- General purpose relays
- Plug-in version - 35 mm DIN rail mount, EN 50022
- For PCB and soldering connections
- Coil AC and DC

Contacts

Contact number & arrangement		2C/O
Contact material		**AgNi**, AgNi/Au 0,2 µm, $AgSnO_2$
Max. switching voltage	AC/DC	250 V / 250 V
Min. switching voltage		5 V AgNi, 5 V AgNi/Au 0,2 µm, 10 V $AgSnO_2$
Rated load	AC1	5 A / 250 V AC
	DC1	5 A / 24 V DC
Min. switching current		5 mA AgNi, 5 mA AgNi/Au 0,2 µm, 10 mA $AgSnO_2$
Rated current		5 A
Max. breaking capacity	AC1	1 250 VA
Min. breaking capacity		0,3 W AgNi, 0,3 W AgNi/Au 0,2 µm, 1 W $AgSnO_2$
Resistance		≤ 100 mΩ
Max. operating frequency		
• at rated load	AC1	1 200 cycles/hour
• no load		36 000 cycles/hour

Coil

Rated voltage	50/60 Hz AC	6...240 V
	DC	6...110 V
Must release voltage		≥ 0,1 U_n
Operating range of supply voltage		see Table 1, 2
Rated power consumption	AC	1,2 VA
	DC	0,9 W

Insulation

Insulation category	C250
Insulation rated voltage	400 V AC
Dielectric strength	
• coil - contact	2 000 V AC
• contact - contact	1 000 V AC
• pole - pole	2 000 V AC
Contact - coil distance	
• clearance	≥ 3 mm
• creepage	≥ 4 mm

General data

Operating time (typical value)	AC: 8 ms DC: 10 ms
Release time (typical value)	AC: 7 ms DC: 3 ms
Electrical life	
• resistive AC1	≥ 2 x 10^5 5 A, 250 V AC
• cosϕ	see Fig. 2
Mechanical life (cycles)	≥ 10^7
Dimensions (L x W x H)	27,5 x 14 x 32,9 mm
Weight	22 g
Ambient temperature	
• storing	-40...+70 °C
• operating	-40...+55 °C
Cover protection category	IP 40
Shock resistance	10 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.
Note: Relays with AgNi contacts can be used up to 5 A at resistive and inductive loads.

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)
1006	6	47	4,8	6,6
1012	**12**	**188**	**9,6**	**13,2**
1024	**24**	**750**	**19,2**	**26,4**
1048	48	2 660	38,4	52,8
1060	60	4 000	48,0	66,0
1080	80	7 100	64,0	88,0
1110	110	13 480	88,0	121,0

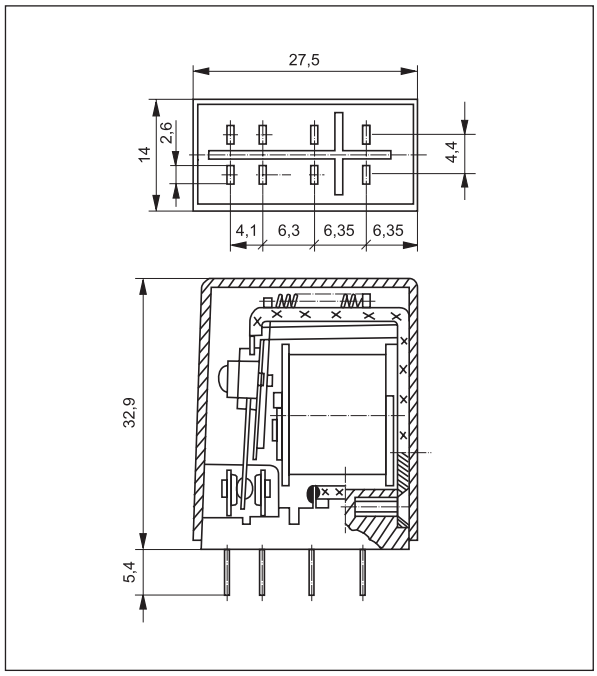
Standard coil rated voltages marked with bold type.

Coil data - AC 50/60 Hz voltage version Table 2

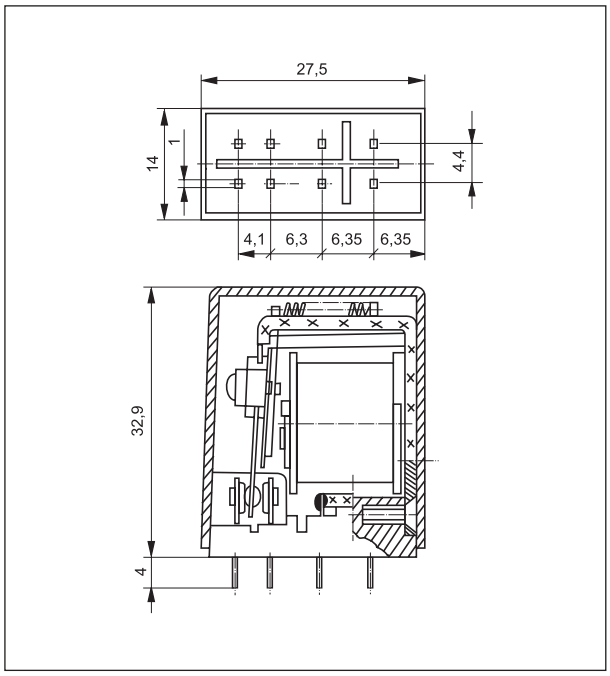
Coil code	Rated voltage V AC	Coil resistance ±10% at 20 °C Ω	Coil operating range V AC	
			min. (at 20°C)	max. (at 55°C)
5006	6	16	4,8	6,6
5012	12	68	9,6	13,2
5024	**24**	**270**	**19,2**	**26,4**
5050	50	1 150	40,0	55,0
5100	100	5 590	80,0	110,0
5110	110	5 670	88,0	121,0
5115	115	5 990	92,0	126,0
5120	120	6 390	96,0	132,0
5220	220	21 470	176,0	242,0
5230	**230**	**21 470**	**184,0**	**253,0**
5240	240	25 390	192,0	264,0

Standard coil rated voltages marked with bold type.

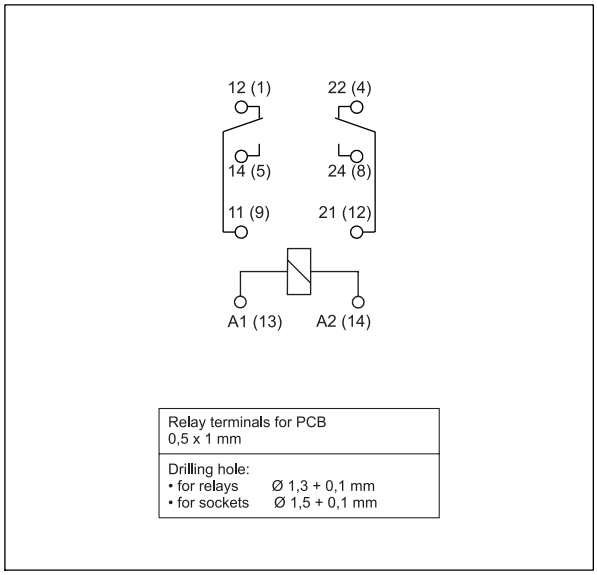
Dimensions - plug-in version



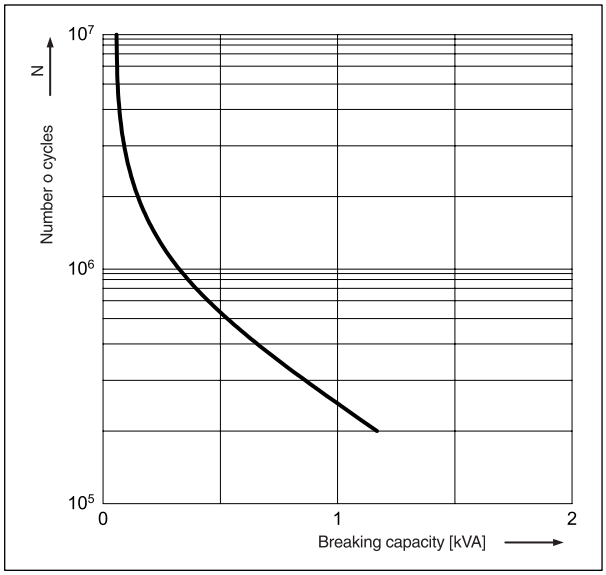
Dimensions - PCB version



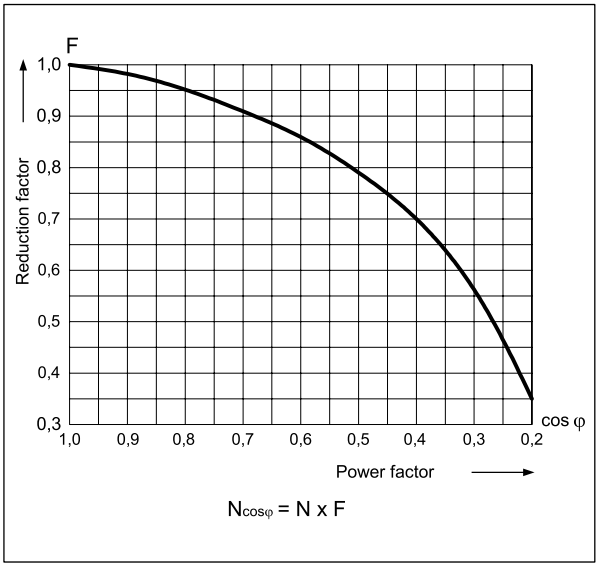
Connections diagram (pin side view)



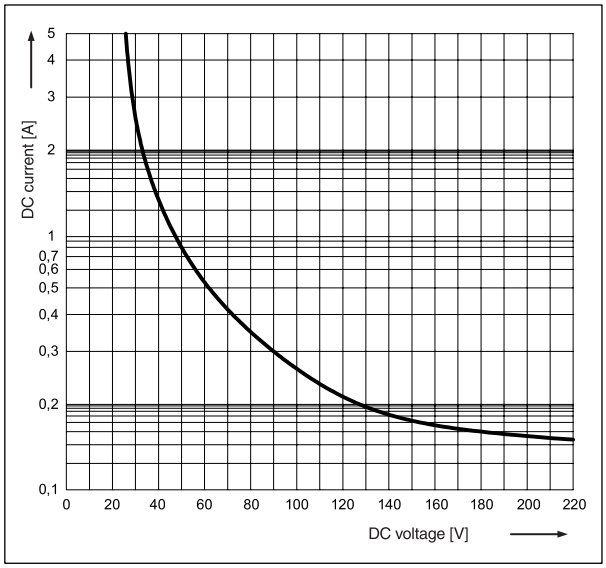
Electrical life at AC reductive load Fig. 1



Electrical life reduction factor at AC inductive load Fig. 2



Max. DC resistive load breaking capacity Fig. 3



Mounting

Relays **R2M** are designed for: • screw terminals sockets **GZ2** with clip **GZ2 1060** and spring clamp **GZ2 1111**, 35 mm DIN rail mount, EN 50022 or on panel mounting • terminals sockets for PCB mounting **S2M** with clip **G4 1050** • solder terminals sockets **G2M** with clip **G4 1050** and spring clamp **G2M 1020** • direct PCB mounting.

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,
- **$AgSnO_2$** - for capacitive loads or bulb loads.

Ordering codes