



# RM40B

## miniature relays



- DC coils - of up to 48 V DC, low coil power 0,20 W, insulation class F: 155 °C
- For PCB • Very small dimensions, light weight
- High load up to 10 A / 120 V AC ❶
- Applications: for household electrical appliance, automation systems, electrical equipment, instrument and meter, telecommunication devices, remote control facilities, light controllers, etc.
- Recognitions, certifications, directives: RoHS,  

### Contact data

Number and type of contacts	1 CO, 1 NO	
Contact material	<b>AgSnO<sub>2</sub></b> , AgNi	
Rated / max. switching voltage	AC	250 V / 277 V
Rated load	AC1	1 CO: 6 A / 5 A (NO/NC) / 250 V AC   1 NO: 6 A / 250 V AC 1 NO: 10 A / 120 V AC (cUL)
	DC1	1 CO: 6 A / 5 A (NO/NC) / 30 V DC   1 NO: 6 A / 30 V DC
Motor load	acc. to UL 508	1/4 HP 240/277 V AC, 40 °C, single-phase motor ❶
Max. make current	8 A	
Rated current	6 A	
Max. breaking capacity	AC1	1 600 VA
Contact resistance	≤ 100 mΩ 1 A, 6 V DC	
<b>Coil data</b>		
Rated voltage	DC	3, 5, 6, 9, 12, 24, 48 V
Must release voltage	DC: ≥ 0,1 U <sub>n</sub>	
Operating range of supply voltage	see Table 1	
Rated power consumption	DC	0,20 W standard coil
<b>Insulation according to EN 60664-1</b>		
Rated surge voltage	10 000 V 1,2 / 50 μs	
Insulation resistance	1 000 MΩ 500 V DC	
Dielectric strength	• between coil and contacts	5 000 V AC 1 min.
	• contact clearance	1 000 V AC 1 min.
Contact - coil distance	• clearance	≥ 6 mm
	• creepage	≥ 6 mm
<b>General data</b>		
Operating / release time (typical values)	8 ms / 5 ms	
Electrical life (number of cycles)	• resistive AC1 1 200 cycles/hour	10 <sup>5</sup> 1 CO: 6 A / 5 A (NO/NC), 250 V AC   1 NO: 6 A, 250 V AC
	• resistive DC1 1 200 cycles/hour	10 <sup>5</sup> 1 CO: 6 A / 5 A (NO/NC), 30 V DC   1 NO: 6 A, 30 V DC
Mechanical life	10 <sup>7</sup>	
Dimensions (L x W x H)	20 x 10 x 10,6 mm	
Weight	4,6 g	
Ambient temperature (non-condensation and/or icing)	• operating	-40...+85 °C
Cover protection category	IP 50 EN 60529	
Environmental protection	RTIII EN 61810-7	
Shock resistance	functional: 98 m/s <sup>2</sup> destructive: 980 m/s <sup>2</sup>	
Vibration resistance	1,5 mm DA (constant amplitude) 10...55 Hz	
Solder bath temperature	max. 260 °C	
Soldering time	max. 5 s	

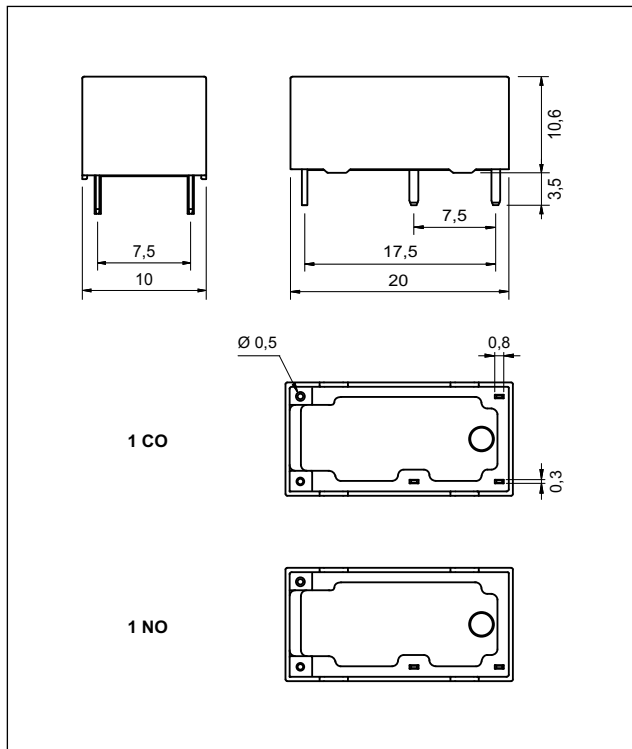
The data in bold type relate to the standard versions of the relays.

❶ Only for contacts 1 NO.

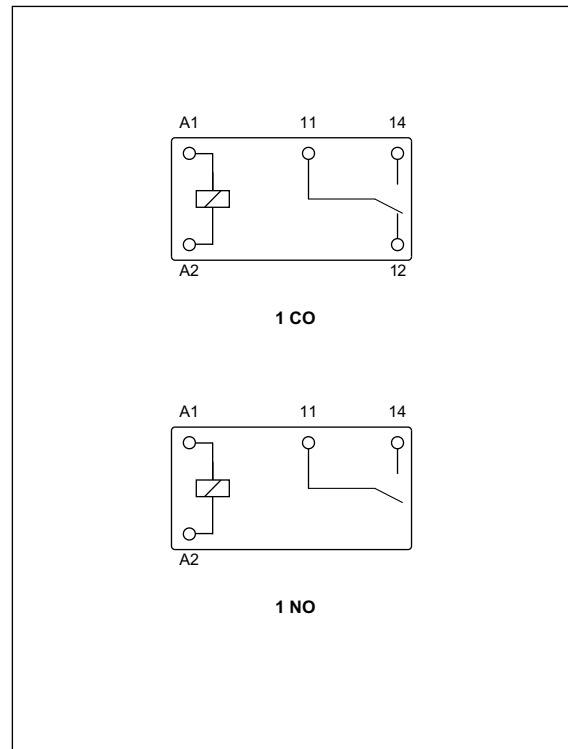
# RM40B

miniature relays

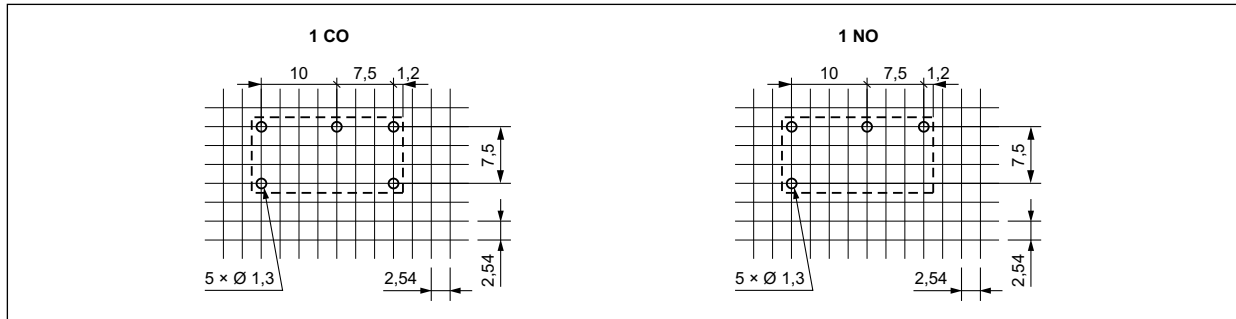
## Dimensions



## Connection diagrams (pin side view)



## Pinout (solder side view)



## Mounting

Relays **RM40B** are designed for direct PCB mounting.

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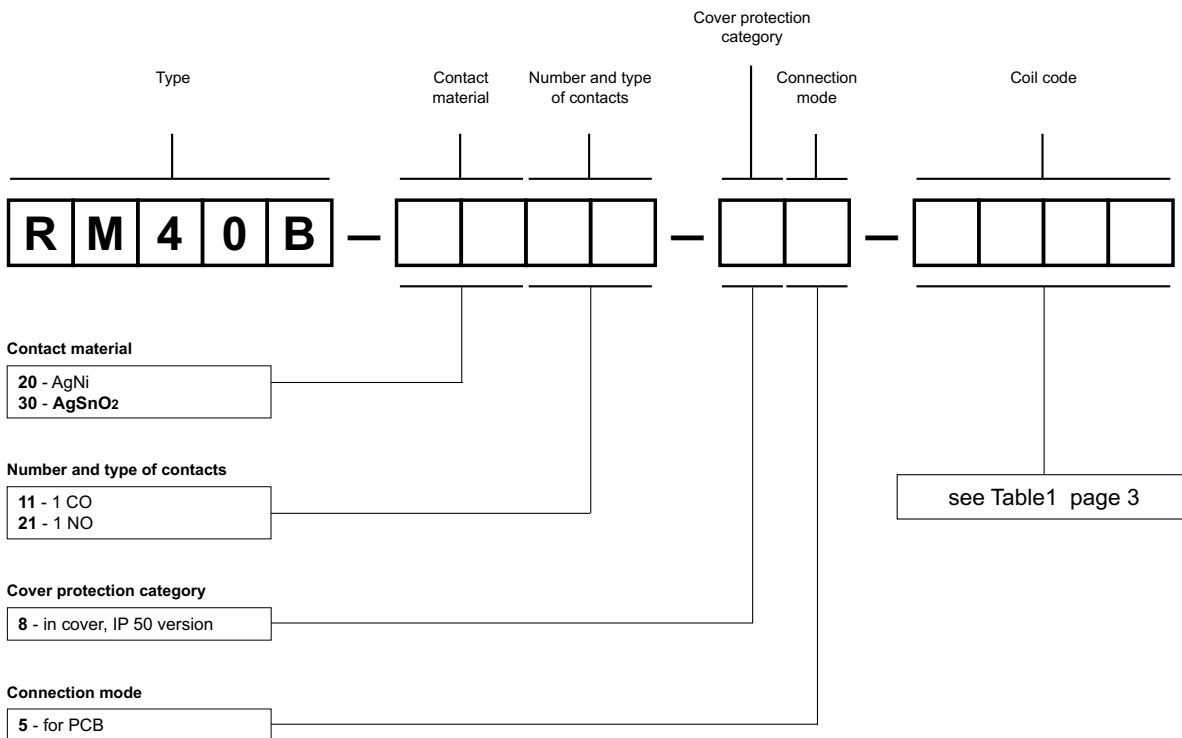
miniature relays

Coil data - DC voltage version, standard

Table 1

Coil code	Rated voltage V DC	Coil resistance at 20 °C $\Omega$	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 20 °C)
1003	3	45	$\pm 10\%$	2,25	3,90
1005	5	125	$\pm 10\%$	3,75	6,50
1006	6	180	$\pm 10\%$	4,50	7,80
1009	9	405	$\pm 10\%$	6,75	11,70
1012	12	720	$\pm 10\%$	9,00	15,60
1024	24	2 880	$\pm 10\%$	18,00	31,20
1048	48	11 520	$\pm 10\%$	36,00	62,40

## Ordering codes



Examples of ordering codes:

- RM40B-2021-85-1005** relay **RM40B**, for PCB, one normally open contact, contact material AgNi, standard coil voltage 5 V DC, in cover IP 50
- RM40B-3011-85-1048** relay **RM40B**, for PCB, one changeover contact, contact material AgSnO<sub>2</sub>, standard coil voltage 48 V DC, in cover IP 50

### 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.

26.05.2022