEC 61810-3 Type B
- 2 changeover contacts with notch crown
- Nominal coil power 0,7 W
- Holding coil power 0,21 W

Dimensions



Contact Data

Contact material	AgCuNi + 0,2 µm Au
Type of contact	notched crown
Rated switching capacity	250 VAC 8 A AC1 2000 VA
Electr. Life AC1(360 S / h)	approx.100000
Inrush current max.	15 A for 20 ms
Switching voltage range	5 to 250 VDC / VAC
Switching current range*	4 mA to 8 A
Switching capacity range*	50 mW to 2000 W(VA)
Contact resistance (as delivered)	≤100 mΩ / 28 V / 100 mA

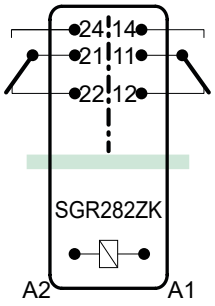
*Guided values

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
5	3,75	≥0,5	140,0	35,7 ± 10%
6	4,50	≥0,6	116,0	51,4 ± 10%
12	9,00	≥1,2	58,5	205,0 ± 10%
18	13,50	≥1,8	38,9	462,0 ± 10%
24	18,00	≥2,4	29,1	822,0 ± 10%
48	36,00	≥4,8	14,5	3290,0 ± 10%
60	45,00	≥6,0	11,6	5140,0 ± 13%
110	82,50	≥11,0	6,3	17280,0 ± 15%

Circuit Diagram (relay top view)



Insulation Data

- 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	>14 mm
- Test voltage	5000 V / 50 Hz / 1 min
Test voltage contact open	1500 V / 50 Hz / 1 min
Creepage resistance	CTI 550
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 12 ms
Drop-out time** (NC closed)	typically 5 ms
Bounce time of NO contact	typically 4 ms
Bounce time of NC contact	typically 8 ms
Shock resistance 16 ms	NO > 10g
	NC > 2,5g
Vibration resistance	NO > 10g
(10-55 Hz)	NC > 1,5g
Short-circuit resistance	
NO	1000 A SCPD 10 A gG / gL (pre-fuse)
NC	1000 A SCPD 6 A gG / gL (pre-fuse)
Ambient temperature	-40°C to +70°C
Thermal Resistance	50 K / W
Temperature limit for coil	120°C
Weight	approx. 20 g
Mounting position	any
Mounting distance	rec. >5 mm
Test method	A / group assembly
Type of protection	RT II
Solder bath temperature	270°C / 5 s

**without spark suppression

Tests, Regulations, Standards

Approvals

UL File E188953	Sec. 1
Insulation class IEC 60664-1	250 VAC
Fire protection requirements	UL 94 / V1
Standards IEC 61810-1, IEC 61810-3	

Options, Accessories

Print socket, DIN-rail socket

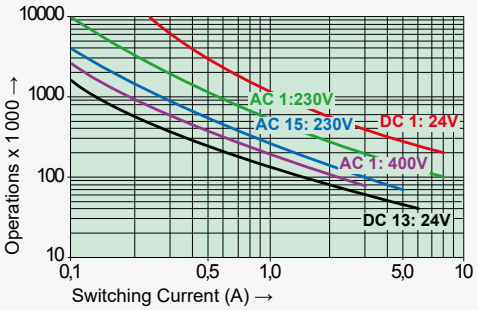
Wiring modules

Product Key

SGR282ZK 24VDC

Nominal voltage
Type designation

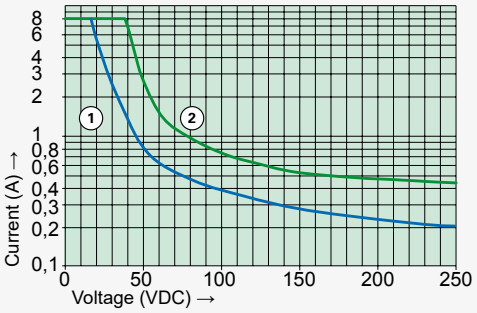
Contact Lifetime for NO Contacts



Maximal switching capacity (DIN EN 60947-5-1, Tab. C2)
AC 15: 230 V / 5 A
DC 13: 24 V / 6 A
UL 508: C300

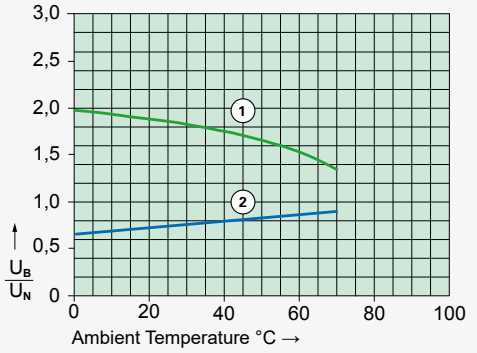
Maximal contact load at AC 1 with 230 V:
2 contacts with 8 A each

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%.

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