

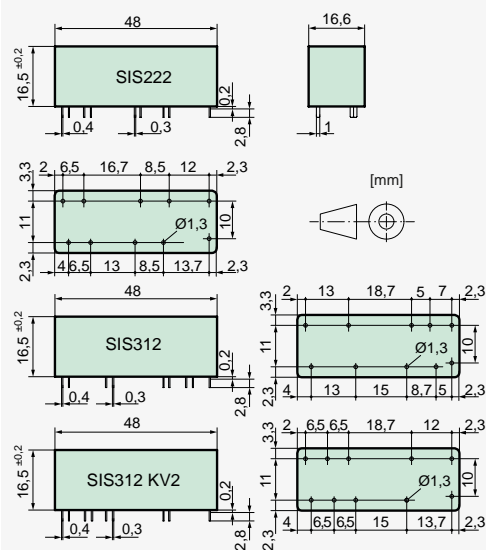
# SIS 4 sensitive Series



## Relay Key Data

- PCB relay with forcibly guided contacts
- Protective separation between control and load circuit (leakage and creepage distances > 8 mm)
- IEC 61810-3 Type A
- Double and reinforced insulation between the contacts
- Contact mounting: SIS312 3 NO / 1 NC  
SIS222 2 NO / 2 NC
- Small external dimensions
- Nominal coil power 0,33 W
- Holding coil power 0,08 W
- Coil for railway application according EN 50155 on request

## Dimensions



## Contact Data

Contact material	AgCuNi +0,2-0,4 µm Au
Type of contact	Single contact with notched crown
Rated switching capacity	250 VAC 6 A AC1 1500 VA
Electr. Life AC1 (360 S / h)	>90000
Inrush current max.	30 A for 20 ms
Switching voltage range	5 to 250 VDC / VAC
Switching current range*	3 mA to 6 A
Switching capacity range*	40 mW to 1500 W(VA)
Contact resistance (as delivered)	≤100 mΩ / 6 V / 100 mA

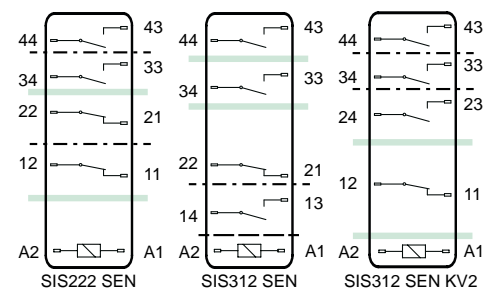
\*Guided values

## 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
3,0	2,3	0,3	111,0	27 ± 10%
3,3	2,5	0,3	100,0	33 ± 10%
4,5	3,4	0,5	73,7	61 ± 10%
5,0	3,8	0,5	66,6	75 ± 10%
6,0	4,5	0,6	55,5	108 ± 10%
12,0	9,0	1,2	27,9	430 ± 10%
24,0	18,0	2,4	13,8	1730 ± 10%
60,0	45,0	6,0	5,5	10800 ± 10%

## Circuit Diagram (relay top view)



## Insulation Data

- Basic insulation	at 250 VAC
- Air and creepage distance	>4 mm
- Test voltage	2500 V / 50 Hz / 1 min
- 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	>8 mm
- Test voltage	4000 V / 50 Hz / 1 min
Test voltage contact open	1500 V / 50 Hz / 1 min
Creepage resistance	CTI 175
Pollution degree	2
Overvoltage category	III
Insulation resistance at Up 500 VDC	>100 MΩ

## Additional Data

Mechanical endurance	>10 x 10 <sup>6</sup> operations
Switching frequency, mechanical	15 Hz
Response time (all NO closed)	typically 20 ms
Drop-out time** (NC closed)	typically 4 ms
Bounce time of NO contact	typically 2 ms
Bounce time of NC contact	typically 15 ms
Shock resistance 16 ms	NO > 10g NC > 10g
Vibration resistance (10-200 Hz)	NO > 10g NC > 4g
Resistance to short circuiting contacts	1000 A SCPD 6 A gG / gL (pre-fuse)
Ambient temperature	-40°C to +85°C
Thermal Resistance	45 K / W
Temperature limit for coil	120°C
Weight	approx. 30 g
Mounting position	any
Mounting distance	rec. >1 mm
Test method	A / group assembly
Type of protection	RT III
Solder bath temperature	270°C / 5 s

\*\*without spark suppression

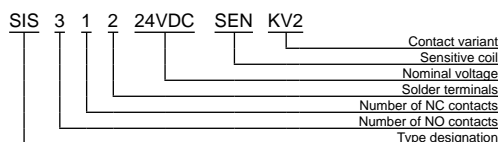
## Tests, Regulations, Standards

Approvals	
UL File E188953	Sec. 5
Insulation class IEC 60664-1	250 VAC
Fire protection requirements	UL 94 / V0
Standards IEC 61810-1, IEC 61810-3	

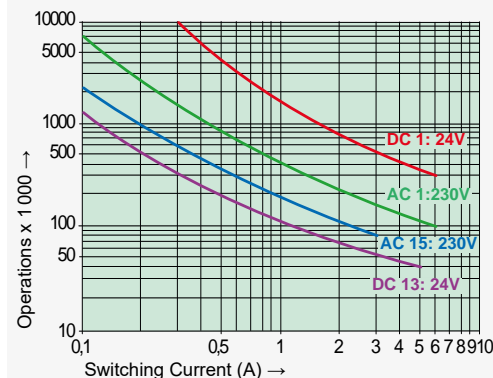
## Options, Accessories

none available

## Product Key



## Contact Lifetime for NO Contacts



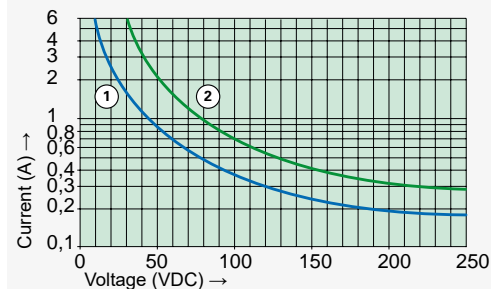
Maximal switching characteristics (EN60947-5-1)

AC 1:	250 V / 6 A
AC 15:	230 V / 3 A
DC 1:	24 V / 6 A
DC 13:	24 V / 5 A / 0,1 Hz
UL 508:	B300 / R300

Maximal contact load at AC 1 with 230 V:

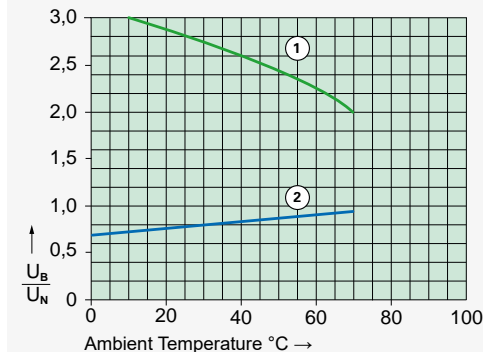
- 2 contacts with 6 A each
- 3 contacts with 4 A each

## 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%.