



- General purpose relays
- Plug-in version - 35 mm DIN rail mount, EN 50022
- Panel mounting - faston connections
- Accessories: sockets
- WT - flag indicator and mechanical latching - option
- P type buttons and plugs (no latching) or plugs are available for relays equipped with WT - page 167

### Contacts

|                              |       |                    |
|------------------------------|-------|--------------------|
| Contact number & arrangement |       | 2C/O               |
| Contact material             |       | <b>AgCdO</b>       |
| Max. switching voltage       | AC/DC | 250 V / 250 V      |
| Min. switching voltage       |       | 10 V               |
| Rated load                   | AC1   | 12 A / 250 V AC    |
|                              | DC1   | 12 A / 30 V DC     |
| Min. switching current       |       | 10 mA              |
| Max. inrush current          |       | 20 A               |
| Rated current                |       | 12 A               |
| Max. breaking capacity       | AC1   | 3 000 VA           |
| Min. breaking capacity       |       | 1 W                |
| Resistance                   |       | ≤ 100 mΩ           |
| Max. operating frequency     |       |                    |
| • at rated load              | AC1   | 1 200 cycles/hour  |
| • no load                    |       | 18 000 cycles/hour |

### Coil

|                                   |             |   |
|-----------------------------------|-------------|---|
| Rated voltage                     | 50/60 Hz AC | 6...240 V   |
|                                   | DC          | 5...220 V   |
| Must release voltage              |             | AC: ≥ 0,2 U <sub>n</sub> DC: ≥ 0,1 U <sub>n</sub> |
| Operating range of supply voltage |             | see Table 1, 2                                    |
| Rated power consumption           | AC          | 1,6 VA  |
|                                   | DC          | 0,9 W   |

### Insulation

|                          |  |            |
|--------------------------|--|------------|
| Insulation category      |  | B250       |
| Insulation rated voltage |  | 250 V AC   |
| Dielectric strength      |  |            |
| • coil - contact         |  | 2 500 V AC |
| • contact - contact      |  | 1 000 V AC |
| • pole - pole            |  | 2 500 V AC |
| Contact - coil distance  |  |            |
| • clearance              |  | ≥ 2,6 mm   |
| • creepage               |  | ≥ 4 mm     |

### General data

|                                |  |   |
|--------------------------------|--|---|
| Operating time (typical value) |  | 15 ms   |
| Release time (typical value)   |  | 10 ms   |
| Electrical life                |  |   |
| • resistive AC1                |  | ≥ 10 <sup>5</sup> 12 A, 250 V AC              |
| • cosφ                         |  | see Fig. 2                                    |
| Mechanical life (cycles)       |  | ≥ 10 <sup>7</sup>                             |
| Dimensions (L x W x H)         |  | 27,5 x 21,1 x 34,5 mm ① 27,5 x 21,1 x 37 mm ② |
| Weight                         |  | 35 g  |
| Ambient temperature            |  |   |
| • storing                      |  | -40...+70 °C                                  |
| • operating                    |  | -40...+55 °C                                  |
| Cover protection category      |  | IP 40   |
| Shock resistance               |  | 10 g  |
| Vibration resistance           |  | 5 g 15...150 Hz                               |

Standard contact material marked with bolt type.

① Standard plug-in version (without WT)

② Plug-in version (WT)



Coil data - DC voltage version

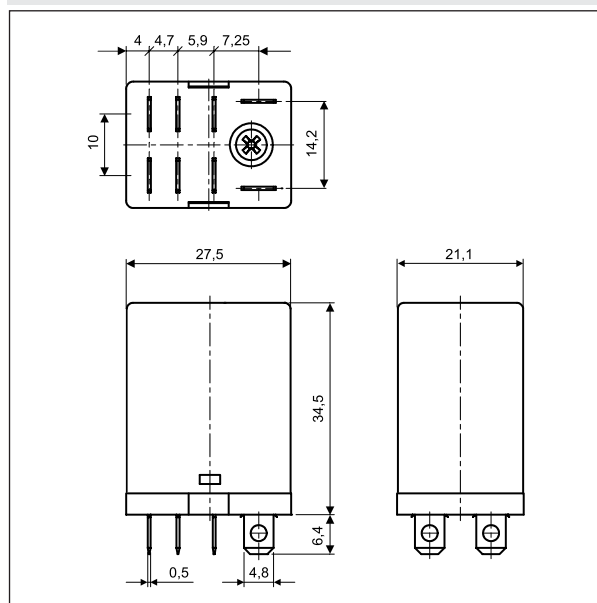
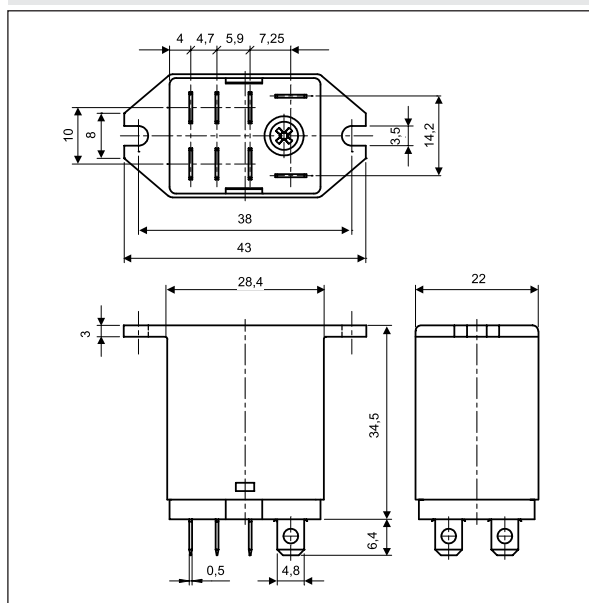
Table 1

| Coil code | Rated voltage<br>V DC | Coil resistance<br>$\pm 10\%$ at 20 °C<br>$\Omega$ | Coil operating range<br>V DC |                |
|-----------|-----------------------|--|------------------------------|----------------|
|           |                       |  | min. (at 20°C)               | max. (at 55°C) |
| 1005      | 5                     | 28   | 4,0                          | 5,5            |
| 1006      | 6                     | 40   | 4,8                          | 6,6            |
| 1012      | 12                    | 160  | 9,6                          | 13,2           |
| 1024      | 24                    | 640  | 19,2                         | 26,4           |
| 1048      | 48                    | 2 600  | 38,4                         | 52,8           |
| 1060      | 60                    | 4 000  | 48,0                         | 66,0           |
| 1080      | 80                    | 7 100  | 64,0                         | 88,0           |
| 1110      | 110                   | 13 600   | 88,0                         | 121,0          |
| 1125      | 125                   | 16 000   | 100,0                        | 137,5          |
| 1220      | 220                   | 54 000   | 176,0                        | 242,0          |

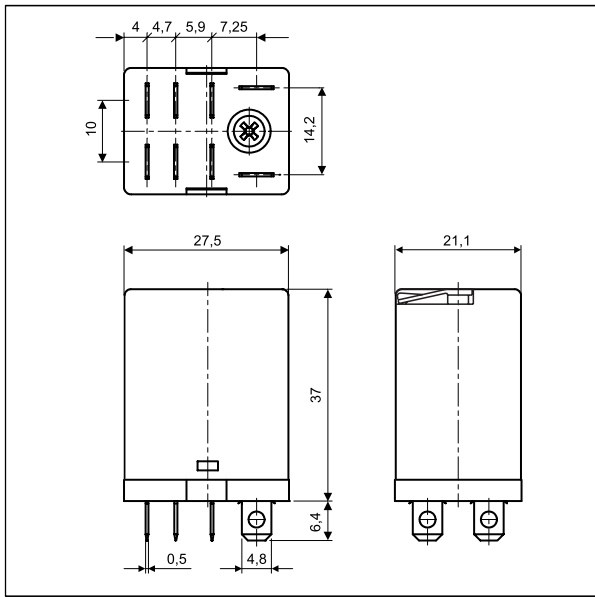
Coil data - AC 50/60 Hz voltage version

Table 2

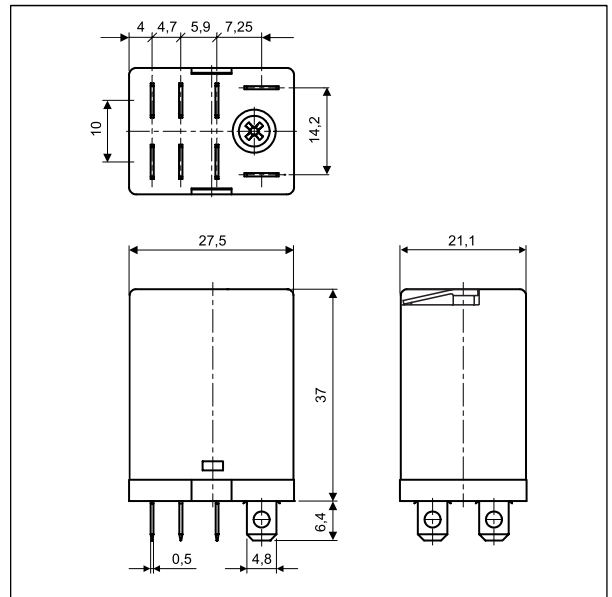
| Coil code | Rated voltage<br>V AC | Coil resistance<br>$\pm 10\%$ at 20 °C<br>$\Omega$ | Coil operating range<br>V AC |                |
|-----------|-----------------------|--|------------------------------|----------------|
|           |                       |  | min. (at 20°C)               | max. (at 55°C) |
| 5006      | 6                     | 9,8  | 4,8                          | 6,6            |
| 5012      | 12                    | 39,5   | 9,6                          | 13,2           |
| 5024      | 24                    | 158,0  | 19,2                         | 26,4           |
| 5042      | 42                    | 470,0  | 33,6                         | 46,2           |
| 5048      | 48                    | 640,0  | 38,4                         | 52,8           |
| 5060      | 60                    | 930,0  | 48,0                         | 66,0           |
| 5080      | 80                    | 1 720,0  | 64,0                         | 88,0           |
| 5110      | 110                   | 3 450,0  | 88,0                         | 121,0          |
| 5120      | 120                   | 3 770,0  | 96,0                         | 132,0          |
| 5127      | 127                   | 4 000,0  | 101,6                        | 139,7          |
| 5220      | 220                   | 15 400,0   | 176,0                        | 242,0          |
| 5230      | 230                   | 16 100,0   | 184,0                        | 253,0          |
| 5240      | 240                   | 16 800,0   | 192,0                        | 264,0          |

Dimensions - plug-in standard version  
(without WT)Dimensions - cover with mounting flange  
(without WT)

**Dimensions - plug-in version (WT), with manual testing/latching lever type T**

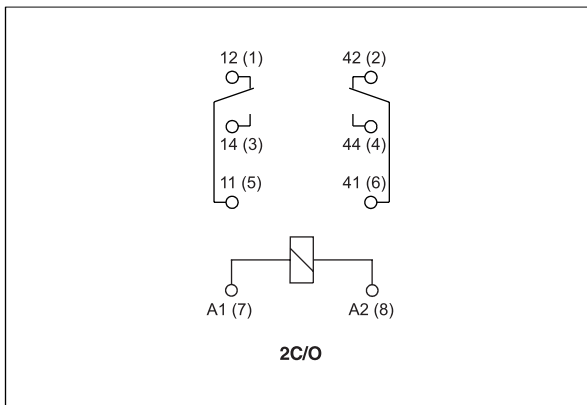


**Dimensions - plug-in version (WT), with P type buttons and plugs or plugs**



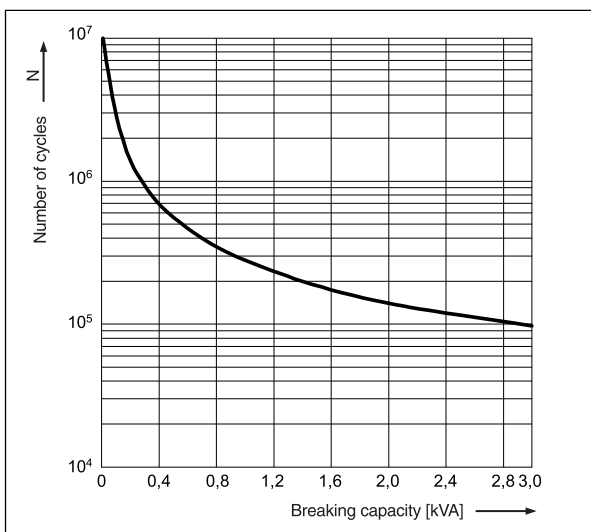
**P type buttons and plugs and plugs need to ordered separately.**  
Exchange of the buttons is done by Customer.  
Information on P type buttons and plugs and plugs on page 167.

**Connections diagram (pin side view)**



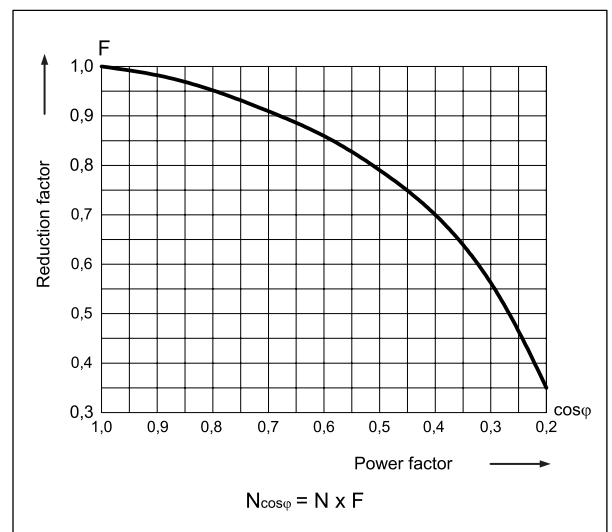
**Electrical life at AC resistive load**

Fig. 1



**Electrical life reduction factor at AC inductive load**

Fig. 2

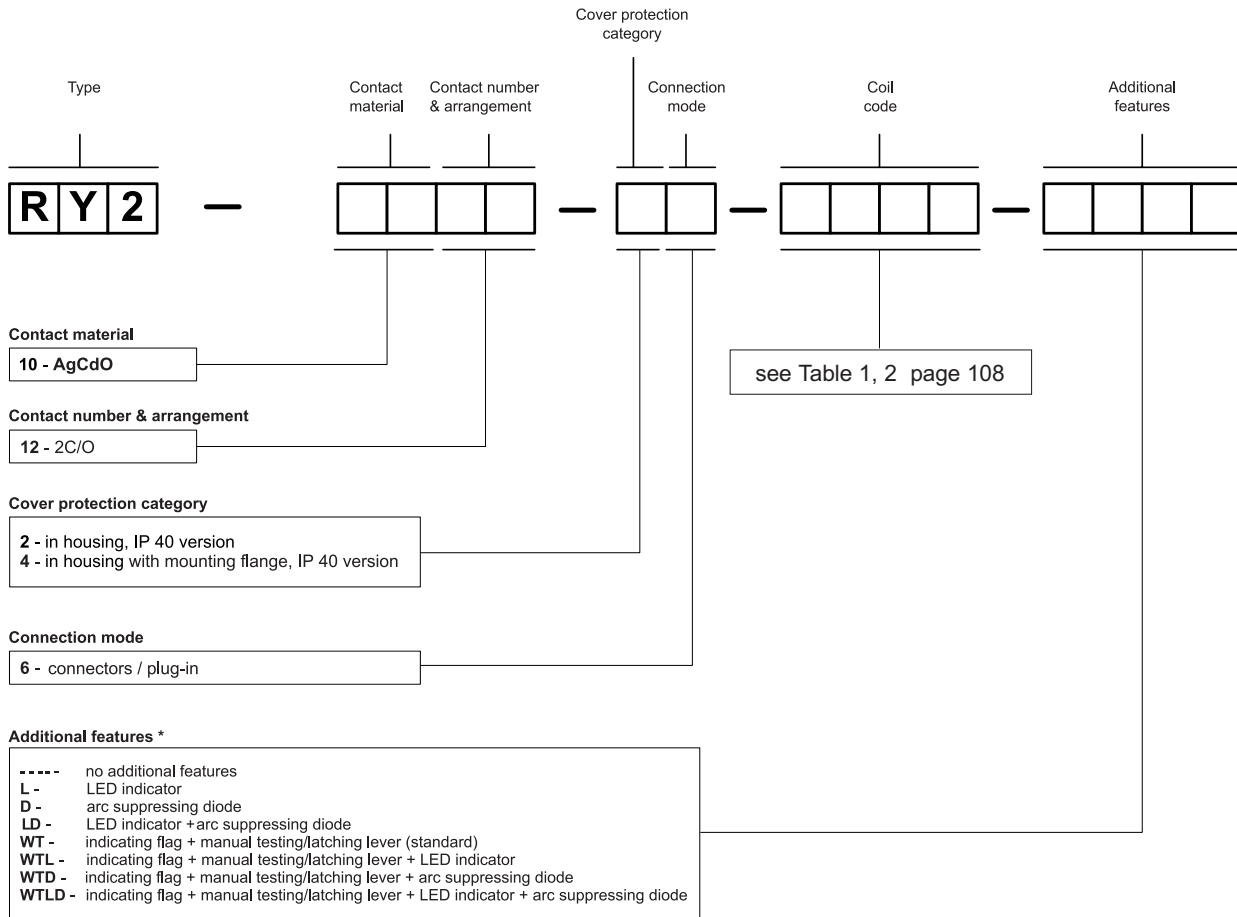


**Mounting**

R Y 2 relays are offered in versions: • standard, plug-in version (without WT) • plug-in version with flag indicator and mechanical latching (WT). **Customer may exchange T type button with P type button (no latching) or with plug (no mechanical operation). P type buttons and plugs and plugs need to ordered separately** • with mounting flange (without WT).

Relays R Y 2 are designed for: • screw terminals sockets G Z Y 2 with clip G Z Y 2000, 35 mm DIN rail mount, EN 50022 or on panel mounting • faston connector.

**Ordering codes**



\* D, LD, WTD, WTLD - only for DC coils

**P type buttons and plugs and plugs** ordered separately for substitution of T type button by Customers themselves:

- Button P R4 AC - orange (coils AC)
- Button P R4 DC - green (coils DC)
- Plug R4 AC - orange (coils AC)
- Plug R4 DC - green (coils DC)

Information on P type buttons and plugs and plugs on page 167.

