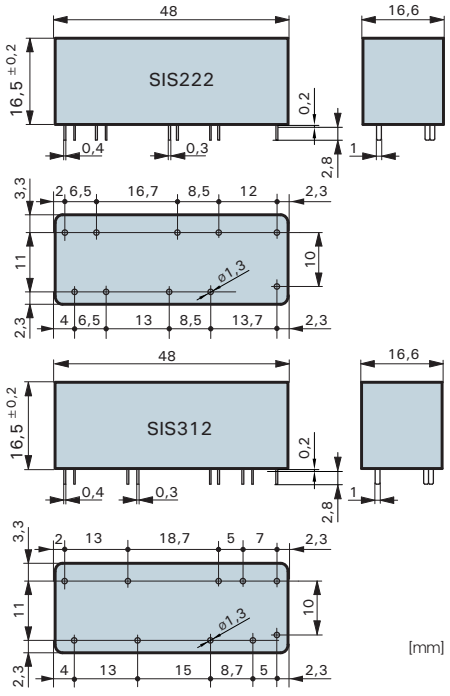
SIS 4 Contacts

Relay data

- PCB relay with forcibly guided contacts
- Protective separation between control and load circuit (leakage and creepage distance > 8mm)
- EN 50205, type A
- Double and reinforced insulation between the contacts
- Contact mounting:
  SIS312 3NO/1NC SIS222 2NO/2NC
- Small external dimensions
- Mean coil power 0.5W
- Holding power 0.15 W
- For Railway Applications: EN 50155



Contact material	AgCuNi+0,2-0,4µm Au
Type of contact	Single contact with notched crown
Rated switching capacity 250VAC 6A AC1 1'500VA	
Electr. life AC1 (360 cycles/h)	approx.100'000
Inrush current max.	30A for 20ms
Switching voltage range	5 to 250VDC/VAC
Switching current range*	5mA to 6A
Switching capacity range* 60mW to 1'500W (VA)	
Contact resistance (as delivered)	≤100mΩ/28 V/100mA

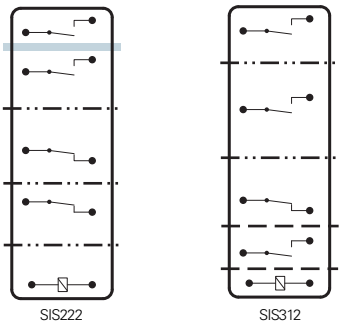
* Guide values

Standard coils for direct current (other voltages on request)

Nominal voltage VDC	Min. pick-up voltage at 20°C	Drop-out voltage	Nominal current in mA	Resistance in Ohm at 20 °C	Tolerance in %
5	3,5	≥ 0,5	100	50	± 10
9	6,3	≥ 0,9	56,2	160	± 10
12	8,4	≥ 1,2	42,1	285	± 10
18	12,6	≥ 1,8	28,1	640	± 10
24	16,8	≥ 2,4	20,8	1'150	± 10
48	33,6	≥ 4,8	10,4	4'600	± 13
60	42,0	≥ 6,0	8,3	7'200	± 13
110	77,0	≥ 11,0	4,5	24'200	± 15

General data

Circuit diagram (view on relay upper side)



Double or reinforced insulation for mains circuits
> 8mm leakage distance,
> 5,5mm creeping distance

Double or reinforced insulation for safety low voltage
> 8mm leakage and creeping distance

Basic insulation
> 4mm leakage and creeping distance

Mechanical life	> 10 x 10^6 operations
Switching frequency, mechanical	15Hz
Response time (all NO closed)	typically 15ms
Drop-out time** (all NC closed)	typically 5ms
Bounce time of NO contact	typically 2ms
Bounce time of NC contact	typically 15ms
Shock resistance 16ms	NO contact 10g NC contact 10g
Vibration resistant 10-200Hz	NO contact 10g NC contact 4g
Test voltage coil/control contacts***	2'500Veff 1min
Test voltage output contacts as against each other	4'000Veff 1min
Test voltage contact open	1'500Veff 1min
Insulation resistance at Up 500V	10^8 Ω
Creepage resistance	CTI 175
Weight	approx. 30g
Mounting position	any
Ambient temperature	-40°C to +70°C
Type of protection	RT III
Solder bath temperature	270°C/5s
Thermal resistance	45K/W
Temperature limit for coil	120°C
Pollution degree	2
Overvoltage category	III
Resistance to short circuiting	1'000A SCPD 6A gG (pre-fuse)

** without spark suppression
*** SIS222 4000Veff 1min

Insulation terms

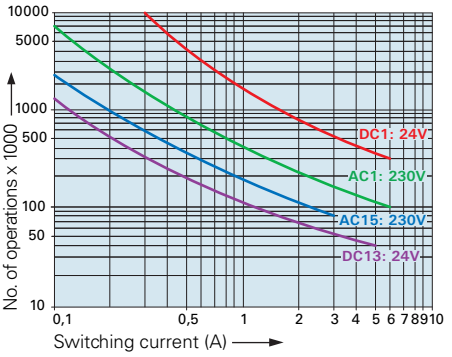
Coil/control contacts: Basic insulation SIS312
Double or reinforced insulation > 8mm SIS222
Coil/control contacts to output contacts:
Double or reinforced insulation > 8mm

Tests, regulations

Approvals	SEV, UL, cUL, TÜV
UL File E188953	Sec. 5
Insulation class IEC 60664-1	250VAC
Protection class II	VDE 0106
Fire protection requirements	UL 94 / V0

Diagrams

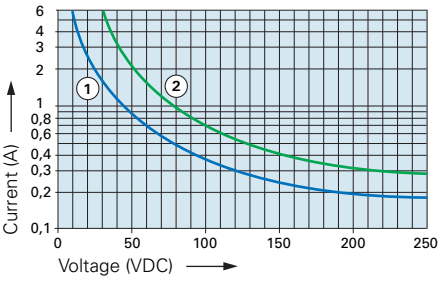
Contact lifetime



Max. switching characteristics (determined acc. to DIN EN 60947-4-1 / EN 60947-5-1):
AC 1: 250V/6A AC 15: 230V/3A
DC 1: 24V/6A DC 13: 24V/5A/0.1 Hz
UL 508: B300 / R300

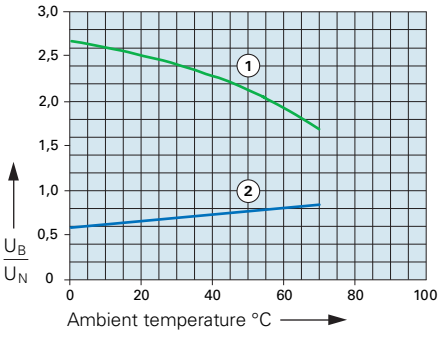
Maximal contact load at AC 1 with 230V:
2 contacts each with 6A / 3 contacts each with 4A

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 ≤ 2A
2) Min. excitation voltage (guaranteed values) without previous operation

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

Ordering example

SIS 3 1 2 24VDC

- 24VDC — Coil voltage
- 2 — Soldering tags
- 1 — Number of NC contacts
- 3 — Number of NO contacts
- SIS — Type designation

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