



- Cadmium - free contacts
- 16 mm profile
- 5000 V /10 mm reinforced insulation
- PCB and plug-in mounting
- Wide range of accessories
- Coil AC and DC
- Recyclable packing

### Contacts

|                              |            |   |
|------------------------------|------------|---|
| Contact number & arrangement |            | 2C/O, 2NO   |
| Contact material             |            | <b>AgNi</b> , AgNi/Au 5 µm, AgSnO <sub>2</sub>          |
| Max. switching voltage       | AC/DC      | 400 V / 300 V   |
| Min. switching voltage       |            | 5 V AgNi, 5 V AgNi/Au 5 µm, 10 V AgSnO <sub>2</sub>     |
| Rated load                   | AC1<br>DC1 | 8 A / 250 V AC<br>8 A / 24 V DC                         |
| Min. switching current       |            | 5 mA AgNi, 2 mA AgNi/Au 5 µm, 10 mA AgSnO <sub>2</sub>  |
| Max. inrush current          |            | 15 A for 2NO, AgSnO <sub>2</sub>                        |
| Rated current                |            | 8 A   |
| Max. breaking capacity       | AC1        | 2 000 VA  |
| Min. breaking capacity       |            | 0,3 W AgNi, 0,05 W AgNi/Au 5 µm, 1 W AgSnO <sub>2</sub> |
| Resistance                   |            | ≤ 100 mΩ  |
| Max. operating frequency     | AC1        | 600 cycles/hour<br>72 000 cycles/hour                   |
| • at rated load              |            |   |
| • no load                    |            |   |

### Coil

|                                   |                   |                           |
|-----------------------------------|-------------------|---------------------------|
| Rated voltage                     | 50/60 Hz AC<br>DC | 24...240 V<br>3...110 V   |
| Must release voltage              |                   | ≥ 0,1 U <sub>n</sub>      |
| Operating range of supply voltage |                   | see Table 1, 2 and Fig. 4 |
| Rated power consumption           | AC<br>DC          | 0,75 VA<br>0,4...0,48 W   |

### Insulation

|                          |  |            |
|--------------------------|--|------------|
| Insulation category      |  | C250       |
| Insulation rated voltage |  | 400 V AC   |
| Dielectric strength:     |  |            |
| • coil-contact           |  | 5 000 V AC |
| • contact-contact        |  | 1 000 V AC |
| • pole-pole              |  | 2 500 V AC |
| Contact-coil distance    |  |            |
| • clearance              |  | ≥ 10 mm    |
| • creepage               |  | ≥ 10 mm    |

### General data

|                                |  |                                    |
|--------------------------------|--|------------------------------------|
| Operating time (typical value) |  | 7 ms                               |
| Release time (typical value)   |  | 3 ms                               |
| Electrical life                |  |                                    |
| • resistive                    |  | > 10 <sup>5</sup> 8 A, 250 V AC    |
| • cosφ                         |  | see Fig. 2                         |
| • L/R = 40 ms                  |  | > 10 <sup>5</sup> 0,12 A, 220 V DC |
| Mechanical life (cycles)       |  | > 3 x 10 <sup>7</sup>              |
| Dimensions (L x W x H)         |  | 29 x 12,7 x 15,7 mm                |
| Weight                         |  | 14 g                               |
| Ambient temperature            |  |                                    |
| • operating                    |  | -40...+85 °C                       |
| • storing                      |  | -40...+85 °C                       |
| Cover protection category      |  | IP 40 or IP 67                     |
| Shock resistance               |  | 20 g                               |
| Vibration resistance (NC/NO)   |  | 10 g / 5 g 10...150 Hz             |
| Solder bath temperature        |  | max. 270 °C                        |
| Soldering time                 |  | max. 5 s                           |



Coil data - DC version

Table 1

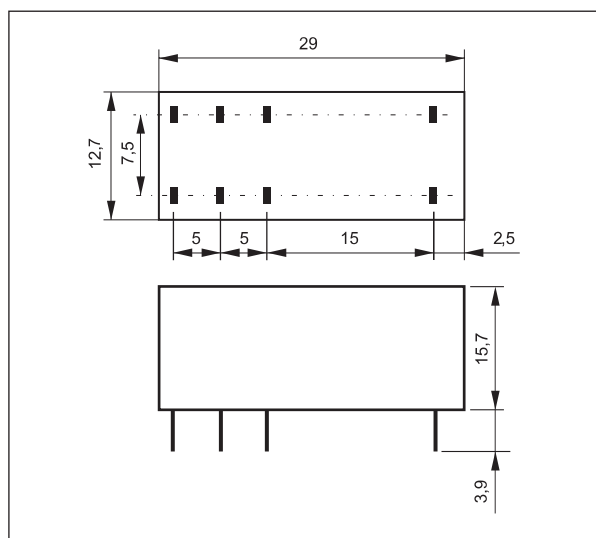
| Coil code | Rated voltage<br>V DC | Coil resistance<br>(±10%) at 20 °C<br>Ω | Coil operating range at 20 °C<br>V DC |       |
|-----------|-----------------------|---|---------------------------------------|-------|
|           |                       |   | min.                                  | max.  |
| 1003      | 3                     | 22                                      | 2,1                                   | 7,6   |
| 1005      | 5                     | 60                                      | 3,5                                   | 12,7  |
| 1006      | 6                     | 90                                      | 4,2                                   | 15,3  |
| 1009      | 9                     | 200                                     | 6,3                                   | 22,9  |
| 1012      | 12                    | 360                                     | 8,4                                   | 30,6  |
| 1018      | 18                    | 710                                     | 12,6                                  | 45,9  |
| 1024      | 24                    | 1 440                                   | 16,8                                  | 61,2  |
| 1036      | 36                    | 3 140                                   | 25,2                                  | 91,8  |
| 1048      | 48                    | 5 700                                   | 33,6                                  | 122,4 |
| 1060      | 60                    | 7 500                                   | 42,0                                  | 153,0 |
| 1110      | 110                   | 25 200                                  | 77,0                                  | 280,0 |

Coil data - AC 50/60 Hz version

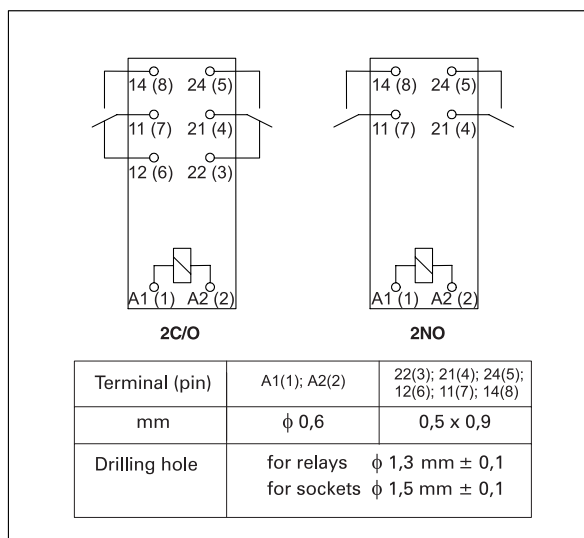
Table 2

| Coil code | Rated voltage<br>V AC | Coil resistance<br>(±10%) at 20 °C<br>Ω | Tolerance<br>of resistance | Coil operating range at 20 °C<br>V AC |       |
|-----------|-----------------------|---|----------------------------|---------------------------------------|-------|
|           |                       |   |                            | min.                                  | max.  |
| 5024      | 24                    | 400                                     | ± 10%                      | 19,2                                  | 28,8  |
| 5048      | 48                    | 1550                                    | ± 10%                      | 38,4                                  | 57,6  |
| 5060      | 60                    | 2600                                    | ± 10%                      | 48,0                                  | 72,0  |
| 5110      | 110                   | 8900                                    | ± 10%                      | 88,0                                  | 132,0 |
| 5115      | 115                   | 9600                                    | ± 10%                      | 92,0                                  | 138,0 |
| 5120      | 120                   | 10200                                   | ± 10%                      | 96,0                                  | 144,0 |
| 5220      | 220                   | 35500                                   | ± 10%                      | 176,0                                 | 264,0 |
| 5230      | 230                   | 38500                                   | ± 10%                      | 184,0                                 | 276,0 |
| 5240      | 240                   | 42500                                   | ± 15%                      | 192,0                                 | 288,0 |

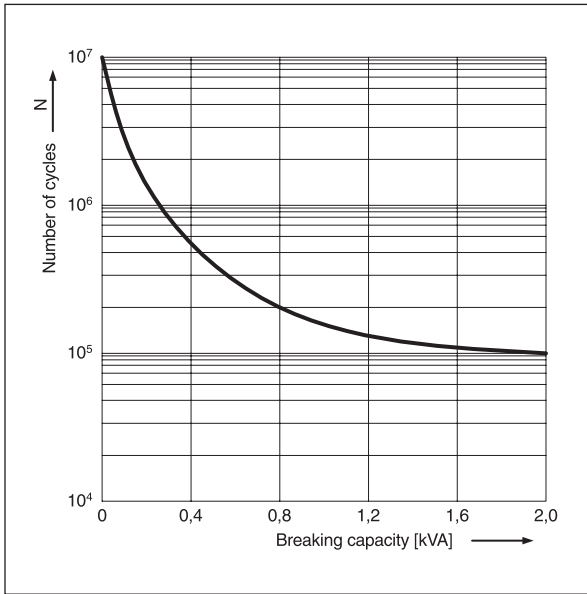
Dimensions



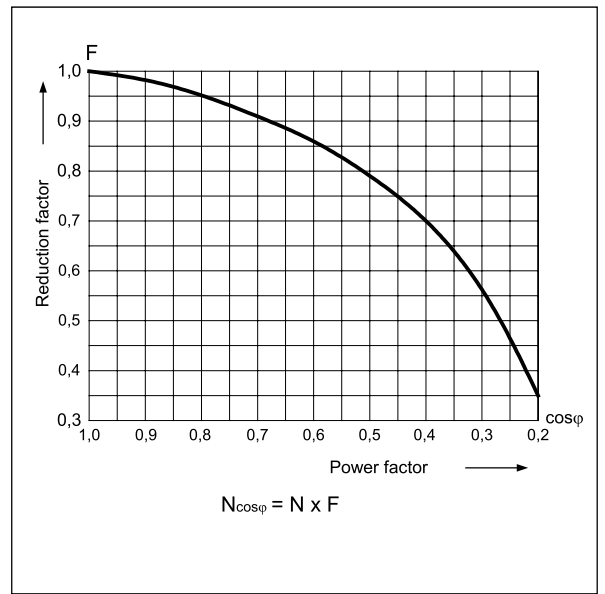
Connections diagrams (pin side view)



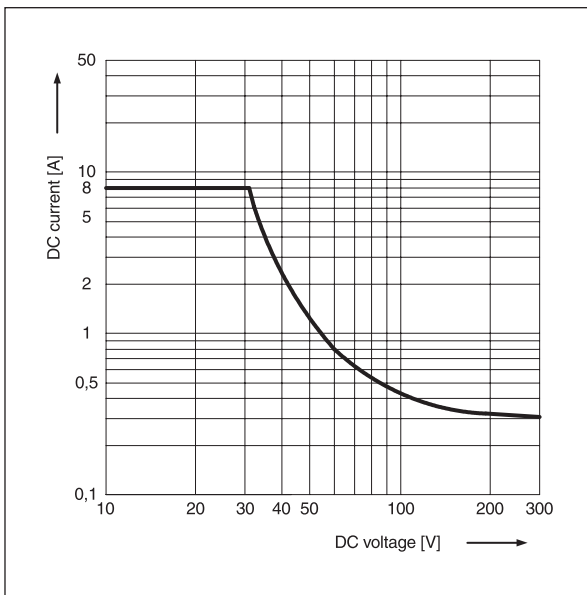
Electrical life at AC resistive load Fig. 1



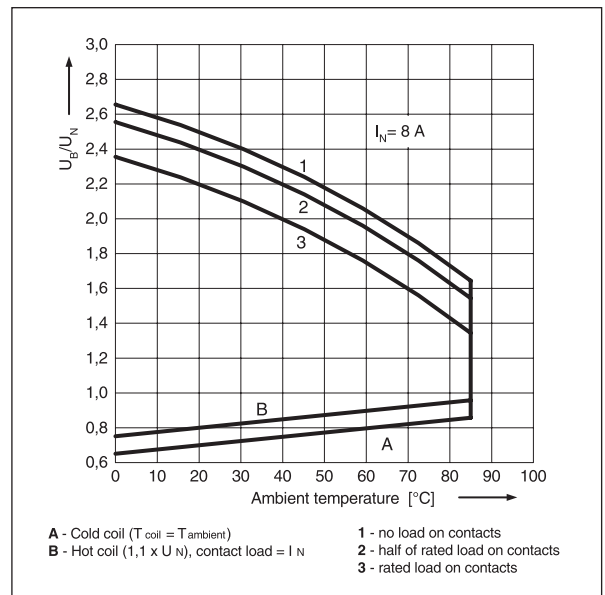
Electrical life reduction factor at AC inductive load Fig. 2



Max. DC resistive load breaking capacity Fig. 3



Coil operating range Fig. 4



**Mounting**

See Tables, pages 132, 133.

**Ordering codes**

