

RSM850B

subminiature signal relays



BISTABLE
1-COIL

- Polarized, bistable relays with one coil
- DC coils of up to 24 V DC, low coil power 0,10 ... 0,15 W
- For PCB • Sealed, for wave soldering and cleaning
- Dielectric strength 1000 Vrms
- Application: for telecommunication devices, office equipment, alarm systems, measuring instruments, medical monitoring devices, AV devices, control sensors
- Conforms to FCC Part 68 - 1500 V - lightning surge
- Recognitions, certifications, directives: RoHS, 

Contact data

Number and type of contacts		2 CO
Contact material		AgPd/Au 0,2 µm
Rated / max. switching voltage	AC	125 V / 250 V
Min. switching voltage		10 mV
Rated load	AC1 DC1	0,5 A / 125 V AC 2 A / 30 V DC
Min. switching current		0,01 mA
Rated current		2 A
Max. breaking capacity	AC1	62,5 VA
Contact resistance		≤ 50 mΩ

Coil data

Rated voltage	DC	3 ... 24 V
Must release voltage		-0,75 U _n ... -U _{max} ❶
Operating range of supply voltage		see Table 1
Rated power consumption	DC	0,10 W 3 ... 12 V 0,15 W 24 V

Insulation according to PN-EN 60664-1

Insulation resistance		1 000 MΩ	500 V DC, 60 s
Dielectric strength			
• between coil and contacts		1 000 V AC	type of insulation: basic
• contact clearance		1 000 V AC	type of clearance: micro-disconnection
• pole - pole		1 000 V AC	type of insulation: basic
Contact - coil distance			
• clearance		≥ 0,5 mm	
• creepage		≥ 0,9 mm	

General data

Operating / release time (typical values)		3 ms / 3 ms
Electrical life		
• resistive AC1	1 200 cycles/hour	10 ⁵ 0,5 A, 125 V AC
• resistive DC1	1 200 cycles/hour	2 x 10 ⁵ 1 A, 30 V DC
Mechanical life	10 800 cycles/hour	10 ⁸
Dimensions (L x W x H)		14,3 x 9,3 x 5,4 mm
Weight		1,5 g
Ambient temperature	• operating	-40...+70 °C
Cover protection category		IP 64 PN-EN 60529
Shock resistance		10 g
Vibration resistance		3 mm DA (constant amplitude) 10...55 Hz
Solder bath temperature		max. 235 °C
Soldering time		max. 3 s

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

❶ Drop-out voltage are the values of the operating supply voltage range of opposite polarization, specified in Table 1.

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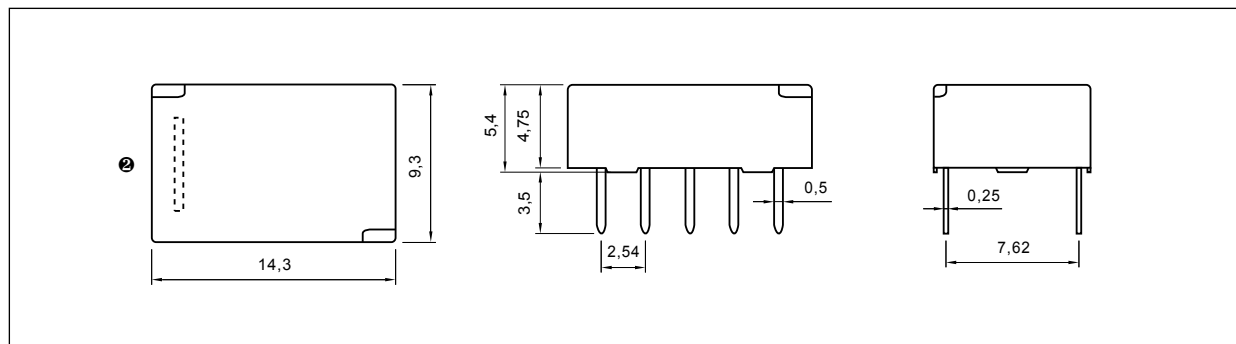
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Coil data - DC voltage version

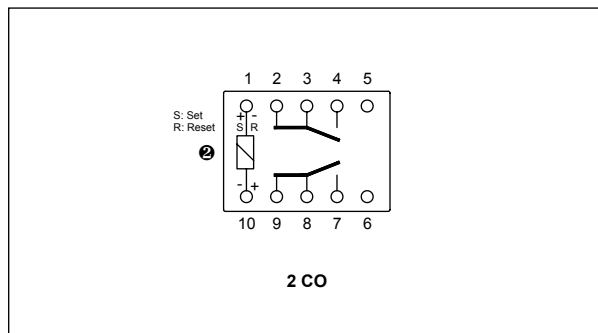
Table 1

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	90	$\pm 10\%$	2,25	8,7
1005	5	250	$\pm 10\%$	3,75	14,5
1006	6	360	$\pm 10\%$	4,50	17,4
1009	9	810	$\pm 10\%$	6,75	26,1
1012	12	1 440	$\pm 10\%$	9,00	34,8
1024	24	3 840	$\pm 10\%$	18,00	57,6

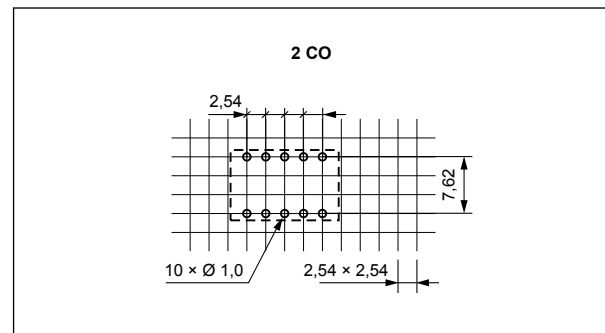
Dimensions



Connection diagram (pin side view)



Pinout (solder side view)



② Coil terminals position is indicated by the vertical strip on the relay cover.

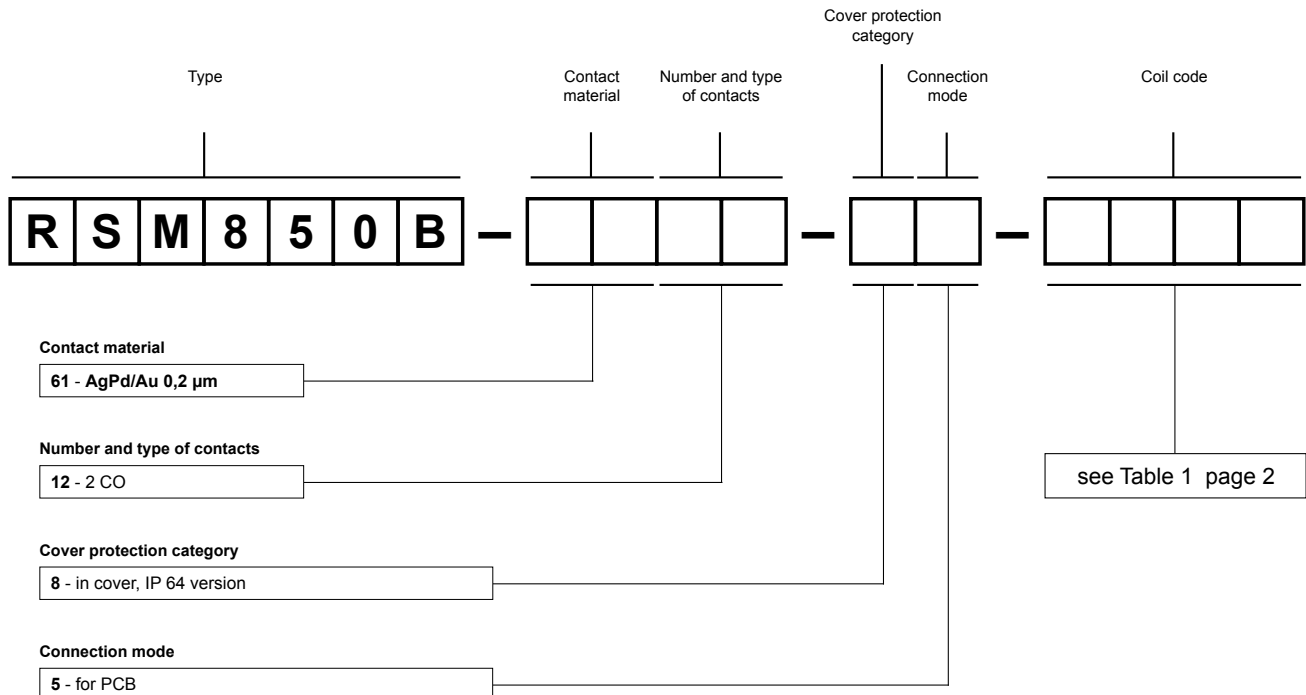
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Mounting

Relays **RSM850B** are designed for direct PCB mounting.

Ordering codes



Example of ordering code:

RSM850B-6112-85-1012 bistable relay **RSM850B** with one coil, for PCB, two changeover contacts, contact material AgPd/Au 0,2 µm, coil voltage 12 V DC, in cover IP 64

PRECAUTIONS:

1. Ensure that the parameters of the product described in its specification provide a safety margin for the appropriate operation of the device or system and never use the product in circumstances which exceed the parameters of the product. 2. Never touch any live parts of the device. 3. Ensure that the product has been connected correctly. An incorrect connection may cause malfunction, excessive heating or risk of fire. 4. In case of any risk of any serious material loss or death or injuries of humans or animals, the devices or systems shall be designed so to equip them with double safety system to guarantee their reliable operation.