



- Miniature size
- General purpose relays
- High inrush current - lamp load 120 A / 20 ms (AgSnO₂ contacts)
- 110 V sensitive coil available
- Protection category IP 40
- For PCB and sockets
- Accessories: sockets and modules

Contacts

Contact number & arrangement		1C/O, 1NO, 1NC
Contact material		AgCdO , AgCdO/Au 0,2 μm, AgSnO ₂
Max. switching voltage	AC/DC	400 V / 300 V
Min. switching voltage		10 V AgCdO, 10 V AgCdO/Au 0,2 μm, 10 V AgSnO ₂
Rated load	AC1 DC1	16 A / 250 V AC 16 A / 24 V DC
Min. switching current		5 mA AgCdO, 5 mA AgCdO/Au 0,2 μm, 10 mA AgSnO ₂
Max. inrush current		30 A 1NO, AgSnO ₂
Rated current		16 A
Max. breaking capacity	AC1	4 000 VA
Min. breaking capacity		0,5 W AgCdO, 0,5 W AgCdO/Au 0,2 μm, 1 W AgSnO ₂
Resistance		≤ 100 mΩ
Max. operating frequency		
• at rated load	AC1	600 cycles/hour
• no load		72 000 cycles/hour

Coil

Rated voltage	DC	5...110 V standard version 110 V sensitive version
Must release voltage		DC: ≥ 0,1 U _n
Operating range of supply voltage		see Table 1
Rated power consumption	DC	0,6 W 5...60 V standard version 0,6 W 110 V sensitive version 0,9 W 110 V standard version

Insulation

Insulation category		C250
Insulation rated voltage		400 V AC
Dielectric strength		
• coil - contact		4 000 V AC
• contact - contact		1 000 V AC
Contact - coil distance		
• clearance		≥ 8 mm
• creepage		≥ 8 mm

General data

Operating time (typical value)		7 ms
Release time (typical value)		3 ms
Electrical life		
• resistive AC1		> 10 ⁵ 16 A, 250 V AC
• lamp load		> 10 ⁵ 1000 W, 230 V AC 1NO, AgSnO ₂
		> 3 x 10 ⁴ 3000 W, 230 V AC 1NO, AgSnO ₂
• halogen lamp load		> 10 ⁴ 2500 W, 230 V AC 1NO, AgSnO ₂
• cos φ		see Fig. 2
• L/R=40 ms		> 10 ⁵ 0,12 A, 220 V DC
Mechanical life (cycles)		> 3 x 10 ⁷
Dimensions (L x W x H)		29,5 x 13,1 x 25,5 mm
Weight		18 g
Ambient temperature	• storing • operating	-40...+85 °C -40...+70 °C
Cover protection category		IP 40
Shock resistance		20 g
Vibration resistance		10 g 10...150 Hz
Solder bath temperature		max. 270 °C
Soldering time		max. 5 s

Standard contact material marked with bolt type.



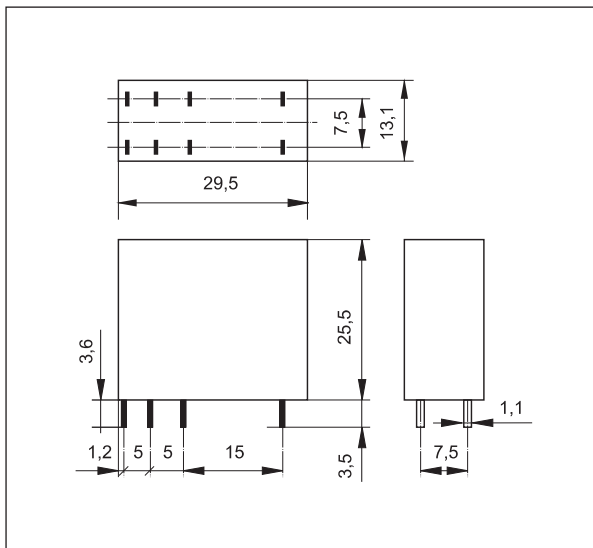
Coil data - DC voltage version

Table 1

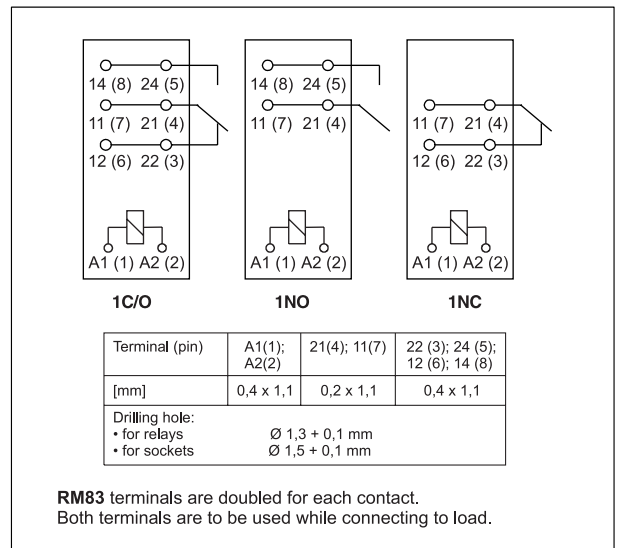
Coil code	Rated voltage V DC	Coil resistance ±10% at 20 °C Ω	Coil operating range at 20 °C V DC	
			min.	max.
1005	5	49	3,5	8,9
1006	6	68	4,2	10,6
1009	9	110	6,3	15,9
1012	12	260	8,4	21,2
1018	18	550	12,6	31,8
1024	24	1 100	16,8	42,5
1036	36	2 100	25,2	63,7
1048	48	4 400	33,6	85,0
1060	60	7 000	42,0	106,2
1110	110	13 000	77,0	140,0
S110	110	20 500	77,0	188,0

Standard coil rated voltages marked with bold type.

Dimensions

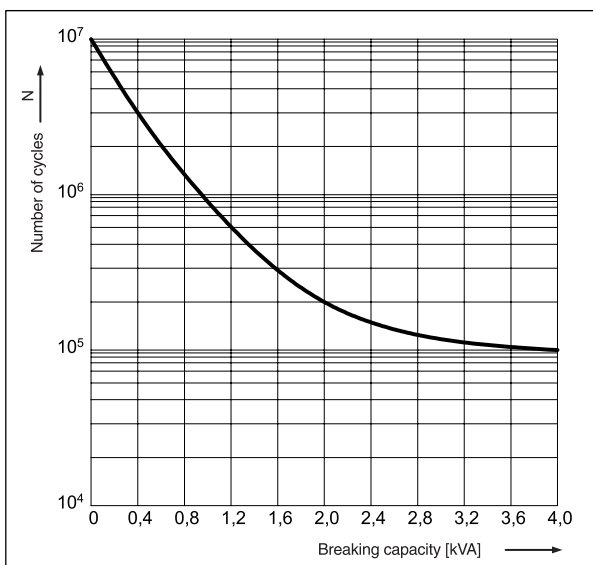


Connections diagram (pin side view)



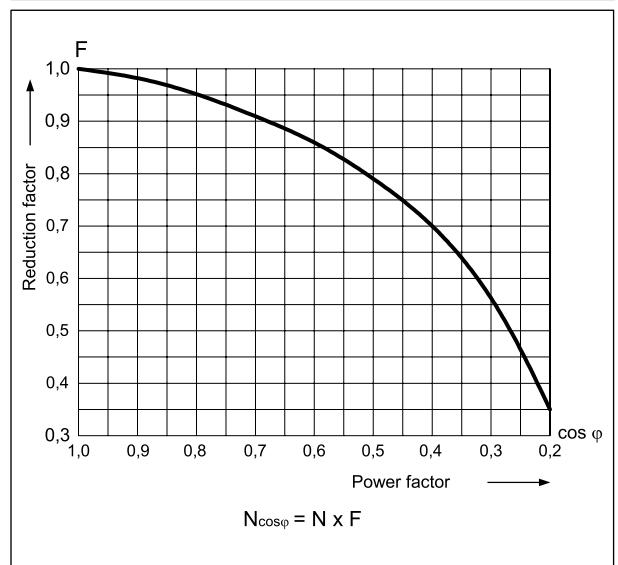
Electrical life at AC resistive load

Fig. 1



Electrical life reduction factor at AC inductive load

Fig. 2



Mounting

Relays **RM83** are designed for: • direct PCB mounting • screw terminals sockets **GZT80** and **GZM80**, if holding clips are not necessary and screw terminals sockets **GZ80** with clip **MS25**, 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) • terminals sockets for PCB mounting **PW80** and **GW80** with clip **RM81 0001**.

Ordering codes

