

- Cadmium - free contacts
- Miniature size
- Automotive applications
- High inrush current
- Dust cover available
- PCB mounting

### Contacts

|                                 |  |       |            |
|---------------------------------|--|-------|------------|
| Contact number & arrangement    | see Table 1  |       |            |
| Contact material                | AgSnO <sub>2</sub> ; AgSnO <sub>2</sub> /Au 0,2 μm |       |            |
| <b>Voltage</b>                  |  |       |            |
| Max. switching voltage AC/DC    | 60 V / 60 V  |       |            |
| Min. switching voltage          | 1 V  |       |            |
| <b>Current</b>                  | 1C/O   | 1NO   | 2NO        |
| Min. switching current          | 10 mA  | 10 mA | 10 mA      |
| Max. inrush current             | 110 A / 50 A (1NO/1NC)                             | 110 A | 2 x 110 A  |
| Rated current                   | 20 A / 12 A (1NO/1NC)                              | 20 A  | 2 x 12,5 A |
| Max. breaking capacity          | 270 W / 162 W (1NO/1NC)                            | 270 W | 2 x 168 W  |
| Min. breaking capacity          | 1 W  | 1 W   | 1 W        |
| Resistance                      | ≤ 3 mΩ   |       |            |
| <b>Max. operating frequency</b> |  |       |            |
| • at rated load                 | 900 cycles/hour (2 s ON/ 2 s OFF)                  |       |            |
| • at motor load                 | 450 cycles/hour (2 s ON/ 6 s OFF)                  |       |            |
| • at lamp load                  | 120 cycles/hour (2 s ON/ 30 s OFF)                 |       |            |
| • no load                       | 36 000 cycles/hour                                 |       |            |

### Coil

|                                   |                       |
|-----------------------------------|-----------------------|
| <b>Voltage</b>                    |                       |
| Rated voltage                     | 5...48 V DC           |
| Must operate voltage (20°C)       | ≤ 0,6 U <sub>n</sub>  |
| Must release voltage              | ≥ 0,15 U <sub>n</sub> |
| Operating range of supply voltage | see Table 1           |
| Rated power consumption           | 1,44 W                |

### Insulation

|                              |          |
|------------------------------|----------|
| <b>Voltage</b>               |          |
| Insulation rated voltage     | 60 V AC  |
| Dielectric strength:         |          |
| • coil-contact               | 500 V AC |
| • contact-contact            | 500 V AC |
| <b>Contact-coil distance</b> |          |
| • clearance                  | ≥ 1 mm   |
| • creepage                   | ≥ 1 mm   |

### General data

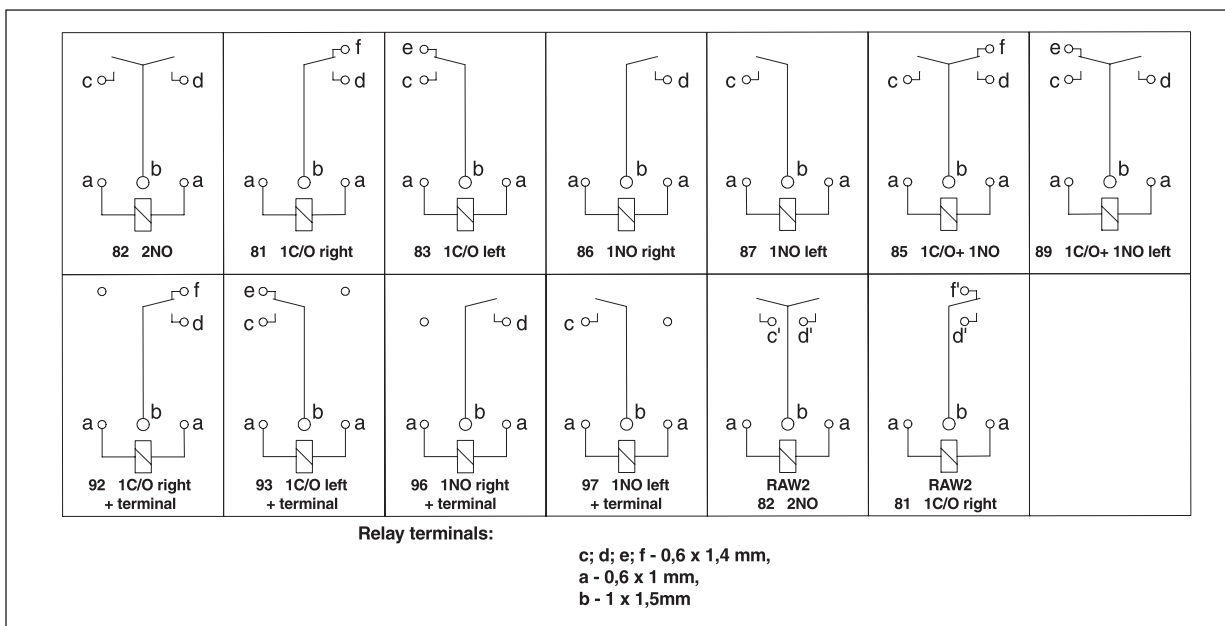
|                                |   |
|--------------------------------|---|
| Operating time (typical value) | 10 ms   |
| Release time (typical value)   | 3 ms  |
| <b>Electrical life</b>         |   |
| • for 1C/O version             | > 10 <sup>5</sup> at 20/12 A (1NO/1NC); 13,5 V DC   |
| • for 1N/O version             | > 10 <sup>5</sup> at 20 A; 13,5 V DC  |
| • for 2N/O version             | > 10 <sup>5</sup> at 2 x 12,5 A; 13,5 V DC  |
| Mechanical life (cycles)       | > 10 <sup>7</sup>   |
| Dimensions (L x W x H)         | 18,6 x 13 x 18,5 mm (IP 00 - without cover)<br>15,3 x 20,5 x 19,7 mm (IP 40 - with cover) |
| Weight                         | 12 g  |
| <b>Ambient temperature</b>     |   |
| • storing                      | -40...+100 °C   |
| • operating                    | -40...+85 °C  |
| Cover protection category      | IP 00 or IP 40  |
| Solder bath temperature        | max. 270 °C   |
| Soldering time                 | max. 5 s  |
| Approvals                      | GOST  |

Coil data

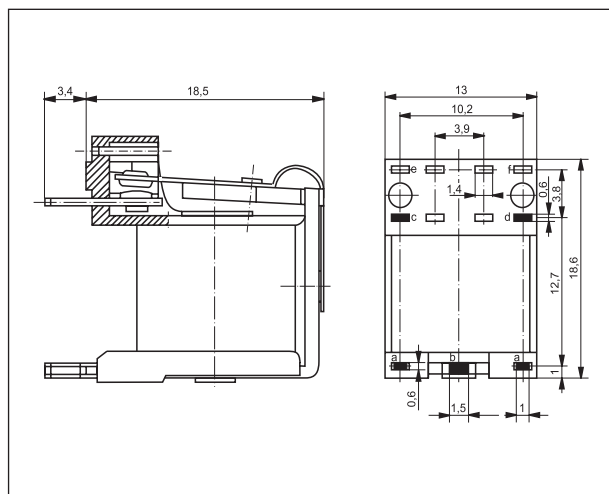
Table 1

| Coil code | Rated voltage<br>V DC | Coil resistance<br>(±10%) at 20 °C | Coil operating range at 85 °C<br>V DC |      |
|-----------|-----------------------|------------------------------------|---------------------------------------|------|
|           |                       |                                    | min.                                  | max. |
| 1005      | 5                     | 18                                 | 4,0                                   | 6,6  |
| 1006      | 6                     | 24                                 | 4,8                                   | 8,0  |
| 1009      | 9                     | 55                                 | 7,2                                   | 12,0 |
| 1012      | 12                    | 100                                | 9,6                                   | 16,0 |
| 1015      | 15                    | 152                                | 12,0                                  | 20,0 |
| 1018      | 18                    | 230                                | 14,4                                  | 23,9 |
| 1024      | 24                    | 390                                | 19,2                                  | 31,9 |
| 1048      | 48                    | 1 590                              | 38,4                                  | 63,8 |

Connections diagram (pin side view)

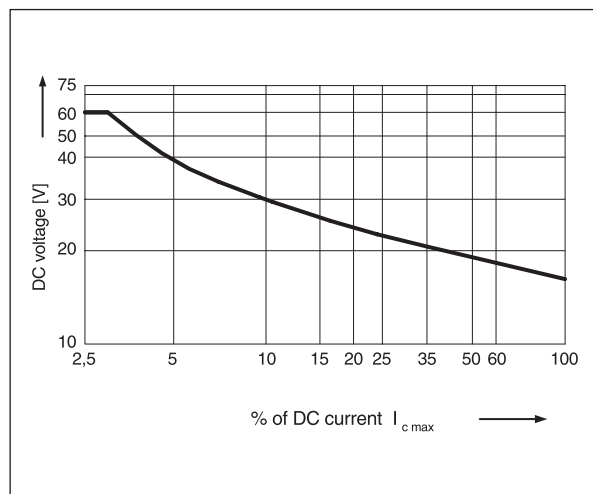


Dimensions



Max. DC resistive load breaking capacity

Fig. 1



**Mounting**

Relays **RA2** are designed for direct PCB mounting.

**Ordering codes**

