

R30N

industrial relays of small dimensions



NEW

- High load 30 A • DC coils - of up to 110 V DC, low coil power 0,9 W, insulation class F: 155 °C
- For PCB • Small dimensions, light weight
- High shock and vibration resistance
- High quality, long life
- Application: for automobile, machine, electronic equipment, air conditioner, household appliance
- Recognitions, certifications, directives: RoHS,  

Contact data

Number and type of contacts		1 CO, 1 NO	
Contact material		AgSnO ₂ , AgCdO	
Rated / max. switching voltage	AC	240 V / 300 V	
	DC	110 V / 110 V	
Min. switching voltage		10 V	
Rated load	AC1	1 CO: 30 A / 20 A (NO/NC) / 240 V AC	1 NO: 30 A / 240 V AC
	DC1	1 CO: 30 A / 20 A (NO/NC) / 14 V DC	1 NO: 30 A / 14 V DC
Rated current		30 A	
Max. breaking capacity	AC1	1 CO: 7 200 VA / 4 800 VA (NO/NC)	1 NO: 7 200 VA
Contact resistance		≤ 30 mΩ	

Coil data

Rated voltage	DC	5 ... 110 V
Must release voltage	DC: ≥ 0,1 U _n	
Operating range of supply voltage	see Table 1	
Must operate voltage	≤ 0,75 U _n	
Rated power consumption	DC	0,9 W

Insulation according to PN-EN 60664-1

Insulation rated voltage	500 V AC	
Overvoltage category	II	
Flammability degree	V-0 UL94	
Insulation resistance	> 1 000 MΩ 500 V DC, 60 s	
Dielectric strength		
• between coil and contacts	2 500 V AC	type of insulation: basic
• contact clearance	1 500 V AC	type of clearance: micro-disconnection

General data

Operating / release time (typical values)		15 ms / 10 ms	
Electrical life			
• resistive AC1	1 200 cycles/hour	10 ⁵ 1 CO: 30 A / 20 A (NO/NC), 240 V AC	1 NO: 30 A, 240 V AC
• resistive DC1	1 200 cycles/hour	10 ⁵ 1 CO: 30 A / 20 A (NO/NC), 14 V DC	1 NO: 30 A, 14 V DC
Mechanical life (cykle)		10 ⁷	
Dimensions (L x W x H)		32,5 x 27,6 x 20,5 mm	
Weight		30 g	
Ambient temperature	• operating	-55...+100 °C	
Cover protection category		IP 40 or IP 64 PN-EN 60529	
Shock resistance		20 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.

14.07.2014

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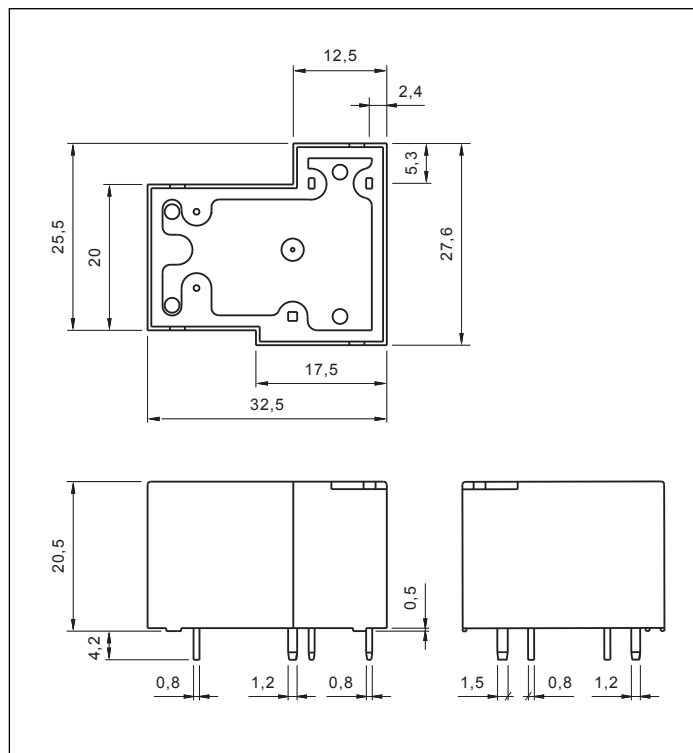
Coil data - DC voltage version

Table 1

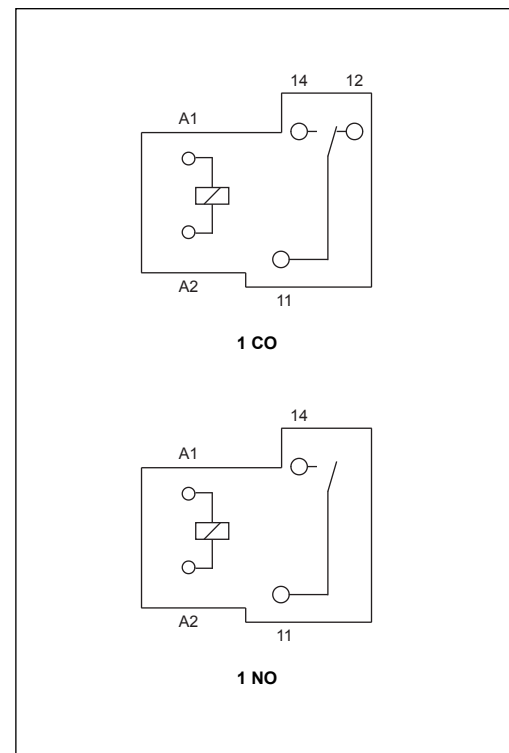
Coil code	Rated voltage V DC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 20 °C)
1005	5	28	$\pm 10\%$	3,8	6,5
1012	12	160	$\pm 10\%$	9,0	15,6
1024	24	640	$\pm 10\%$	18,0	31,2
1048	48	2 560	$\pm 10\%$	36,0	62,4
1110	110	13 445	$\pm 10\%$	82,5	143,0

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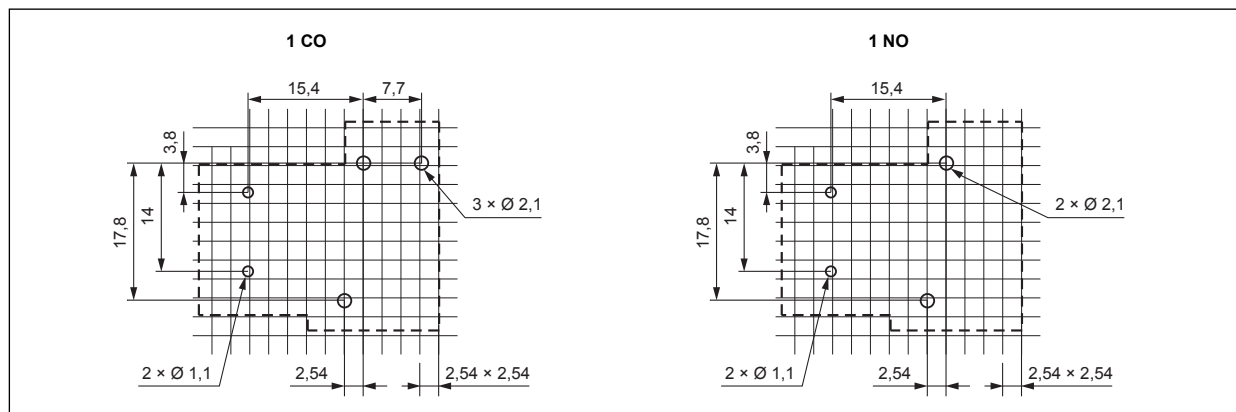
Dimensions



Connection diagrams (pin side view)



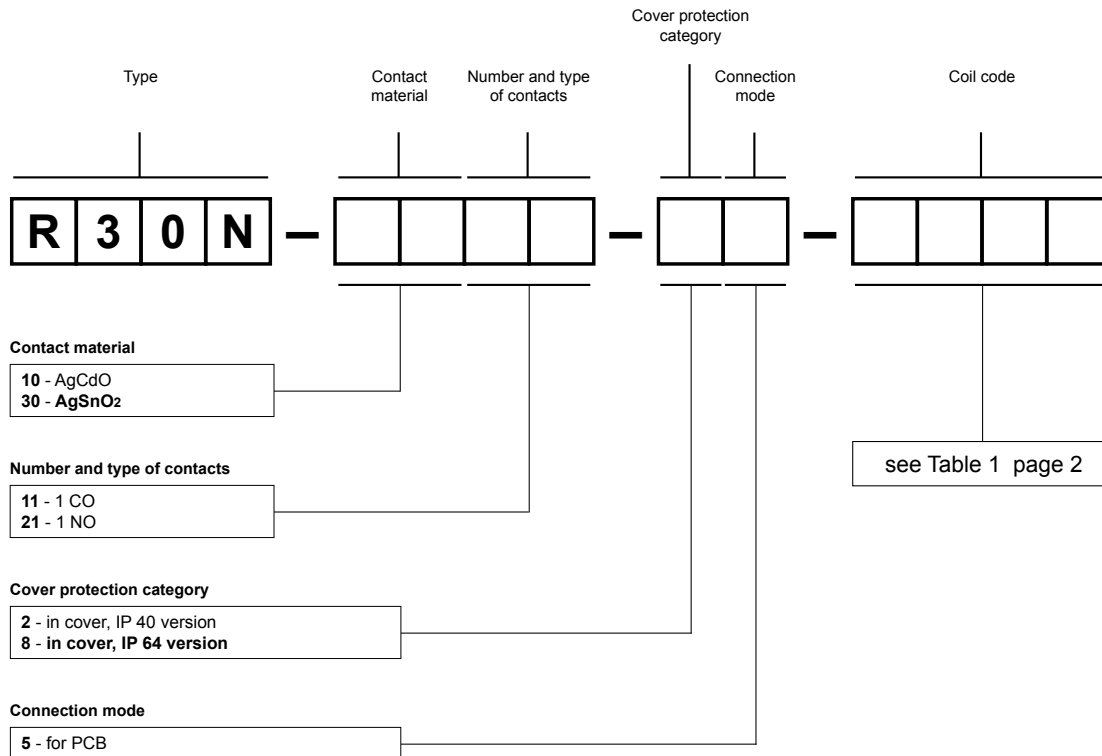
Pinout (solder side view)



Mounting

Relays **R30N** are designed for direct PCB mounting.

Ordering codes



Examples of ordering codes:

- R30N-3011-85-1012** relay **R30N**, for PCB, one changeover contact, contact material AgSnO₂, coil voltage 12 V DC, in cover IP 64
- R30N-1021-25-1024** relay **R30N**, for PCB, one normally open contact, contact material AgCdO, coil voltage 24 V DC, in cover IP 40

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.