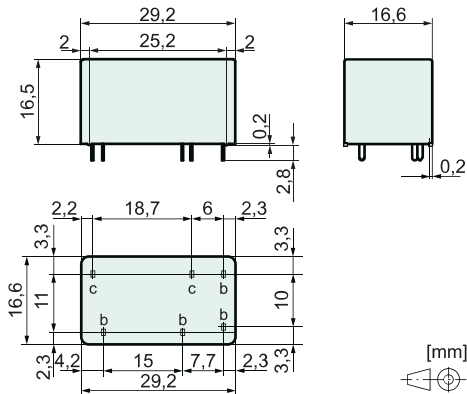




### Features

- Relay with forcibly guided contacts according to IEC 61810-3
- Application type A
- Protective separation (see insulation data)
- Suitable for print mounting
- Small design
- Low nominal and holding power
- Contact assignment  
SIS112 SEN: 1 NO + 1 NC

### Dimensions



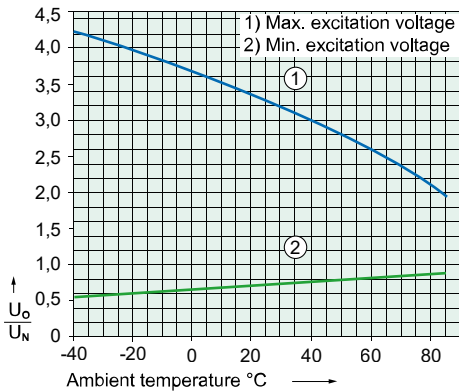
Pin dimension b	1,0 x 0,3 mm
Pin dimension c	1,0 x 0,4 mm
Recommended drilling on PCB	∅ 1,3 mm

### Coil data at 20 °C

Nominal power	0,2 W
Holding power	0,04 W
Coil limit temperature	120 °C

Nominal voltage (VDC)	Min. Pick-up voltage (VDC)	Min. Drop-out voltage (VDC)	Nominal current (mA)	Resistance (Ohm)
3,0	2,3	0,3	67	45 (1 ± 10 %)
5,0	3,8	0,5	40	125 (1 ± 10 %)
12,0	9,0	1,2	17	720 (1 ± 10 %)
18,0	13,5	1,8	11	1620 (1 ± 10 %)
24,0	18,0	2,4	8	2880 (1 ± 10 %)
48,0	36,0	4,8	4	11520 (1 ± 13 %)
60,0	45,0	6,0	3	18000 (1 ± 15 %)

### Excitation voltage range



### Test conditions:

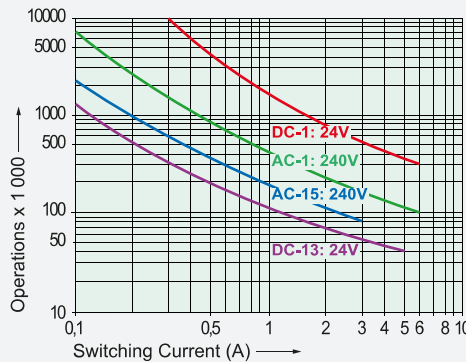
- Graph 1: Contact current 4 A MAX
- Graph 2: without previous operation
- Free-standing relay on PCB
- Duty cycle 100%

### Contact data

Contact material	AgCuNi + 0,2, ..., 0,4 μm Au
Type of contact	Single contact with notched crown
Rated switching power	1500 VA
250 V / 6 A / AC-1 (max.)	
Electr. life time (0,1 Hz, rel. duty cycle 10%)	90000
Inrush current	30 A for 20 ms
Switching voltage range	5, ..., 250 V DC / AC
Switching current range*	3 mA, ..., 6 A
Switching power range*	40 mW, ..., 1500 W (VA)
Contact resistance as new (max.)	100 mΩ
Short circuit resistance of contacts**	1000 A
with pre-fuse	SCPD 6 A gG / gL (fuse)

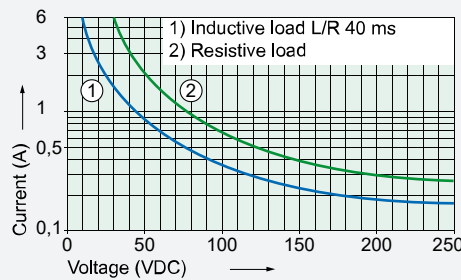
\* Reference values \*\* Prospective short-circuit current

### Electrical life (NO contacts)

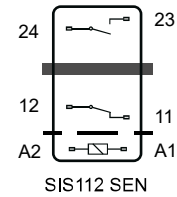


Switching capacity (IEC 61810-1)	
AC-1:	240 V / 6 A MAX
AC-15:	240 V / 3 A MAX
DC-1:	24 V / 6 A MAX
DC-13:	24 V / 5 A / 0,1 Hz MAX
Switching capacity (UL 508)	B300, R300
Continuous current per contact at load of:	
1 contact	6 A MAX

### Contact load limit curve (DC)



### Circuit diagram (top view)



### Insulation data

Rated insulation voltage (IEC 60664-1)	250 VAC
Basic insulation	4 mm
- Air and creepage distance (min.)	4 mm
- Test voltage	2500 V <sub>rms</sub> / 1 min
Double or reinforced insulation	10 mm
- Air and creepage distance (min.)	10 mm
- Test voltage	5000 V <sub>rms</sub> / 1 min
Open contact: Test voltage*	1500 V <sub>rms</sub> / 1 min
Creepage resistance	CTI 175
Pollution degree	2
Overvoltage category	III
Insulation resistance (min.)	100 MΩ
- Test voltage	500 VDC

\* Initial value

### Mechanical data

Mechanical lifetime (min.)	10 x 10 <sup>6</sup> operations
Switching frequency (max.)	12 Hz
Response time (NO closed) (typ.)	15 ms
Drop-out time (NC closed) (typ.)*	5 ms
Bounce time (typ.)	NO: 2 ms / NC: 15 ms
Shock resistance (16 ms) (min.)	NO: 17g / NC: 7g
Vibration resistance (10-200 Hz) (min.)	NO: 7g / NC: 2g
Weight	approx. 18 g
Mounting position	any
Mounting distance (min.)	1 mm

\* without coil wiring

### Other data

Ambient temperature	-40 °C, ..., +85 °C
Thermal resistance	55 K / W
Protection class	RT III
Solder bath temperature	270 °C / 5 s
Test method (heating)	A (group assembly)
Approvals	cULus, TÜV
Flammability class	UL 94 V-0
UL File	E188953 Sec. 5

### Options, Accessories

Mounting rail socket	SRD SIS3
Pin lengths for mounting rail socket	3,8 mm
Other pin lengths	possible
Other coil designs	possible
Coils accord. to EN 50155 (railway applications)	possible

### Product key

SIS	1	1	2	24VDC	SEN	XX
SIS	Type designation					
1	Number of contacts NO					
1	Number of contacts NC					
2	Connection technology					
24VDC	Nominal coil voltage					
SEN	sensitive coil					
XX	Options					