

RM45N

miniature relays



- DC coils - of up to 24 V DC, low coil power 0,20 W (sensitive coil) or 0,45 W (standard coil)
- For PCB • Very small dimensions, light weight
- High load up to 10 A / 125 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	AgSnO₂		
Rated / max. switching voltage	AC	250 V / 277 V	
Min. switching voltage		5 V	
Rated load	AC1	1 CO: 5 A / 5 A (NO/NC) / 250 V AC 1 CO: 10 A / 125 V AC ❶	1 NO: 5 A / 250 V AC 1 NO: 10 A / 125 V AC
	DC1	1 CO: 5 A / 5 A (NO/NC) / 28 V DC	1 NO: 5 A / 28 V DC
Motor load	acc. to UL 508	1/4 HP 250 V AC, single-phase motor	
Rated current		5 A	
Max. breaking capacity	AC1	1 250 VA	
Contact resistance		≤ 100 mΩ	

Coil data

Rated voltage	DC	5, 9, 12, 24 V	
Must release voltage		DC: ≥ 0,05 U _n	
Operating range of supply voltage		see Tables 1, 2	
Rated power consumption	DC	0,20 W sensitive coil ❶	0,45 W standard coil

Insulation according to EN 60664-1

Insulation resistance	100 MΩ 500 V DC, 60 s		
Dielectric strength			
• between coil and contacts	4 000 V AC	type of insulation: reinforced	
• contact clearance	1 000 V AC	type of clearance: micro-disconnection	

General data

Operating / release time (typical values)	8 ms / 5 ms		
Electrical life (number of cycles)			
• resistive AC1	1 800 cycles/hour	10 ⁵ 1 CO: 5 A / 5 A (NO/NC), 250 V AC	1 NO: 5 A, 250 V AC
• resistive DC1	1 800 cycles/hour	10 ⁵ 1 CO: 5 A / 5 A (NO/NC), 28 V DC	1 NO: 5 A, 28 V DC
Mechanical life	18 000 cycles/hour	10 ⁷	
Dimensions (L x W x H)	20,5 x 10,6 x 15,6 mm		
Weight	7 g		
Ambient temperature			
(non-condensation and/or icing)	• operating	-40...+70 °C	
Cover protection category	IP 67 EN 60529		
Environmental protection	RTIII EN 61810-7		
Shock resistance	10 g		
Vibration resistance	1,5 mm DA (constant amplitude) 10...55 Hz		
Solder bath temperature	max. 260 °C		
Soldering time	max. 5 s		

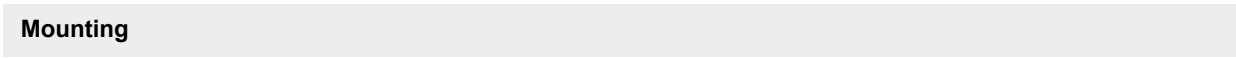
The data in bold type relate to the standard versions of the relays.

❶ Only for contacts 1 NO

Dimensions



Pinout (solder side view)



Relays **RM45N** are designed for direct PCB mounting.

22.02.2018

Coil data - DC voltage version, sensitive

Table 1

Coil code ❶	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)
S005	5	125	± 10%	3,75	5,5
S009	9	405	± 10%	6,75	9,9
S012	12	720	± 10%	9,00	13,2
S024	24	2 880	± 10%	18,00	26,4

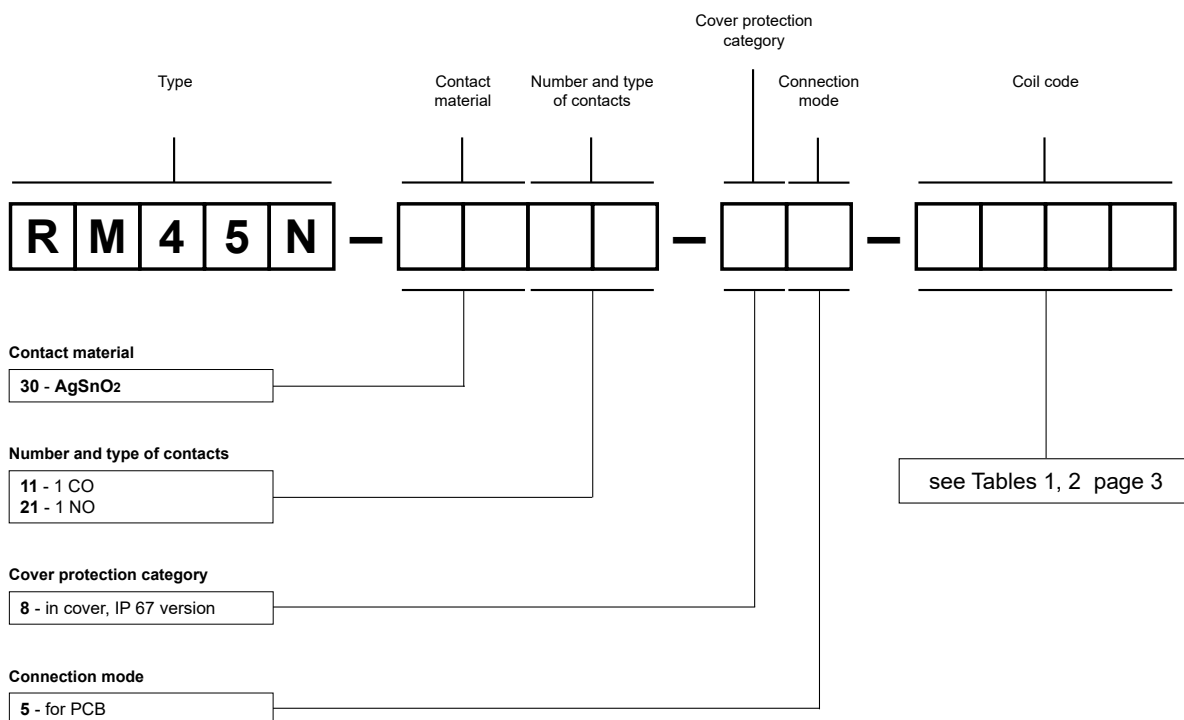
❶ Only for contacts 1 NO

Coil data - DC voltage version, standard

Table 2

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)
1005	5	56	± 10%	3,75	5,5
1009	9	180	± 10%	6,75	9,9
1012	12	320	± 10%	9,00	13,2
1024	24	1 280	± 10%	18,00	26,4

Ordering codes



Examples of ordering codes:

RM45N-3021-85-S012

relay **RM45N**, for PCB, one normally open contact, contact material AgSnO₂, sensitive coil voltage 12 V DC, in cover IP 67

RM45N-3011-85-1024

relay **RM45N**, for PCB, one changeover contact, contact material AgSnO₂, standard coil voltage 24 V DC, in cover IP 67