



- WT - standard plug-in version with indicating flag and manual testing/latching lever
- Miniature size
- Cadmium - free contacts available
- Coil AC and DC
- Plug-in version - rail mount TH35, EN 50022
- Plug-in, solder, PCB versions available
- General purpose relays

### Contacts

Contact number & arrangement		2C/O
Contact material		AgCdO, AgNi, AgNi/Au 0,2 µm, AgNi/Au 5 µm
<b>Voltage</b>		
Max. switching voltage AC/DC		250 V / 250 V
Min. switching voltage		5 V (AgCdO) 5 V (AgNi, AgNi/Au 0,2 µm, AgNi/Au 5 µm)
<b>Current</b>		
Rated load	AC1	12 A / 250 V AC - plug-in version 10 A / 250 V AC - PCB version
	DC1	12 A / 24 V DC - plug-in version 10 A / 250 V DC - PCB version
Min. switching current		5 mA (AgNi, AgNi/Au 0,2 µm); 50 mA (AgCdO) 1 mA (AgNi/Au 5 µm)
Max. inrush current		24 A
Rated current		12 A - plug-in version 10 A - PCB version
Max. breaking capacity	AC1	3 000 VA - plug-in version 2 500 VA - PCB version
Min. breaking capacity		0,1 W (AgNi/Au 5 µm); 0,3 W (AgNi, AgNi/Au 0,2 µm) 0,5 W (AgCdO)
Resistance		≤ 100 mΩ at 100 mA, 24 V
<b>Max. operating frequency</b>		
• at rated load	AC1	1 200 cycles/hour
• no load		18 000 cycles/hour

### Coil

<b>Voltage</b>		
Rated voltage		5...220 V DC 6...240 V AC 50 Hz
Must release voltage		≥ 0,1 U <sub>n</sub> DC; ≥ 0,2 U <sub>n</sub> AC
Operating range of supply voltage		see Tables 1, 2
Rated power consumption		0,9 W DC; 1,6 VA AC

### Insulation

Insulation category		C250
<b>Voltage</b>		
Insulation rated voltage		250 V AC
Dielectric strength		
• coil-contact		2 500 V AC
• contact-contact		1 500 V AC
• pole-pole		2 500 V AC
<b>Contact-coil distance</b>		
• clearance		≥ 2,5 mm
• creepage		≥ 4 mm

### General data

Operating time (typical value)		10 ms AC; 13 ms DC
Release time (typical value)		8 ms AC; 3 ms DC
<b>Electrical life</b>		
• resistive		≥ 10 <sup>5</sup> at 12 A, 250 V AC
• cos φ		see Fig. 2
Mechanical life (cycles)		≥ 2 x10 <sup>7</sup>
Dimensions (L x W x H)		27,5 x 21,2 x 35,6 mm - plug-in standard version (WT) 27,5 x 21,2 x 33 mm - PCB version and version with threaded bolt
Weight		35 g
<b>Ambient temperature</b>		
• storing		-40...+85 °C
• operating		AC: -40...+55 °C; DC: -40...+70 °C
Cover protection category		IP 40
Shock resistance		10 g (NO); 5 g (NC)
Vibration resistance		5 g for 10...150 Hz
Solder bath temperature		max. 270 °C
Soldering time		max. 5 s
Approvals		B, cUL, UL, VDE, GOST

Coil data - DC version

Table 1

Coil code	Rated voltage V DC	Coil resistance ( $\pm 10\%$ ) at 20 °C	Coil operating range 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

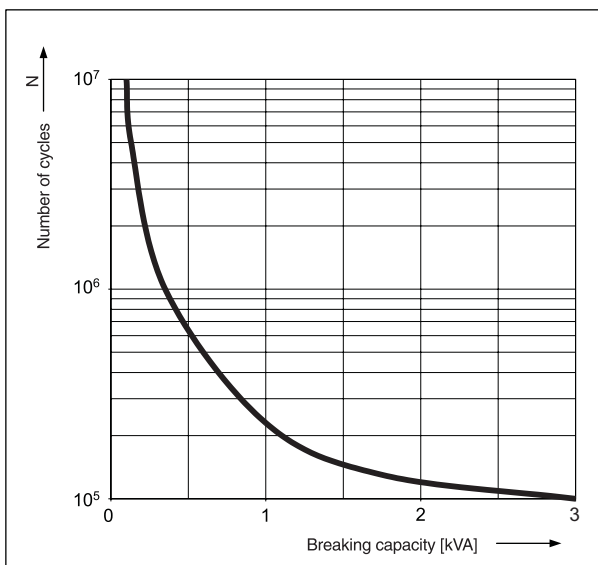
Coil data - AC 50 Hz version

Table 2

Coil code	Rated voltage V AC	Coil resistance ( $\pm 10\%$ ) at 20 °C $\Omega$	Coil operating range V AC	
			min. (at 20 °C)	max. (at 55 °C)
3006	6	12	4,8	6,6
3012	12	50	9,6	13,2
3024	24	190	19,2	26,4
3042	42	565	33,6	46,2
3048	48	785	38,4	52,8
3060	60	1 240	48,0	66,0
3080	80	2 190	64,0	88,0
3110	110	3 880	88,0	121,0
3120	120	4 150	96,0	132,0
3127	127	4 940	101,6	139,0
3220	220	16 300	176,0	242,0
3230	230/240	17 400	184,0	253,0

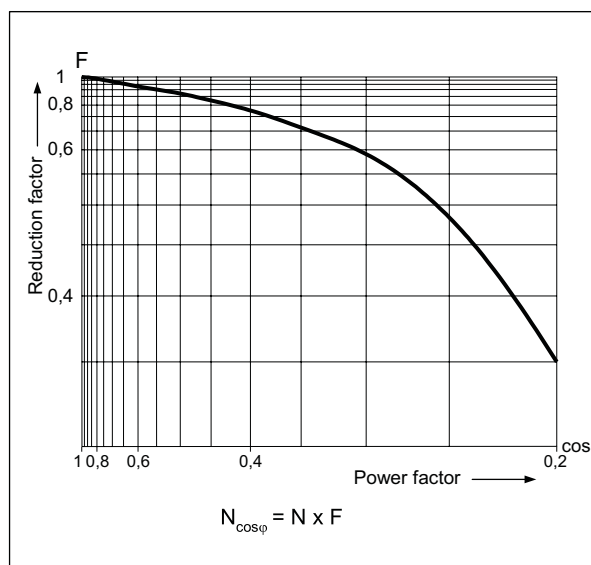
Electrical life at AC resistive load

Fig. 1



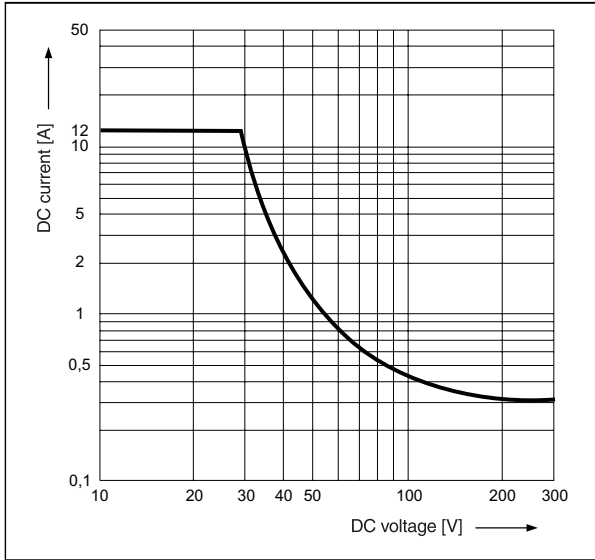
Electrical life reduction factor at AC inductive load

Fig. 2

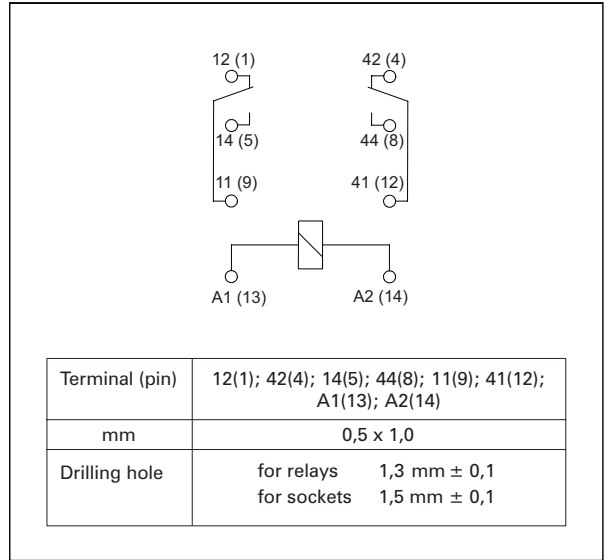


**Maximum DC resistive load breaking capacity**

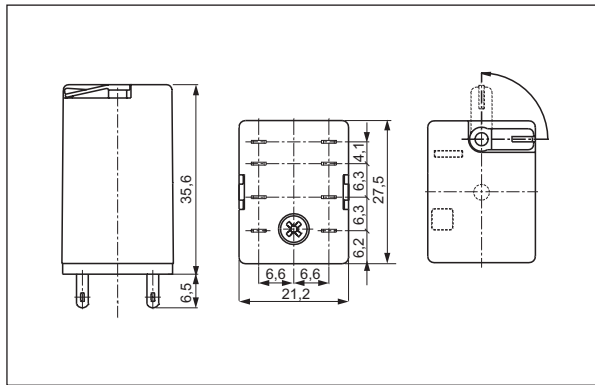
Fig. 3



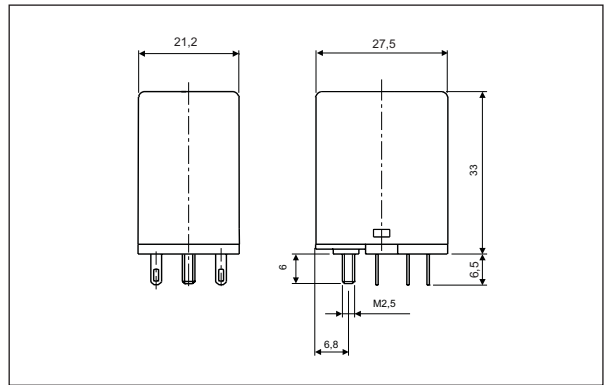
**Connections diagram (pin side view)**



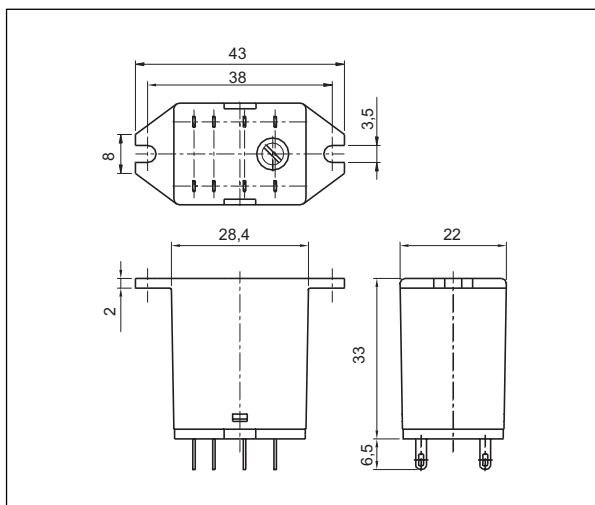
**Dimensions - plug-in version (WT), with manual testing/latching lever**



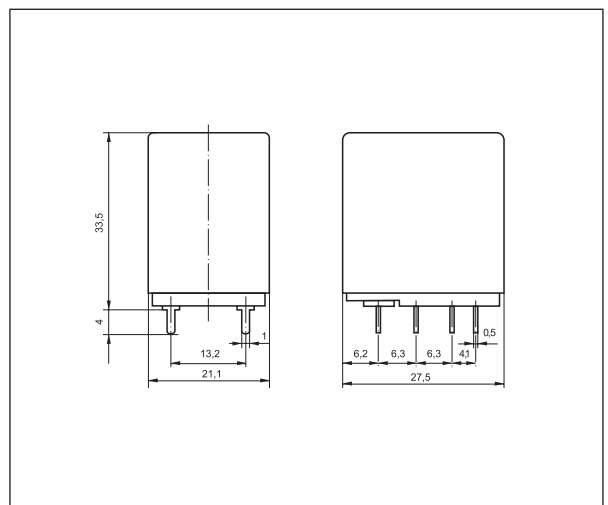
**Dimensions - version with threaded bolt (without WT)**



**Dimensions - version with cover equipped with mounting flange (without WT)**



**Dimensions - PCB version (without WT)**

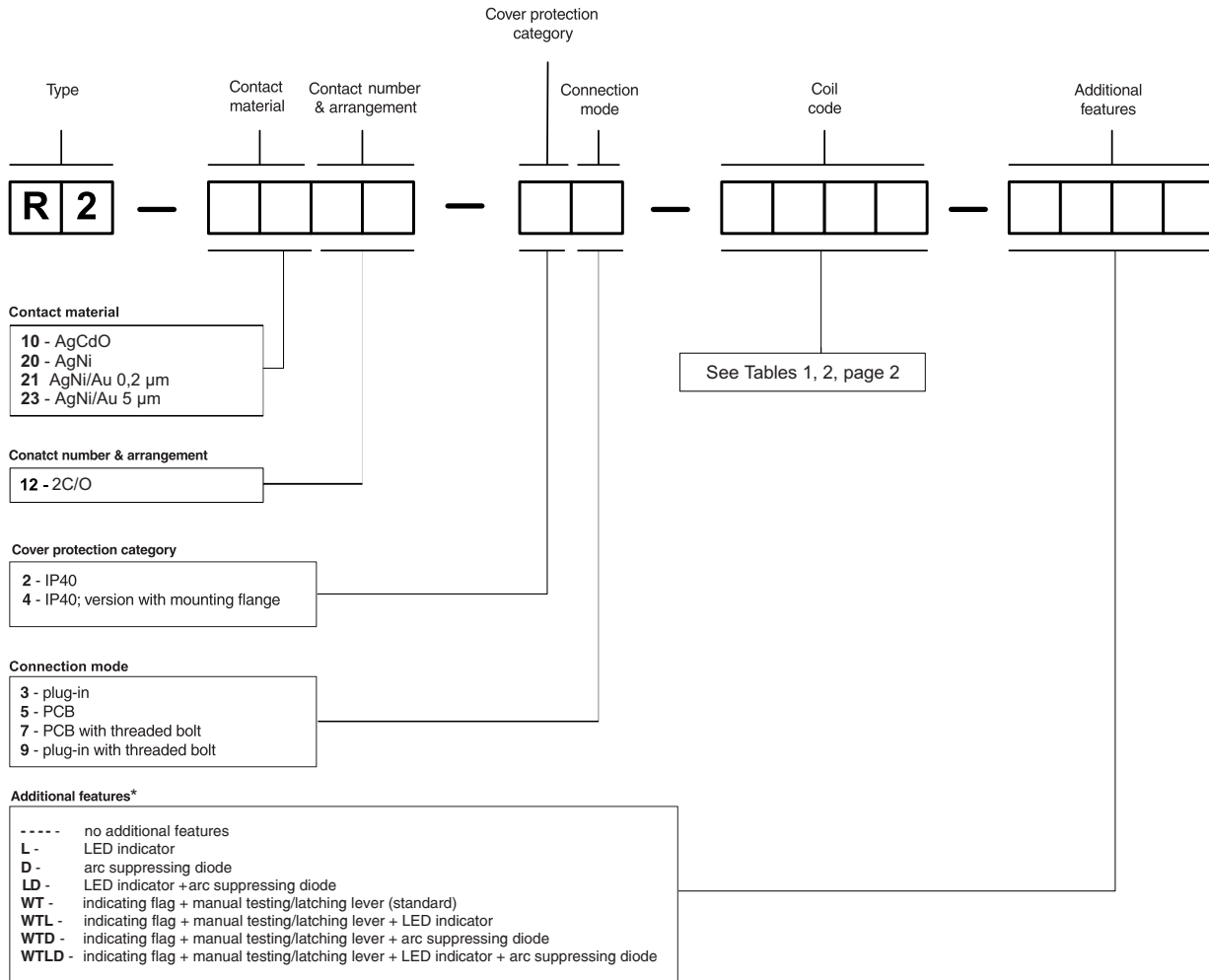


## Mounting

Relays **R2** are designed for:

- screw terminals sockets **GZT2** (modules and clips available) and **GZR2** - for DIN rail mounting,
- PCB terminals sockets **SU4/2D** - for PCB mounting,,
- solder terminals sockets **SU4/2L** and **G4/2**,
- direct PCB mounting.

## Ordering codes



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

WT - standard features plug-in power relays