

**10 A / 250 V AC**

- 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 - 35 mm DIN rail mount, EN 50022 or on panel mounting
- General purpose relays
- Relays may be provided with the P type test buttons as well as plugs instead for T type buttons - page 167

Contacts

Contact number & arrangement		3C/O
Contact material		AgNi , AgNi/Au 0,2 µm, AgNi/Au 5 µm
Max. switching voltage	AC/DC	250 V / 250 V
Min. switching voltage		5 V
Rated load	AC1	10 A / 250 V AC
	DC1	10 A / 24 V DC
Min. switching current		5 mA AgNi, 5 mA AgNi/Au 0,2 µm, 2 mA AgNi/Au 5 µm
Max. inrush current		20 A
Rated current		10 A
Max. breaking capacity	AC1	2 500 VA
Min. breaking capacity		0,3 W AgNi, 0,3 W AgNi/Au 0,2 µm, 0,1 W AgNi/Au 5 µm
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 _n DC: ≥ 0,1 U _n
Operating range of supply voltage		see Table 1, 2
Rated power consumption	AC	1,6 VA
	DC	0,9 W

Insulation

Insulation category		C250
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
Contact - coil distance		
• clearance		≥ 2,5 mm
• creepage		≥ 4 mm

General data

Operating time (typical value)		AC: 10 ms	DC: 13 ms
Release time (typical value)		AC: 8 ms	DC: 3 ms
Electrical life			
• resistive AC1		≥ 10 ⁵ 10 A, 250 V AC	
• cosφ		see Fig. 2	
Mechanical life (cycles)		≥ 2 x 10 ⁷	
Dimensions (L x W x H)		27,5 x 21,2 x 35,6 mm ①	27,5 x 21,2 x 33 mm ②
Weight		35 g	
Ambient temperature			
• storing		-40...+85 °C	
• operating		AC: -40...+55 °C	DC: -40...+70 °C
Cover protection category		IP 40	
Shock resistance	(NO/NC)	10 g / 5 g	
Vibration resistance		5 g 10...150 Hz	
Solder bath temperature		max. 270 °C	
Soldering time		max. 5 s	

Standard contact material marked with bolt type.

① WT - standard plug-in version ② Version with threaded bolt



Coil data - DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance (±10%) at 20 °C Ω	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

Standard coil rated voltages marked with bold type.

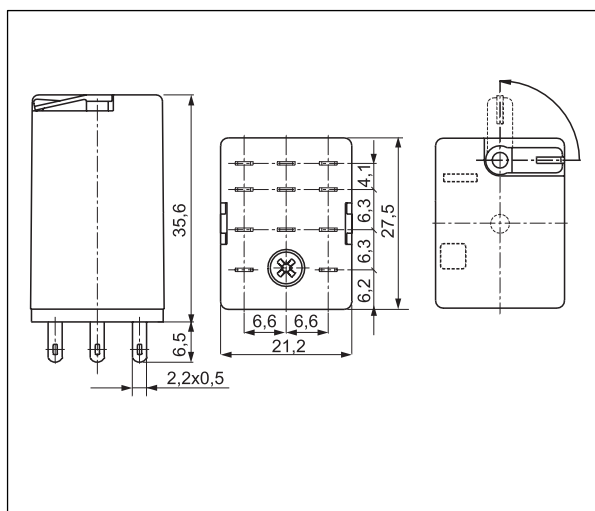
Coil data - AC 50/60 Hz voltage version

Table 2

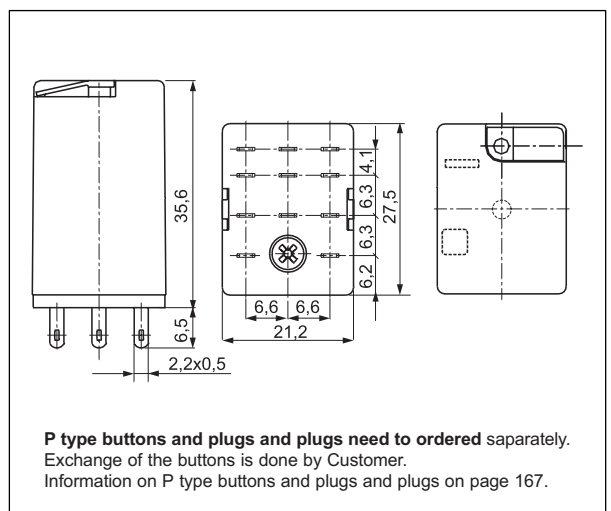
Coil code	Rated voltage V AC	Coil resistance (±10%) at 20 °C Ω	Coil operating range V AC	
			min. (at 20 °C)	max. (at 55 °C)
5006	6	9,8	4,8	6,6
5012	12	39,5	9,6	13,2
5024	24	158,0	19,2	26,4
5042	42	470,0	33,6	46,2
5048	48	640,0	38,4	52,8
5060	60	930,0	48,0	66,0
5080	80	1 720,0	64,0	88,0
5110	110	3 450,0	88,0	121,0
5120	120	3 770,0	96,0	132,0
5127	127	4 000,0	101,6	139,0
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

Standard coil rated voltages marked with bold type.

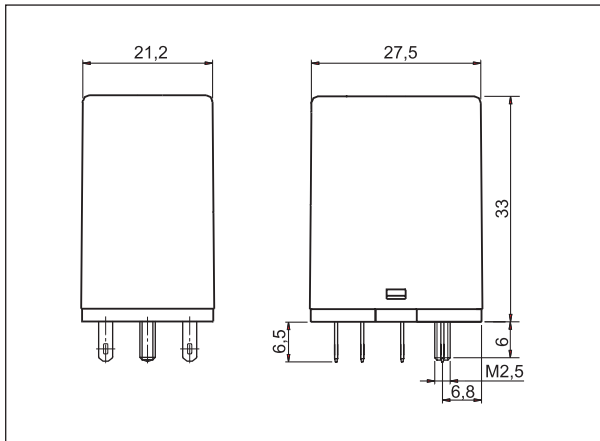
**Dimensions - plug-in version (WT),
with manual testing/latching lever type T**



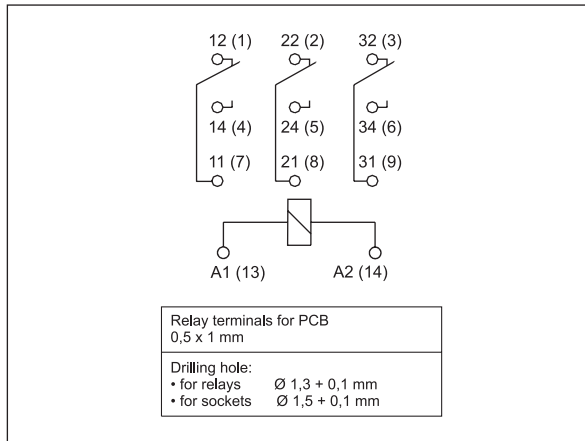
**Dimensions - plug-in version (WT),
with P type buttons and plugs or plugs**



Dimensions - version with threaded bolt

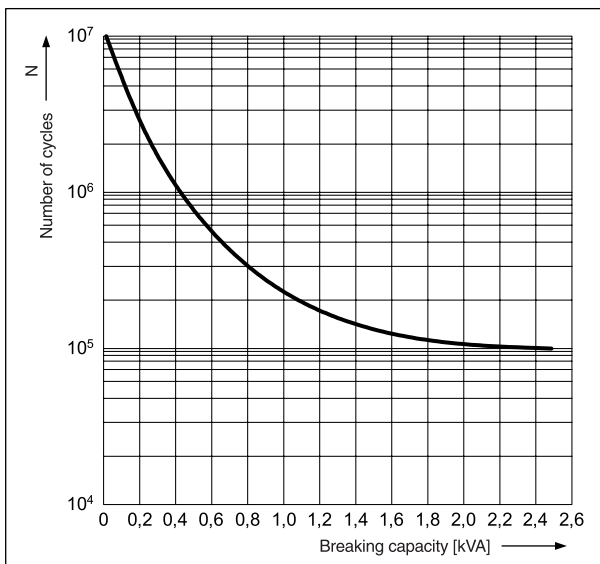


Connections diagram (pin side view)



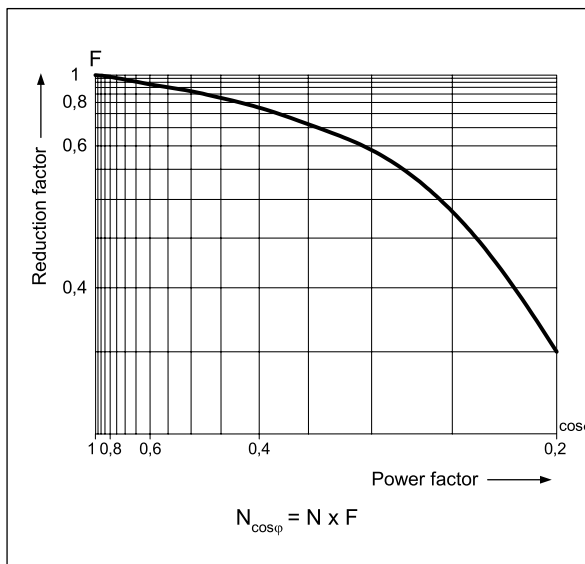
Electrical life at AC resistive load

Fig. 1



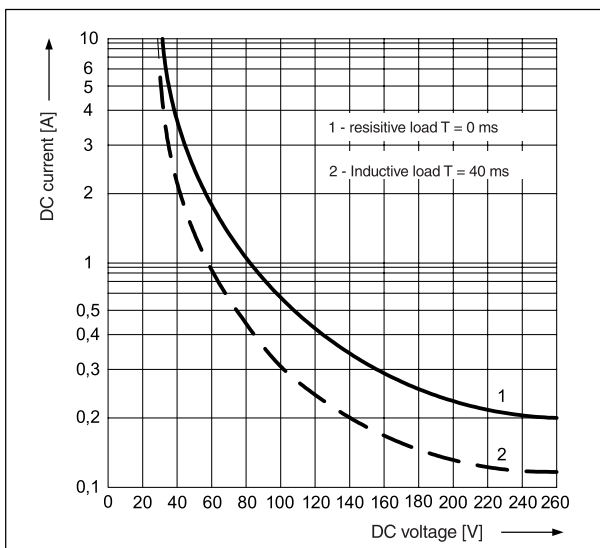
Electrical life reduction factor at AC inductive load

Fig. 2



Maximum DC resistive load breaking capacity

Fig. 3



Mounting

R3 relays are offered in versions: • standard, 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 threaded bolt.

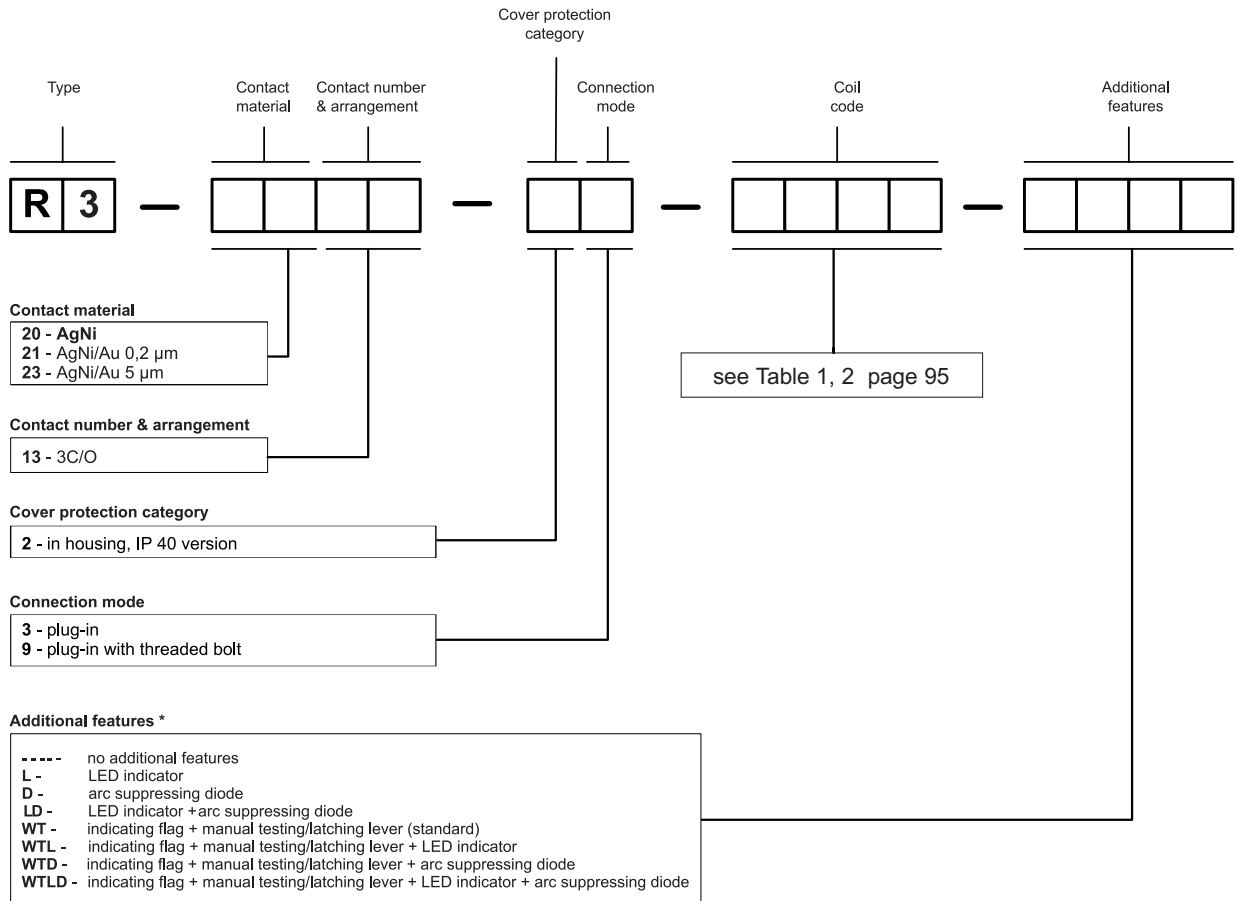
Relays R3 are designed for: • screw terminals sockets **GZT3** and **GZM3** with clip **GZT4-0040** or **G4 1052**, 35 mm DIN rail mount, EN 50022 or on panel mounting. **M...** type signalling and protection plug-in modules are available with sockets (see page 170).



Contact material selection for different load types

- **AgNi** - for resistive or inductive loads,
- **AgNi/Au 0,2 µm** - contact surface protection against oxidation during storage,
- **AgNi/Au 5 µm** - for small resistive loads in control circuits.

Ordering codes



*** WT - standard features plug-in power relays**

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.

Note:

DC coil polarity for versions equipped with D (arc suppression diode) and L (LED) is fixed.

Terminal A1 (13) "+"; terminal A2 (14) "-".

Supply polarity is marked on relay housing.

Button color represents type of supply: orange for AC coil, green for DC coil.

