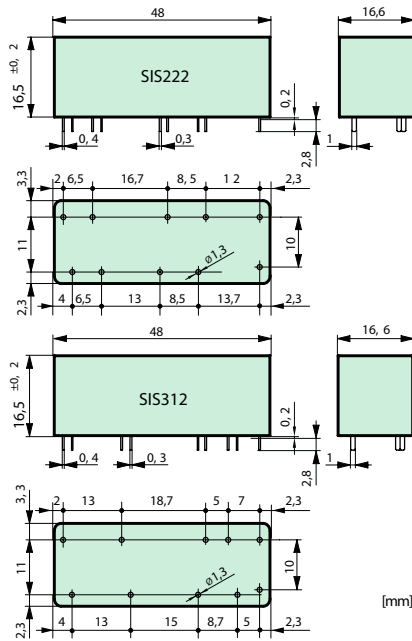




### Relay Key Data

- PCB Relay with forcibly guided Contacts
- Protective separation between Coil and Contacts (>5.5mm) as well as Contacts side by side (>5.5mm)
- EN50205 Type A
- Double and Reinforced Insulation
- Contact Mounting: SIS312 3NO / 1NC  
SIS222 2NO / 2NC
- Small external Dimensions
- Mean Coil Power 0.5W
- Holding Power 0.15W
- For Railway Application EN50155 on request

### Dimensions



### Contact Data

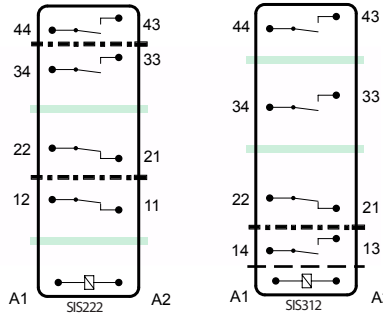
|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Contact Material                  | AgCuNi+0.2-0.4µm Au               |
| Type of Contact                   | Single Contact with notched crown |
| Rated Switching Capacity          | 250VAC 6AAC1 1'500VA              |
| Electr. life AC1(360 cycles/h)    | approx.100'000                    |
| Inrush Current max.               | 30A for 20ms                      |
| Switching Voltage Range           | 5 to 250 VDC/VAC                  |
| Switching Current Range*          | 5mA to 6A                         |
| Switching Capacity Range*         | 60mW to 1'500W(VA)                |
| Contact resistance (as delivered) | ≤100mΩ/6V/100mA                   |

\*Guided Values

### Standard Coils for direct current (other voltages on request)

| Nominal Voltage VDC | Min. Pick-Up Voltage at 20°C | Drop-Out Voltage at 20 °C | Nominal Current in mA | Resistance in Ohm at 20 °C |
|---------------------|------------------------------|---------------------------|-----------------------|----------------------------|
| 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 ± 10%                |
| 60                  | 42.0                         | ≥6.0                      | 8.3                   | 7'200 ± 13%                |
| 110                 | 77.0                         | ≥11.0                     | 4.5                   | 24'200 ± 15%               |

### Circuit Diagram (Topview)



### Insulation Data

- Basic Insulation at 250VAC
- Air and Creepage Distance >4mm
- Test Voltage 2'500V/50Hz/1min
- Double or Reinforced Insulation at 250VAC
- Air and Creepage Distance >5.5mm
- Test Voltage 4'000V/50Hz/1min
- Double or Reinforced Insulation at 250VAC
- Air and Creepage Distance >8mm
- Test Voltage 4'000V/50Hz/1min

|                                    |                  |
|------------------------------------|------------------|
| Test Voltage contacts open         | 1'500V/50Hz/1min |
| Creepage Resistance                | CTI 175          |
| Pollution Degree                   | 2                |
| OvervoltageCategory                | III              |
| Insulation Resistance at Up 500VDC | >10 MΩ           |

### Additional Relay Data

|                                 |                                |
|---------------------------------|--------------------------------|
| Mechanical life                 | >10x10 <sup>6</sup> operations |
| Switching frequency, mechanical | 15Hz                           |
| Response Time (all NO closed)   | typ. 15ms                      |
| Drop-Out Time** (all NC closed) | typ. 5ms                       |
| Bounce Time of NO Contact       | typ. 2ms                       |
| Bounce Time of NC Contact       | typ. 15ms                      |
| Shock Resistance 16ms           | NO > 10g<br>NC > 10g           |
| Vibration Resistance (10-200Hz) | NO > 10g<br>NC > 4g            |

|  |                                 |
|--|---------------------------------|
| Resistance to short circuiting output contacts | 1'000A SCPD 6A gG/gL (pre-fuse) |
| Ambient Temperature                            | -40°C tp +70°C                  |
| Thermal Resistance                             | 45 K/W                          |
| Temperature Limit for Coil                     | 120°C                           |
| Weight   | approx.30g                      |
| Mounting Position                              | any                             |
| Type of Protection                             | RT III                          |
| Solder bath Temperature                        | 270°C/5s                        |



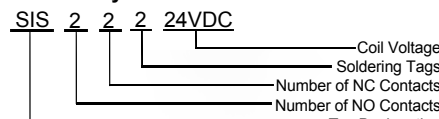
### Tests, Regulations Approvals

|                                |            |
|--------------------------------|------------|
| UL File E188953                | Sec. 5     |
| Insulation class (IEC 60664-1) | 250VAC     |
| Protection class II            | VDE 0106   |
| Fire Protection requirements   | UL 94 / V0 |

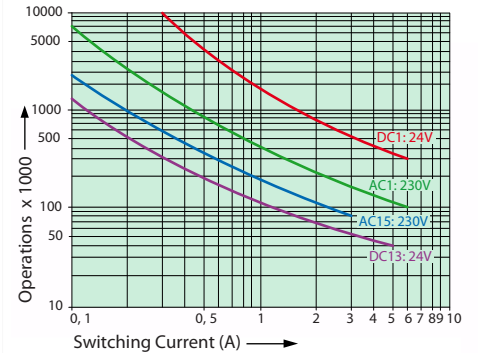
### Options, Accessories

None

### Product Key



### Contact Lifetime

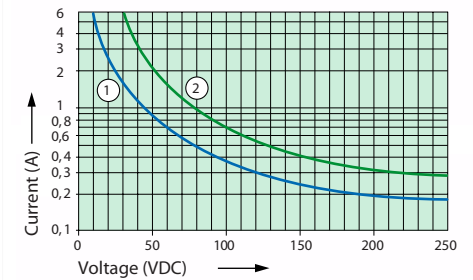


### Max. Switching Characteristics (DIN EN60947-5-1 / EN 60947-5-1):

- AC1: 250V / 6A
- AC 15: 230V / 3A
- DC1: 24V / 6A
- DC 13: 24V / 5A / 0.1Hz
- UL 508: B300/ R300

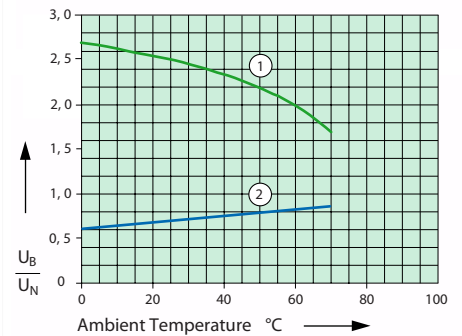
Maximal Contact Load at AC1 with 230V:  
2 Contacts with 6A each  
3 Contacts with 4A each

### Load Limit Curve Direct Current



- Inductive Load L/R 40ms
- Resistive Load

### Excitation Voltage Range



- Max. excitation Voltage with Contact Load: <4A
- Min. excitation Voltage (guaranteed Values) without previous operation.

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