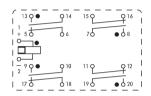
If required a breathing hole can be made in the cover. However be aware that the degree of waterproof protection will reduce from IP67 to IP30! Safety relay type SDS SF 4 with 4 break contacts and 4 make contacts with 1 relay with universal mounting carrier

Safety relay type SDS SF 4 with 4 break contacts and 4 make contacts with 2 relays with universal mounting carrier

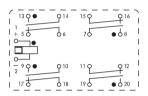


If an outer contact (20) should weld then the forced operated inner contact (12) driven by the actuator (d) remains open. The rotating armature (c) remains free to move. The unaffected contact pairs can operate normally, (i. e. their function to make or break remains unaffected). If an inner contact should weld (12) then the movement of the rotating armature (c) is blocked via the operator (d). Open contacts of all four contact pairs remain open. This arrangement corresponds to conventional, forced contact









| Description                                   | V <sub>N</sub>   | I <sub>N</sub>    | Item No. | Pack.<br>Unit | V <sub>N</sub>   | I <sub>N</sub>    | Item No. | Pack.<br>Unit |  |
|---|--|-------------------|----------|---------------|--|-------------------|----------|---------------|--|
| Switching relay module                        | 5 V DC   | 100 mA            | 288-412  | 1             | 5 V DC   | 100 mA            | 288-422  | 1             |  |
|   | 12 V DC  | 41.7 mA           | 288-413  | 1             | 12 V DC  | 41.7 mA           | 288-423  | 1             |  |
|   | 24 V AC/DC   | 20.9 mA           | 288-414  | 1             | 24 V AC/DC   | 20.9 mA           | 288-424  | 1             |  |
|   | 48 V AC/DC   | 10.5 mA           | 288-415  | 1             | 48 V AC/DC   | 10.5 mA           | 288-425  | 1             |  |
|   | 60 V AC/DC   | 8.4 mA            | 288-416  | 1             | 60 V AC/DC   | 8.4 mA            | 288-426  | 1             |  |
|   | 230 V AC   | 9.4 mA            | 288-418  | 1             | 230 V AC   | 9.4 mA            | 288-428  | 1             |  |
| Technical Data                                |  |                   |          |               |  |                   |          |               |  |
| Contact material                              |  | Ag Sn O 0.1 µm Au |          |               |  | Ag Sn O 0.1 μm Au |          |               |  |
| Max. switching voltage                        | 250 V AC   |                   |          |               | 250 V AC   |                   |          |               |  |
| Max. make / break current                     | 20 A / 6 A   |                   |          |               | 20 A / 6 A   |                   |          |               |  |
| Max. continuous current                       | 6 A  |                   |          |               | 6 A  |                   |          |               |  |
| Max. switching power (resistive)              | 150 W/ 1500 VA   |                   |          |               | 150 W / 1500 VA  |                   |          |               |  |
| Pull-in / operating power                     | 280 mW / 500 mW  |                   |          |               | 280 mW / 500 mW  |                   |          |               |  |
| Pull-in/drop-out/bounce time typ.             | 18 ms / 6 ms / 4 ms                                    |                   |          |               | 18 ms / 6 ms / 4 ms                                    |                   |          |               |  |
| Dielectric strength contact-coil (AC, 1 min)  | 2.5 kV   |                   |          |               | 2.5 kV   |                   |          |               |  |
| Nominal voltage acc. to VDE 0110 Part 1/4.97, | 250 V / 2.5 kV / 3                                     |                   |          |               | 250 V / 2.5 kV / 3                                     |                   |          |               |  |
| IEC 60664-1                                   |  |                   |          |               |  |                   |          |               |  |
| Mechanical life                               | 1 x 10 <sup>7</sup> switching operations               |                   |          |               | 1 x 10 <sup>7</sup> switching operations               |                   |          |               |  |
| Mechanical life at max. load (resistance)     | 1 x 10 <sup>5</sup> switching operations               |                   |          |               | 1 x 10 <sup>5</sup> switching operations               |                   |          |               |  |
| Ambient operating temperature                 |  | -40 °C +70 °C     |          |               |  | -40 °C +70 °C     |          |               |  |
| Dimensions (mm) L x W x H                     | 63.5 x 40 x 85   |                   |          |               | 127 x 40 x 85  |                   |          |               |  |
| incl. mounting carrier and relay              |  |                   |          |               |  |                   |          |               |  |
|   | Height from upper-edge of DIN 35 rail                  |                   |          |               | Height from upper-edge of DIN 35 rail                  |                   |          |               |  |
| Wire connection                               | CAGE CLAMP® (WAGO 256 Series)                          |                   |          |               | CAGE CLAMP <sup>®</sup> (WAGO 236 Series)              |                   |          |               |  |
| Cross sections                                | 0.08 mm <sup>2</sup> 2.5 mm <sup>2</sup> / AWG 28 12   |                   |          |               | 0.08 mm <sup>2</sup> 2.5 mm <sup>2</sup> / AWG 28 12   |                   |          |               |  |
| Stripped lengths                              | 5 6 mm / 0.22 in                                       |                   |          |               | 5 6 mm / 0.22 in                                       |                   |          |               |  |
| Relay Approvals                               | SEV approvals, no. D 3.31/192; SUVA approvals, no. 36  |                   |          |               | SEV approvals, no. D 3.31/192; SUVA approvals, no. 36  |                   |          |               |  |
|   | 62 (delayed operation 5 Amp fuse); TÜV test no. 945/EL |                   |          |               | 62 (delayed operation 5 Amp fuse); TÜV test no. 945/EL |                   |          |               |  |
|   | 178/88; UL recognized, file no. E 43149                |                   |          |               | 178/88; UL recognized, file no. E 43149                |                   |          |               |  |
|   |  |                   |          |               |  |                   |          |               |  |
|   |  |                   |          |               |  |                   |          |               |  |
| Accessories                                   |  |                   |          |               |  |                   |          |               |  |
| WMB Multi marking system for mounting carrier | see page 408   |                   |          |               | see page 408   |                   |          |               |  |
| Marker strips for mounting carrier            | white 709-198 / transparent 709-197                    |                   |          |               | white 709-198 / transparent 709-197                    |                   |          |               |  |

