

Product Overview

Relays with forcibly guided contacts



| Relays | SIS 2 / SIS 2 SEN | SIS 3 / SIS 3 SEN | SIS 4 / SIS 4 SEN | SIS 6 / SIS 6 SEN | SISF 3 | SIF 3 | SIF 4 | SIF 6 | SGR 282 ZK | SGR 282 ZK Variants |
|--------------------------------|---|--|---|--|---|---|---|---|---|---|
| Features | Small dimensions High shock resistance Large or very large excitation voltage range Low or very low coil power High contact reliability | Small dimensions High shock resistance Large or very large excitation voltage range Very low coil power with sensitive coil High contact reliability | High shock resistance Large or very large excitation voltage range Low or very low coil power High contact reliability | Very compact design High shock resistance Large or very large excitation voltage range High contact reliability | Very flat design Small dimensions Wide excitation voltage range Low coil power High contact reliability | Extremely flat design Wide switching current range SMD placement under relay possible | Extremely flat design Wide switching current range SMD placement under relay possible | Extremely flat design Wide switching current range SMD placement under relay possible | Overmoulded coil design also suitable for ATEX applications High contact reliability | Overmoulded coil design also suitable for ATEX applications High contact reliability |
| Number of contacts | 2 | 3 | 4 | 6 | 3 | 3 | 4 | 6 | 2/2 | 2 |
| Contact material | AgCuNi | AgCuNi | AgCuNi | AgCuNi | AgCuNi | AgCuNi | AgCuNi | AgCuNi | AgCuNi | AgCuNi |
| Contact type (output contacts) | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown | Single contact with notched crown |
| Coil voltage | 3 VDC - 60 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 5 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC |
| Coil power ¹ | 200 mW - 270 mW | 400 mW - 600 mW | 330 mW - 500 mW | 440 mW - 660 mW | 700 mW | 600 mW | 700 mW | 660 mW | 700 mW | 700 mW |
| Switching current range | 3 mA - 6 A | 3 mA - 6 A | 3 mA - 6 A | 3 mA - 6 A | 3 mA - 6 A | 3 mA - 10 A | 3 mA - 8 A | 3 mA - 8 A | 4 mA - 8 A | 4 mA - 8 A |
| Test voltage open contact | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} |
| Test voltage Between contacts | 5000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} |
| Test voltage coil/contact | 2500 V _{rms} | 2500 V _{rms} | 4000 V _{rms} (SIS222, SIS312 KV2) 2500 V _{rms} (SIS312) | 2500 V _{rms} | 2500 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 4000 V _{rms} | 5000 V _{rms} | 5000 V _{rms} |
| Protection class | RT III | RT III | RT III | RT III | RT III | RT II | RT II | RT II | RT II | RT II |
| Dimensions in mm (external) | L 29,2 B 16,6 H 16,5 | L 29,2 B 16,6 H 16,5 | L 48 B 16,6 H 16,5 | L 48 B 16,6 H 16,5 | L 29,2 B 16,6 H 13 | L 33,7 B 29,4 H 10,9 | L 41 B 29,4 H 10,9 | L 53,6 B 33,5 H 10,9 | L 30,2 B 12,7 H 25,6 | L 30,2 B 12,7 H 25,6 |
| Approvals | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV |
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¹reference temperature 20°C

²between left and right contact side

³between control contacts

⁴between control and output contacts

⁵between output contacts

Product Overview

Relays with forcibly guided contacts



| SIM 2 | SIM 3 | SIM 4 | SLR 4 | SIR 4 / SIR 4 SEN | SIR 4 P | SIR 6 / SIR 6 SEN | SIR 8 | SIR 10 | SIP 6 |
|--|--|--|--|--|--|--|--|--|---|
| Overmoulded coil design also suitable for ATEX applications Extremely high air and creepage distances | Overmoulded coil design also suitable for ATEX applications Extremely high air and creepage distances | Overmoulded coil design also suitable for ATEX applications Extremely high air and creepage distances | Powerful Flat, compact design High contact reliability | Powerful Compact design High contact reliability Low coil power with sensitive coil Large coil working range with sensitive coil | Extremely powerful For loads with high peak current Compact design High contact reliability | Powerful Compact design High contact reliability Low coil power with sensitive coil Large coil working range with sensitive coil Contact configuration freely definable | Powerful High contact reliability Large coil working range Contact configuration freely definable | Powerful High contact reliability Large coil working range Contact configuration freely definable | Extremely powerful Very high contact reliability For highest loads with 3-phase applications and DC loads |
| 2 | 3 | 4 | 4 | 4 | 4 | 6 | 8 | 10 | 6 |
| AgSnO ₂ | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ |
| Crown contact | Crown contact | Crown contact | Crown contact | Crown contact | Single contact | Crown contact | Crown contact | Crown contact | Single contact |
| 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 110 VDC | 3 VDC - 220 VDC | 3 VDC - 220 VDC | 3 VDC - 220 VDC |
| 500 mW | 750 mW | 1000 mW | 600 mW | 360 mW - 600 mW | 750 mW | 500 mW - 750 mW | 1300 mW | 1300 mW | 1300 mW |
| 10 mA - 8 A | 10 mA - 8 A | 10 mA - 8 A | 10 mA - 10 A | 10 mA - 10 A | 5 mA - 12 A | 10 mA - 10 A | 10 mA - 10 A | 10 mA - 10 A | 5 mA - 16 A |
| 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} | 1500 V _{rms} |
| 4000 V _{rms} | 2500 V _{rms} ² 4000 V _{rms} ² | 2500 V _{rms} ² 4000 V _{rms} ² | 4000 V _{rms} ³ 4000 V _{rms} ⁴ 5000 V _{rms} ⁵ | 2500 V _{rms} ³ 5000 V _{rms} ⁴ 4000 V _{rms} ⁵ | 2500 V _{rms} ³ 5000 V _{rms} ⁴ 4000 V _{rms} ⁵ | 2500 V _{rms} ³ 5000 V _{rms} ⁴ 4000 V _{rms} ⁵ | 4000 V _{rms} | 4000 V _{rms} | 2500 V _{rms} ³ 5000 V _{rms} ⁴ 4000 V _{rms} ⁵ |
| 5000 V _{rms} | 5000 V _{rms} | 5000 V _{rms} | 2500 V _{rms} | 2500 V _{rms} | 2500 V _{rms} | 2500 V _{rms} | 5000 V _{rms} | 2500 V _{rms} | 2500 V _{rms} |
| RT II | RT II | RT II | RT II | RT II | RT II | RT II | RT II | RT II | RT II |
| L 27,4 B 12,5 H 26,2 | L 36,1 B 12,5 H 26,2 | L 36,1 B 12,5 H 26,2 | L 53,3 B 33,4 H 16,5 | L 46,4 B 16 H 30,7 | L 46,4 B 16 H 30,7 | L 58,9 B 16 H 30,7 | L 85,5 B 20 H 32 | L 85,5 B 20 H 32 | L 84,6 B 20 H 32 |
| UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV | UL, cUL, TÜV |
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