

RM50

miniature relays



- Small dimensions
- Switching current up to 10 A / 15 A
- The plastics applied provide for the operation of the relays at high temperature and in chemical environment
- Sealed, for soldering
- Applications: for household equipment, office machines, audio equipment, coffee machines, control devices, etc.
- Recognitions, certifications, directives: RoHS, 

Contact data

Number and type of contacts		1 CO, 1 NO
Contact material		AgSnO₂
Rated / max. switching voltage	AC	240 V / 277 V
Min. switching voltage		5 V
Rated load	AC1 DC1	10 A / 240 V AC 15 A / 24 V DC
Min. switching current		15 mA
Rated current		12 A
Max. breaking capacity	AC1	3 000 VA
Min. breaking capacity		0,75 W
Contact resistance		≤ 100 mΩ

Coil data

Rated voltage	DC	3 ... 48 V
Must release voltage		DC: ≥ 0,05 U _n
Operating range of supply voltage		see Table 1
Rated power consumption	DC	0,36 W 3 ... 24 V 0,45 W 48 V

Insulation according to PN-EN 60664-1

Dielectric strength		
• between coil and contacts	1 000 V AC	type of insulation: basic
• contact clearance	500 V AC	type of clearance: micro-disconnection
Contact - coil distance		
• clearance	≥ 1,9 mm	
• creepage	≥ 1,9 mm	

General data

Operating / release time (typical values)		10 ms / 5 ms
Electrical life (number of cycles)		
• resistive AC1	1 200 cycles/hour	> 10 ⁵ 7 A, 250 V AC
• resistive AC1	1 200 cycles/hour	> 3 x 10 ⁴ 12 A, 250 V AC
• resistive DC1	1 200 cycles/hour	> 5 x 10 ⁴ 15 A, 24 V DC
Mechanical life	18 000 cycles/hour	> 10 ⁷
Dimensions (L x W x H)		19 x 15,4 x 15,5 mm
Weight		11 g
Ambient temperature	• operating	-30...+55 °C
Cover protection category		IP 64 PN-EN 60529
Shock resistance		10 g
Vibration resistance		1,5 mm DA (constant amplitude) 10...55 Hz
Solder bath temperature		max. 235 °C
Soldering time		max. 3,5 s

The data in bold type pertain to the standard versions of the relays.

RM50

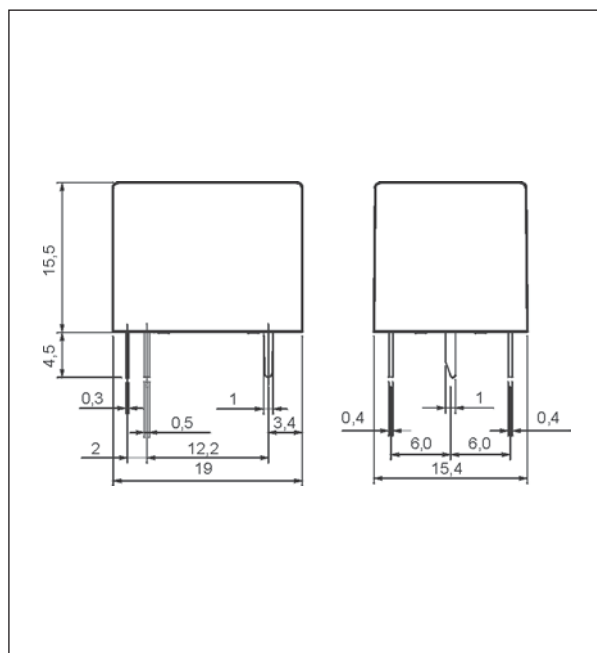
miniature relays

Coil data - DC voltage version

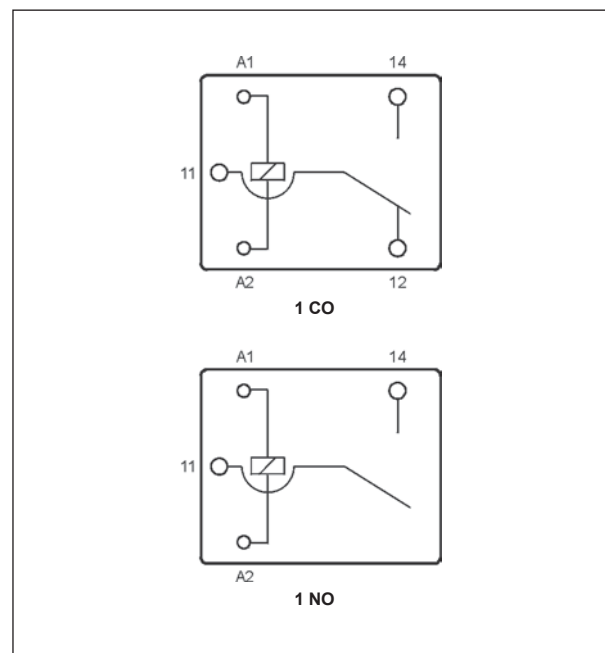
Table 1

Coil code	Rated voltage V DC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 20 °C)
1003	3	25	$\pm 10\%$	2,25	3,9
1005	5	70	$\pm 10\%$	3,75	6,5
1006	6	100	$\pm 10\%$	4,50	7,8
1009	9	225	$\pm 10\%$	6,75	11,7
1012	12	400	$\pm 10\%$	9,00	15,6
1018	18	900	$\pm 10\%$	13,50	23,4
1024	24	1 600	$\pm 10\%$	18,00	31,2
1048	48	6 400	$\pm 10\%$	38,40	62,4

Dimensions

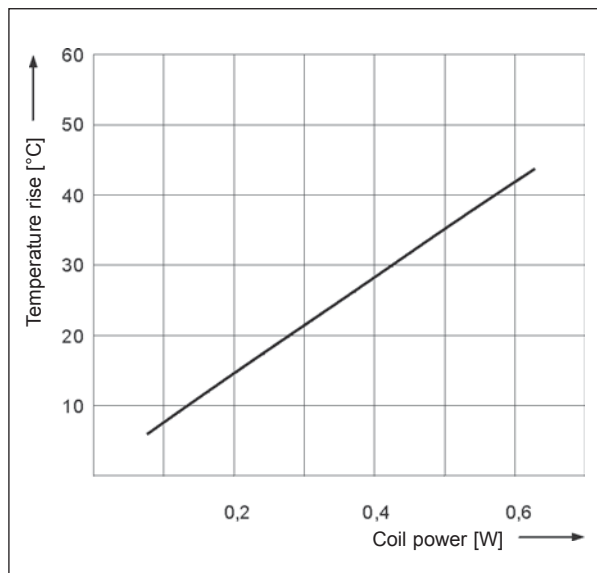


Connection diagrams (pin side view)



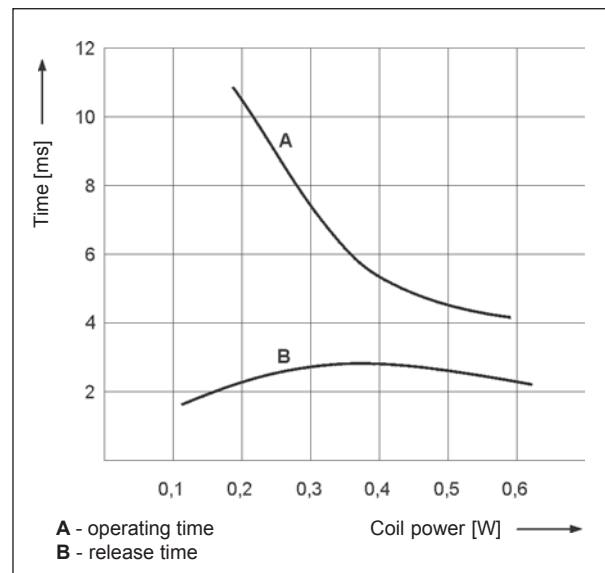
Coil temperature rise

Fig. 1



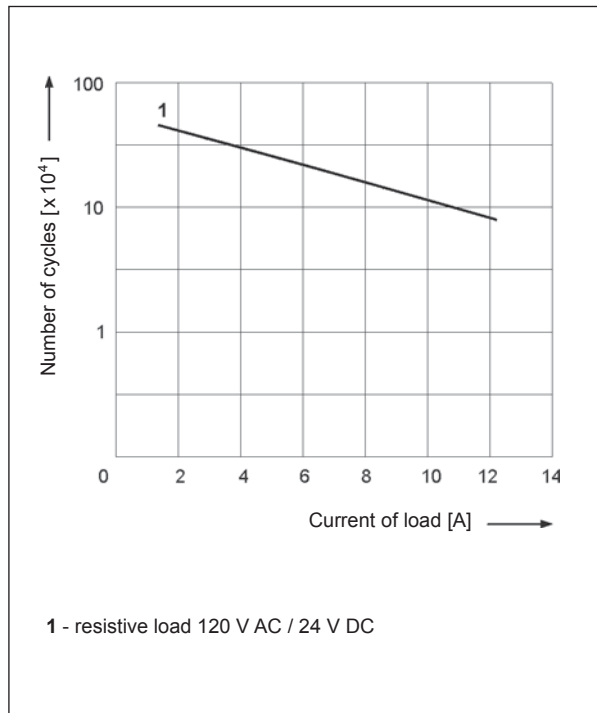
Operating / release time

Fig. 2

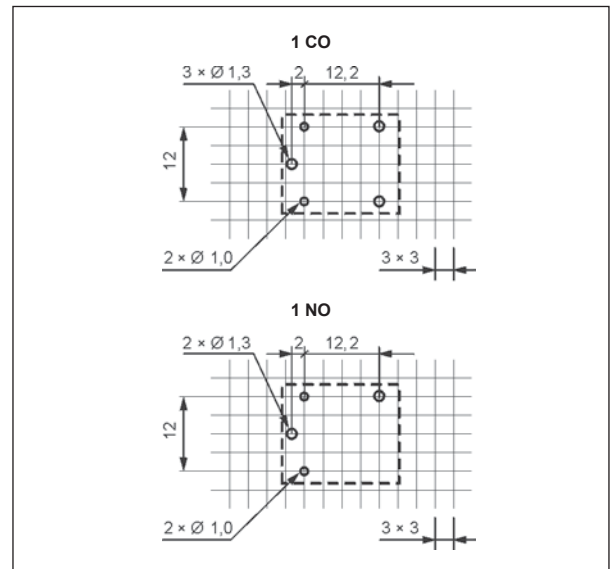


Electrical life

Fig. 3



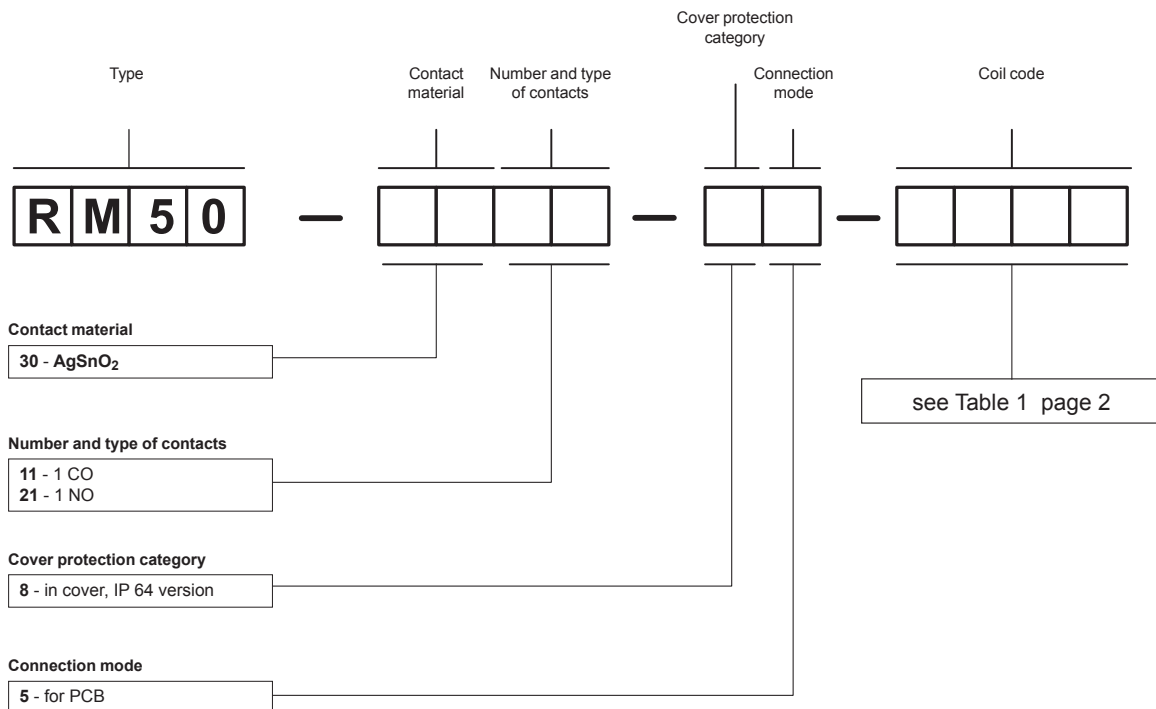
Pinout (solder side view)



Mounting

Relays **RM50** are designed for direct PCB mounting.

Ordering codes



Example of ordering code:

RM50-3011-85-1012

relay **RM50**, for PCB, one changeover contact, contact material AgSnO₂, coil voltage 12 V DC, in cover IP 64