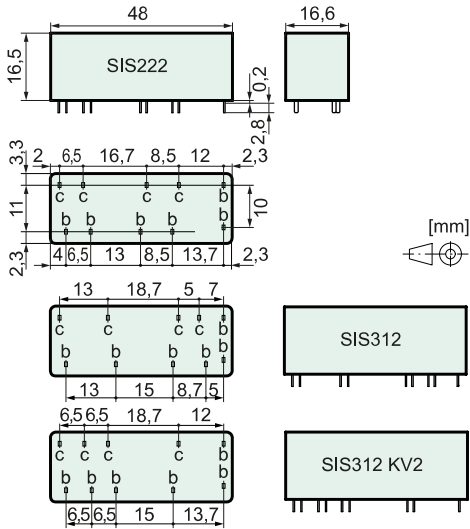


### Features

- Relay with forcibly guided contacts according to IEC 61810-3
- Application type A
- Protective separation (see insulation data)
- Suitable for print mounting
- Contact assignment  
SIS222: 2 NO + 2 NC, SIS312: 3 NO + 1 NC, SIS312 KV2: 3 NO + 1 NC

### Dimensions

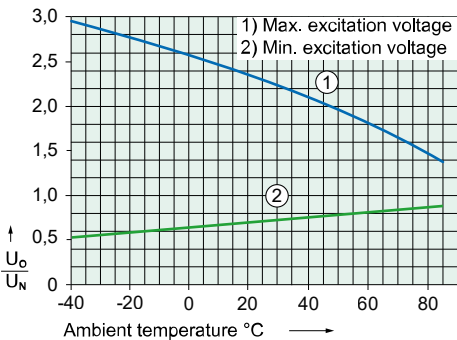


Pin dimension b	1,0 x 0,3 mm
Pin dimension c	1,0 x 0,4 mm
Recommended drilling on PCB	Ø 1,3 mm

### Coil data at 20 °C

Nominal power	0,5 W
Holding power	0,15 W
Coil limit temperature	120 °C

Nominal voltage (VDC)	Min. Pick-up voltage (VDC)	Min. Drop-out voltage (VDC)	Nominal current (mA)	Resistance (Ohm)
5,0	3,5	0,5	100	50 (1 ± 10 %)
12,0	8,4	1,2	42	285 (1 ± 10 %)
18,0	12,6	1,8	28	640 (1 ± 10 %)
24,0	16,8	2,4	21	1 150 (1 ± 10 %)
48,0	33,6	4,8	10	4 600 (1 ± 10 %)
60,0	42,0	6,0	8	7 200 (1 ± 13 %)
110,0	77,0	11,0	5	24 200 (1 ± 15 %)



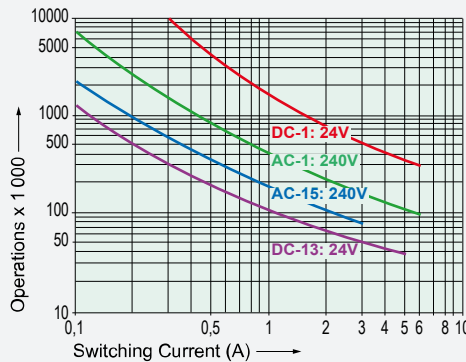
- Test conditions:
- Graph 1: Contact current 4 A MAX
  - Graph 2: without previous operation
  - Free-standing relay on PCB
  - Duty cycle 100%

### Contact data

Contact material	AgCuNi + 0,2, ..., 0,4 µm Au
Type of contact	Single contact with notched crown
Rated switching power	1 500 VA
250 V / 6 A / AC-1 (max.)	
Electr. life time (0,1 Hz, rel. duty cycle 10%)	90 000
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, ..., 1 500 W (VA)
Contact resistance as new (max.)	100 mΩ
Short circuit resistance of contacts**	1 000 A with pre-fuse
	SCPD 6 A gG / gL (fuse)

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

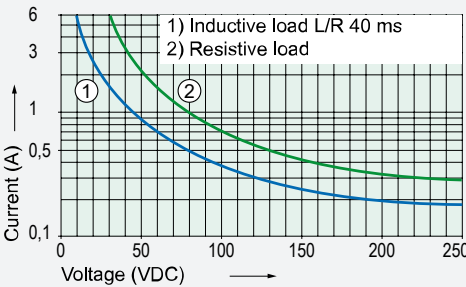
### Electrical life (NO contacts)



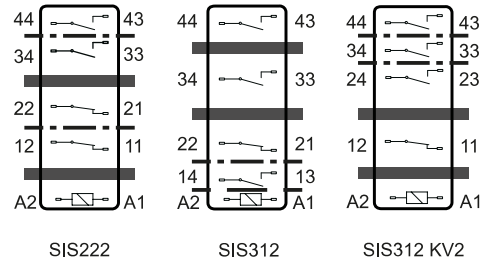
Switching capacity (IEC 61810-1)	
AC-1:	240 V / 6 A MAX
AC-15:	240 V / 3 A MAX
DC-1:	24 V / 6 A MAX
DC-13:	24 V / 5 A / 0,1 Hz MAX

Switching capacity (UL 508)	B300, R300
Continuous current per contact at load of:	
1 or 2 contacts	6 A MAX
3 contacts	4 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	2 500 V <sub>rms</sub> / 1 min
Double or reinforced insulation	5,5 mm
- Air and creepage distance (min.)	5,5 mm
- Test voltage	4 000 V <sub>rms</sub> / 1 min
Double or reinforced insulation	8 mm
- Air and creepage distance (min.)	8 mm
- Test voltage	4 000 V <sub>rms</sub> / 1 min
Open contact: Test voltage*	1 500 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.)	15 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: 10g / NC: 10g
Vibration resistance (10-200 Hz) (min.)	NO: 10g / NC: 4g
Weight	approx. 30 g
Mounting position	any
Mounting distance (min.)	1 mm

\* without coil wiring

### Other Data

Ambient temperature	-40 °C, ..., +85 °C
Thermal resistance	45 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

Other pin lengths	possible
Other coil designs	possible
Coils accord. to EN 50155 (railway applications)	possible

### Product key

SIS	3	1	2	24VDC	XX
SIS	Type designation				
3	Number of contacts NO				
1	Number of contacts NC				
2	Connection technology				
24VDC	Nominal coil voltage				
XX	Options				