BISTABLE

- DC coils. AC supply through rectifying diode
- Miniature size
- for PCB mounting
- High switching capacity
- 2-coil bistable relays

Contacts

Contact number & arrangement		1C/O, 1NO
Contact material		**AgCdO**, $AgSnO_2$
Max. switching voltage	AC/DC	400 V / 250 V
Min. switching voltage		24 V AgCdO, 24 V $AgSnO_2$
Rated load	AC1	16 A / 250 V AC
	DC1	16 A / 24 V DC
Min. switching current		100 mA AgCdO, 100 mA $AgSnO_2$
Max. inrush current		25 A
Rated current		16 A
Max. breaking capacity	AC1	4 000 VA
Min. breaking capacity		2,4 W AgCdO, 2,4 W $AgSnO_2$
Resistance		≤ 100 mΩ
Max. operating frequency		
• at rated load	AC1	3 600 cycles/hour
• no load		18 000 cycles/hour

Coil

Rated voltage	AC	DC coil + diode D ❶
	DC	3...36 V ❶
Operating range of supply voltage		see Table 1
Duration of supply voltage pulse		min. 10 ms; max. 230 s 20 °C, 120 s 40 °C, 40 s 70 °C

Insulation

Insulation category	C250
Insulation rated voltage	400 V AC
Dielectric strength	
• coil - contact	5 000 V AC
• contact - contact	1 000 V AC
Contact - coil distance	
• clearance	≥ 8 mm
• creepage	≥ 8 mm

General data

Operating time (typical value)		10 ms
Release time (typical value)		5 ms
Electrical life		
• resistive AC1	1 000 cycles/hour	> 10^5
	500 cycles/hour	> 1,5 x 10^5
Mechanical life (cycles)		> 5 x 10^7
Dimensions (L x W x H)		15...18 g
Weight		29,4 x 12,5 x 25,2 mm for IP 67 H=26,5 mm
Ambient temperature		
• storing		-40...+80 °C
• operating		-40...+70 °C
Cover protection category		IP 40 or IP 67
Shock resistance		10 g
Vibration resistance		2,5 mm 5...45 Hz
		10 g 45...200 Hz
Solder bath temperature		max. 270 °C
Soldering time		max. 5 s

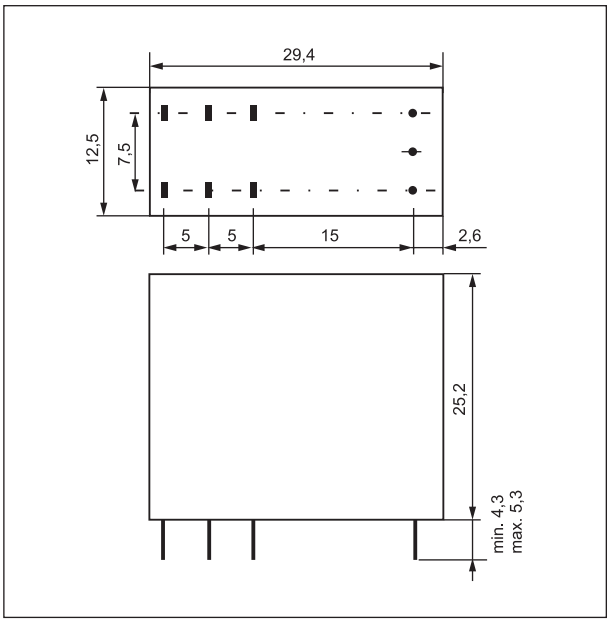
Standard contact material marked with bolt type.
❶ **RMB632** bistable relays supply - see page 66
Note: At IP 67 version it is recommended that the vent pin is removed after soldering and washing process.

Coil data - AC/DC voltage version Table 1

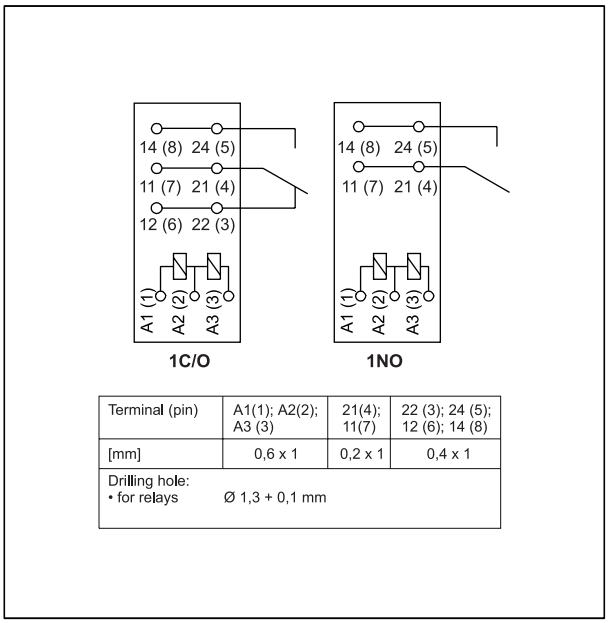
Coil code	Rated voltage V AC/DC	Coil 1-2 resistance at 20 °C Ω	Coil 1-2 tolerance of resistance ±%	Coil 2-3 resistance at 20 °C Ω	Coil 2-3 tolerance of resistance ±%	Coil operating range at 20 °C V AC/DC	
						min.	max.
1003	3	8,0	10	31,5	10	2,77	5,00
1006	6	23,5	10	115,0	15	4,70	9,35
1009	9	42,5	10	195,0	15	6,42	12,50
1012	12	89,0	10	435,0	15	8,54	18,00
1024	24	225,0	10	1 100,0	15	13,60	28,50
1036	36	605,0	15	2 620,0	15	21,60	42,50

Supplying mode: Magnetic circuit with high remanence allows the relays to remain in certain position independetly from coil energizing. The realys are not allowed to be supplied continuesly. Only pulse supply is allowed. Pulse duration is between 10 ms and the time shown in **Coil Data** (depending on ambient temperature) on page 65.

Dimensions

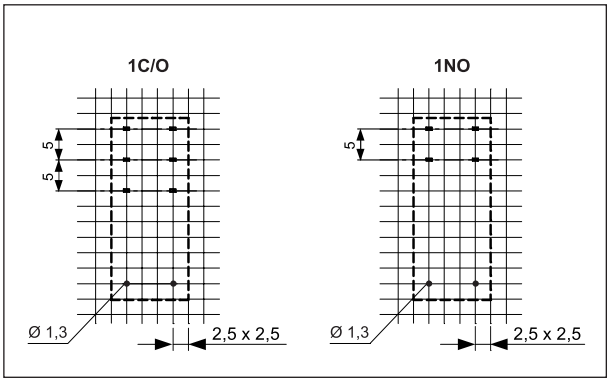


Connections diagram (pin side view)

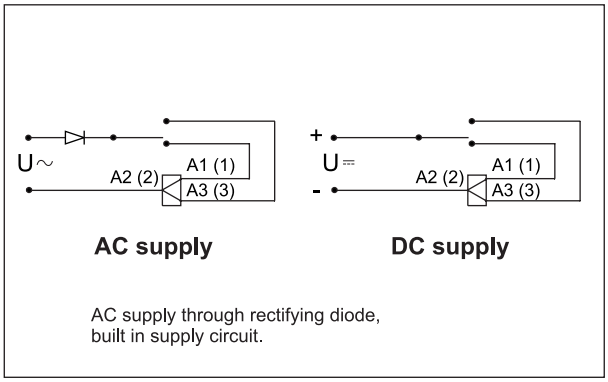


Terminal (pin)	A1(1); A2(2); A3 (3)	21(4); 11(7)	22 (3); 24 (5); 12 (6); 14 (8)
[mm]	0,6 x 1	0,2 x 1	0,4 x 1
Drilling hole: • for relays	Ø 1,3 + 0,1 mm		

Mounting holes layout
(view from soldering side)

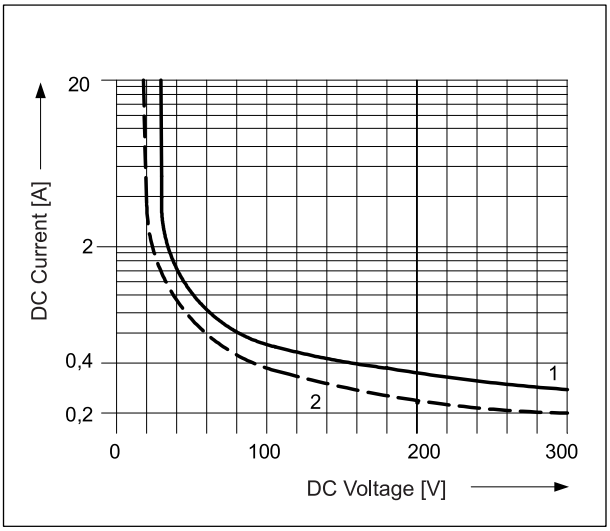


2-coil circuit

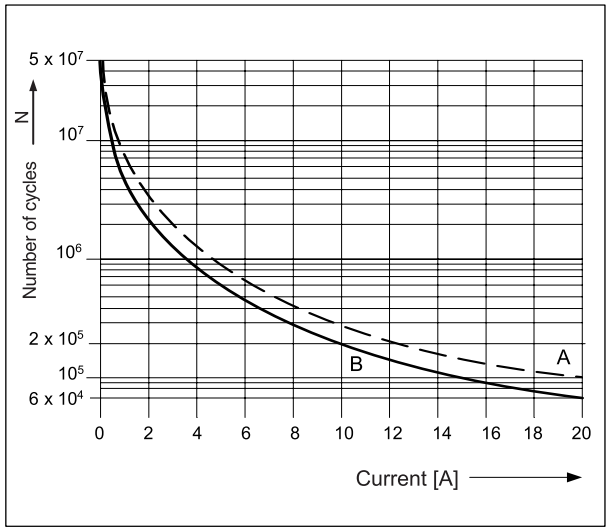


AC supply through rectifying diode, built in supply circuit.

Max. DC breaking capacity
A - resistive load
B - inductive load (L/R ≤ 40 ms)
Fig. 1



Electrical life
at 250 V AC, 1000 cycles/hour
Temperature: A = 40°C, B= 70°C
Fig. 2



Mounting

Relays **RMB632** are mounted anly on PCBs.

Ordering codes