- Very small dimensions
- High switching capacity up to 5 A or 8 A
- Cover with enhanced sealing protects the relay in course of soldering and cleaning
- Applications: for household equipment, office machines, control devices, alarm systems, in industrial control, industrial controllers
- Recognitions, certifications, directives: RoHS,

Contact data

Number and type of contacts		1 C/O	1 NO
Contact material		1 C/O: **AgNi**, AgNi/Au 3 µm	1 NO: **$AgSnO_2$**
Rated / max. switching voltage	AC	1 C/O: 250 V / 380 V	1 NO: 250 V / 440 V
Min. switching voltage		5 V AgNi, 1 V AgNi/Au 3 µm	5 V $AgSnO_2$
Rated load	AC1	1 C/O: 5 A / 250 V AC	1 NO: 8 A / 250 V AC
	DC1	1 C/O: 5 A / 30 V DC	1 NO: 8 A / 30 V DC
Min. switching current		10 mA AgNi, 1 mA AgNi/Au 3 µm	10 mA $AgSnO_2$
Rated current		1 C/O: 5 A	1 NO: 8 A
Max. breaking capacity	AC1	1 C/O: 1 250 VA	1 NO: 2 000 VA
Min. breaking capacity		50 mW AgNi, 1 mW AgNi/Au 3 µm	50 mW $AgSnO_2$
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	0,20 W

Insulation according to PN-EN 60664-1

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
Contact - coil distance	
• clearance	≥ 5 mm
• creepage	≥ 5 mm

General data

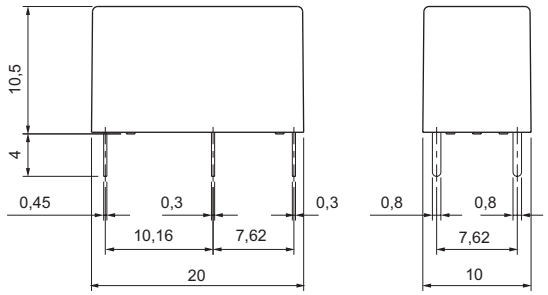
Operating / release time (typical values)		8 ms / 4 ms		
Electrical life				
• resistive AC1	360 cycles/hour	> 10^5	1 C/O: 5 A, 250 V AC	1 NO: 8 A, 250 V AC
• resistive DC1	1 800 cycles/hour	> 10^5	1 C/O: 5 A, 30 V DC	1 NO: 8 A, 30 V DC
Mechanical life	18 000 cycles/hour	> 10^7		
Dimensions (L x W x H)		20 x 10 x 10,5 mm		
Weight		6 g		
Ambient temperature	• operating	-40...+85 °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.

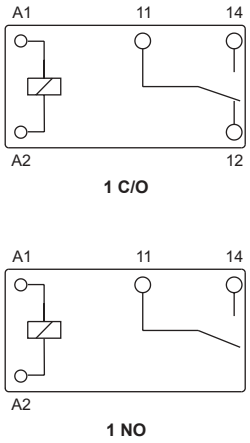
Coil data - DC voltage version Table 1

Coil code	Rated voltage V DC	Coil resistance ± 10% at 20°C Ω	Coil operating range at 20°C V DC		Power consumption mW
			min.	max.	
1003	3	45	2,25	4,5	200
1005	5	125	3,75	7,5	200
1006	6	180	4,50	9,0	200
1009	9	405	6,75	13,5	200
1012	12	720	9,00	18,0	200
1024	24	2 880	18,00	36,0	200
1048	48	11 520	36,00	72,0	200

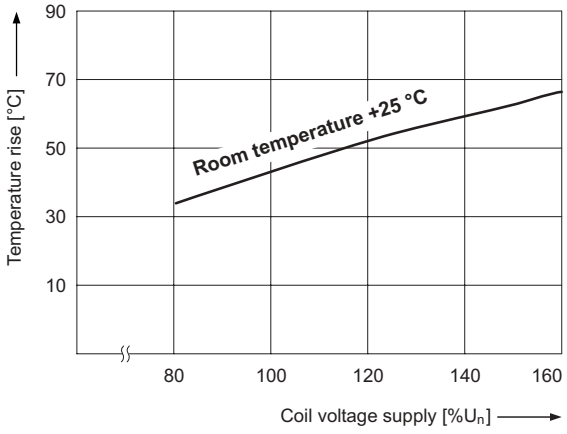
Dimensions



Connection diagrams (pin side view)

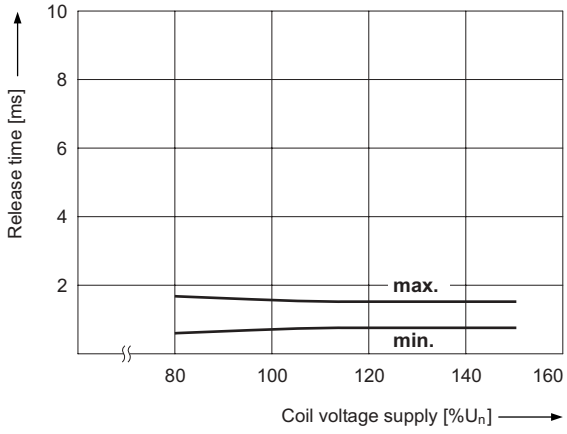


Coil temperature rise Fig. 1



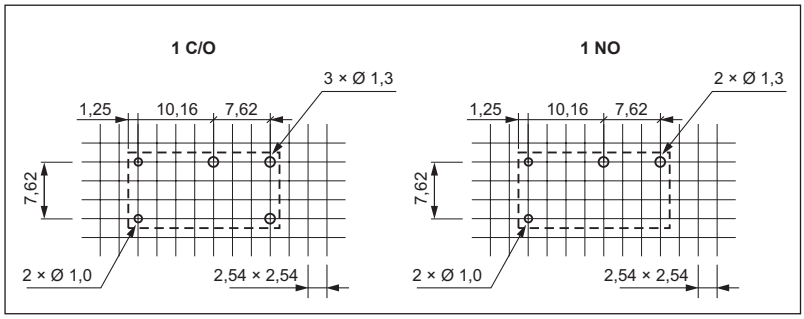
Coil temperature increment over the ambient temperature +25 °C, depended on coil voltage supply

Release time Fig. 2



Dependance of the release time on coil voltage supply

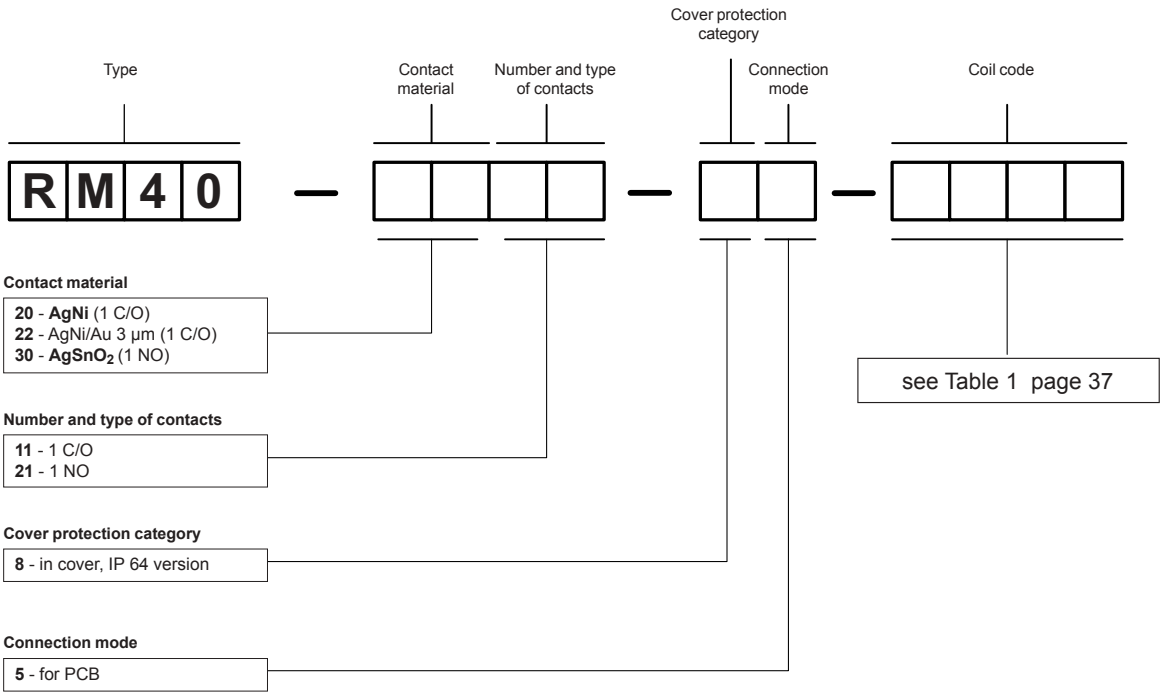
Pinout (solder side view)



Mounting

Relays **RM40** are designed for direct PCB mounting.

Ordering codes



Contact material

20 - **AgNi** (1 C/O)
22 - AgNi/Au 3 µm (1 C/O)
30 - **$AgSnO_2$** (1 NO)

Number and type of contacts

11 - 1 C/O
21 - 1 NO

Cover protection category

8 - in cover, IP 64 version

Connection mode

5 - for PCB

Examples of ordering code:

RM40-2011-85-1003 relay **RM40**, contact material AgNi, with one changeover contact, in cover IP 64, for PCB, voltage version 3 V DC

RM40-3021-85-1024 relay **RM40**, contact material $AgSnO_2$, with one normally open contact, in cover IP 64, for PCB, voltage version 24 V DC