

RSM 822

subminiature signal relays



- Subminiature monostable relays for switching low loads • **DC coils**
- **standard and sensitive of up to 48 V DC**, low coil power 0,20 W (sensitive version) or 0,36 W (standard version) • Mounting on printed circuit boards • Operation possible at high temperature and in chemical environment • Sealed, for wave soldering and cleaning • Applications: for telephone equipment, household equipment, office equipment, AV devices, control devices - remote control devices
- 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	120 V / 120 V
Min. switching voltage		1 V
Rated load	AC1	1 A / 120 V AC
	DC1	2 A / 24 V DC
Min. switching current		1 mA
Rated current		2 A
Max. breaking capacity	AC1	120 VA
Min. breaking capacity		1 mW
Contact resistance		≤ 100 mΩ

Coil data

Rated voltage	DC	3 ... 24 V sensitive version	48 V standard version
Must release voltage		DC: ≥ 0,1 U _n	
Operating range of supply voltage		see Tables 1, 2	
Rated power consumption	DC	0,20 W sensitive version	0,36 W standard version

Insulation according to PN-EN 60664-1

Dielectric strength			
• between coil and contacts		1 000 V AC	type of insulation: basic
• contact clearance		500 V AC	type of clearance: micro-disconnection
Contact - coil distance			
• clearance		≥ 1,3 mm	
• creepage		≥ 1,5 mm	

General data

Operating / release time (typical values)		8 ms / 4 ms sensitive version	6 ms / 4 ms standard version
Electrical life (number of cycles)			
• resistive AC1	1 800 cycles/hour	> 10 ⁵	1 A, 120 V AC
Mechanical life	18 000 cycles/hour	> 10 ⁷	
Dimensions (L x W x H)		21 x 10,1 x 12,1 mm	
Weight		4,8 g	
Ambient temperature	• operating	-30...+80 °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.

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Coil data - DC voltage version, sensitive

Table 1

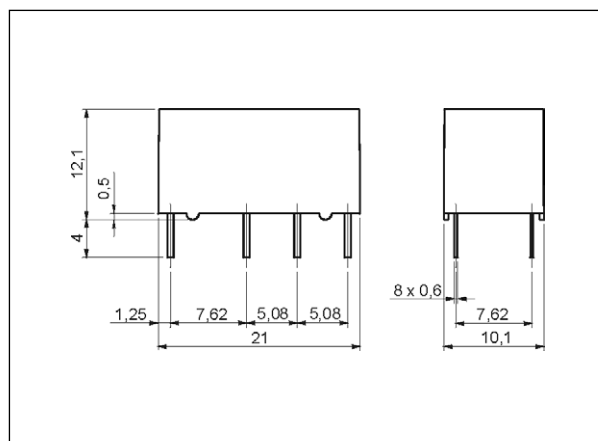
Coil code	Rated voltage V DC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 20 °C)
S003	3	45	$\pm 10\%$	2,25	4,5
S005	5	125	$\pm 10\%$	3,75	7,5
S006	6	180	$\pm 10\%$	4,50	9,0
S009	9	405	$\pm 10\%$	6,75	13,5
S012	12	720	$\pm 10\%$	9,00	18,0
S024	24	2 880	$\pm 10\%$	18,00	36,0

Coil data - DC voltage version, standard

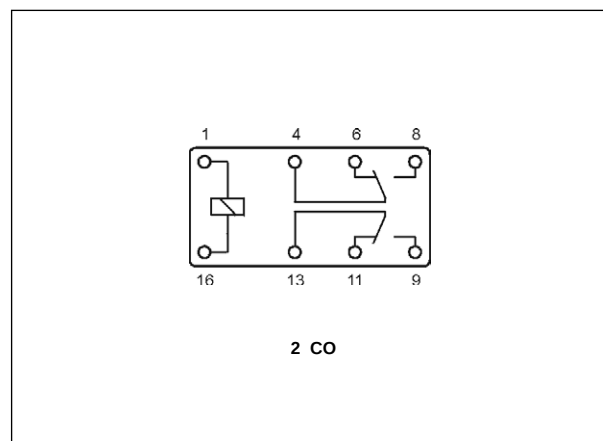
Table 2

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)
1048	48	6 400	$\pm 10\%$	36,00	72,0

Dimensions

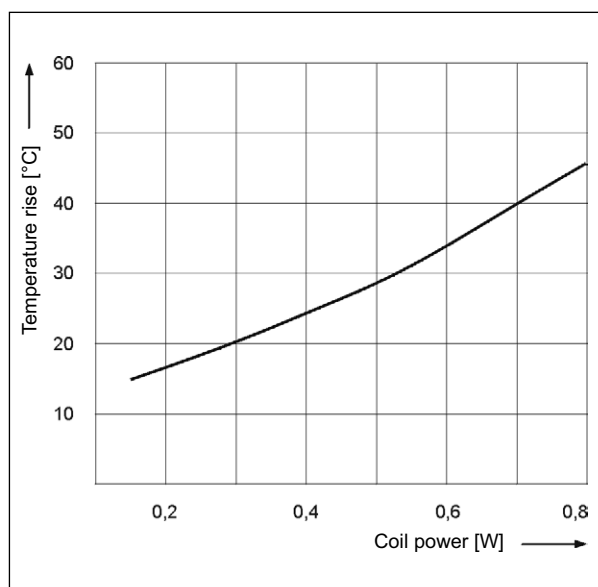


Connection diagram (pin side view)



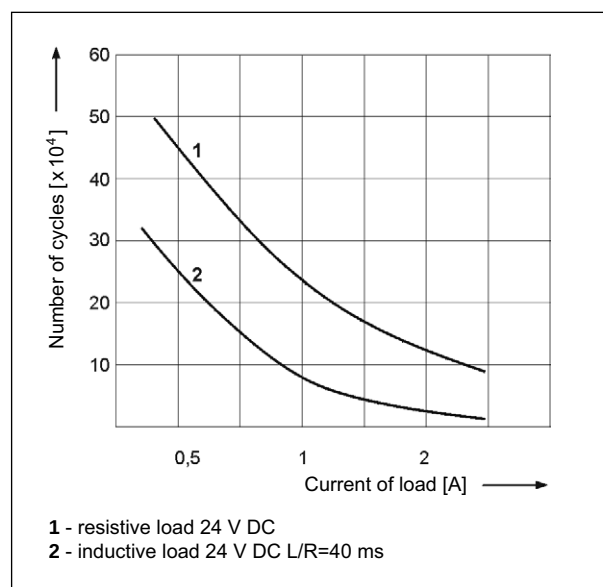
Coil temperature rise

Fig. 1



Electrical life

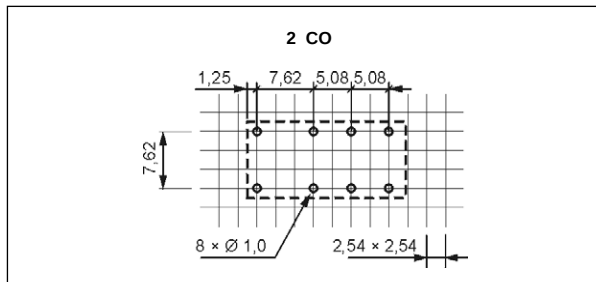
Fig. 2



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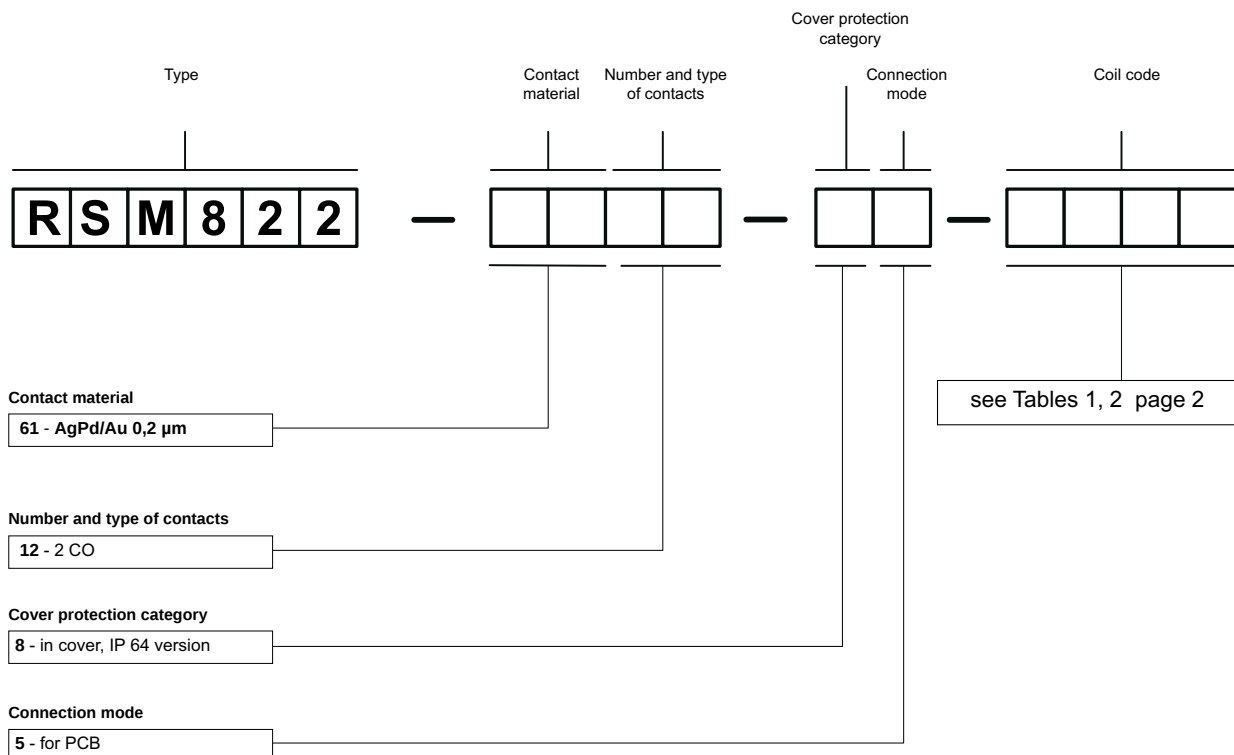
Pinout (solder side view)



Mounting

Relays **RSM822** are designed for direct PCB mounting.

Ordering codes



Examples of ordering code:

- RSM822-6112-85-S005** relay **RSM822**, for PCB, two changeover contacts, contact material AgPd/Au 0,2 µm, sensitive coil voltage 5 V DC, in cover IP 64
- RSM822-6112-85-1048** relay **RSM822**, for PCB, two changeover contacts, contact material AgPd/Au 0,2 µm, standard coil voltage 5 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.