

R30N

high power relays



- 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
- Applications: 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		AgSnO₂	
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, 12, 24, 48, 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 EN 60664-1

Insulation rated voltage		500 V AC	
Overvoltage category		II	
Flammability class		V-0	UL 94
Insulation resistance		> 1 000 MΩ	500 V DC, 60 s
Dielectric strength	• between coil and contacts • contact clearance	2 500 V AC	type of insulation: basic
		1 500 V AC	type of clearance: micro-disconnection, with contact gap ≥ 0,9 mm

General data

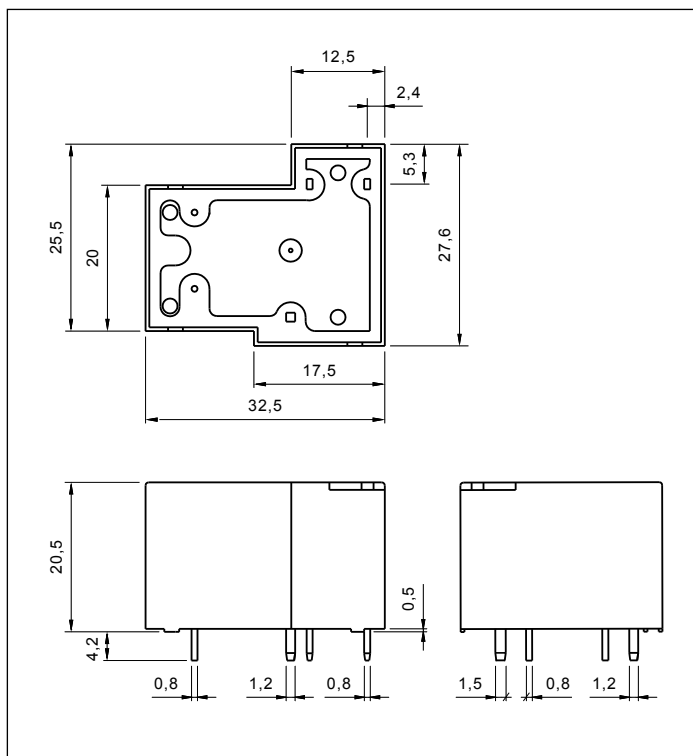
Operating / release time (typical values)		15 ms / 10 ms	
Electrical life			
• resistive AC1	1 200 cycles/hour	10 ⁵ 1 CO: 30 A / 20 A (NO/NC), 240 V AC	1 NO: 30 A, 240 V AC
• resistive DC1	1 200 cycles/hour	10 ⁵ 1 CO: 30 A / 20 A (NO/NC), 14 V DC	1 NO: 30 A, 14 V DC
Mechanical life (cycle)		10 ⁷	
Dimensions (L x W x H)		32,5 x 27,6 x 20,5 mm	
Weight		30 g	
Ambient temperature (non-condensation and/or icing)		-55...+100 °C	
Cover protection category		IP 64 or IP 67	EN 60529
Environmental protection		RTII or RTIII	EN 61810-1
Shock resistance		20 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.

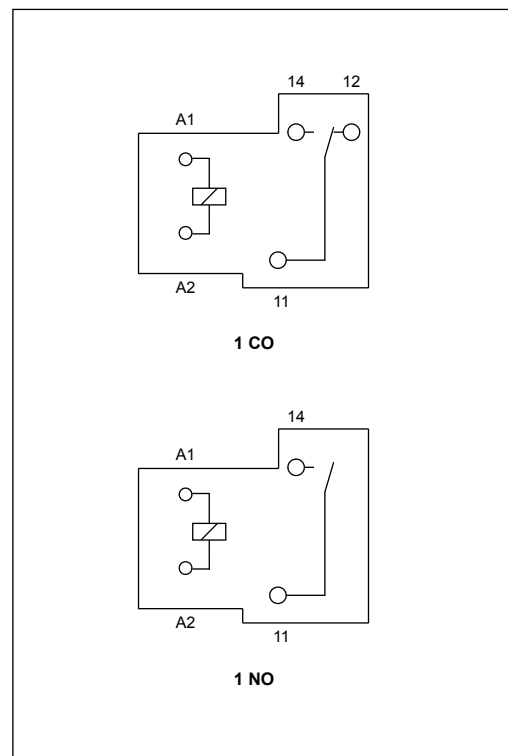
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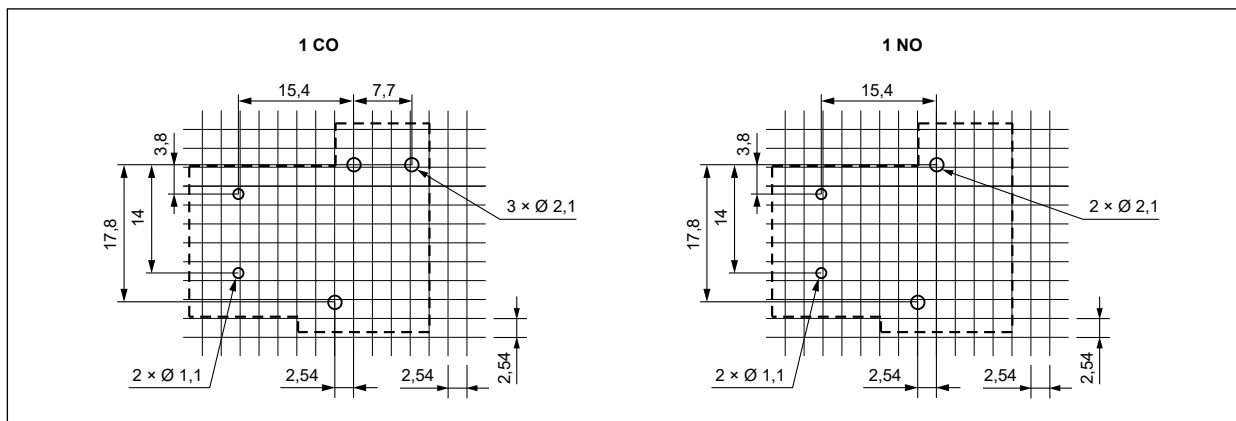
Dimensions



Connection diagrams (pin side view)



Pinout (solder side view)



Mounting

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

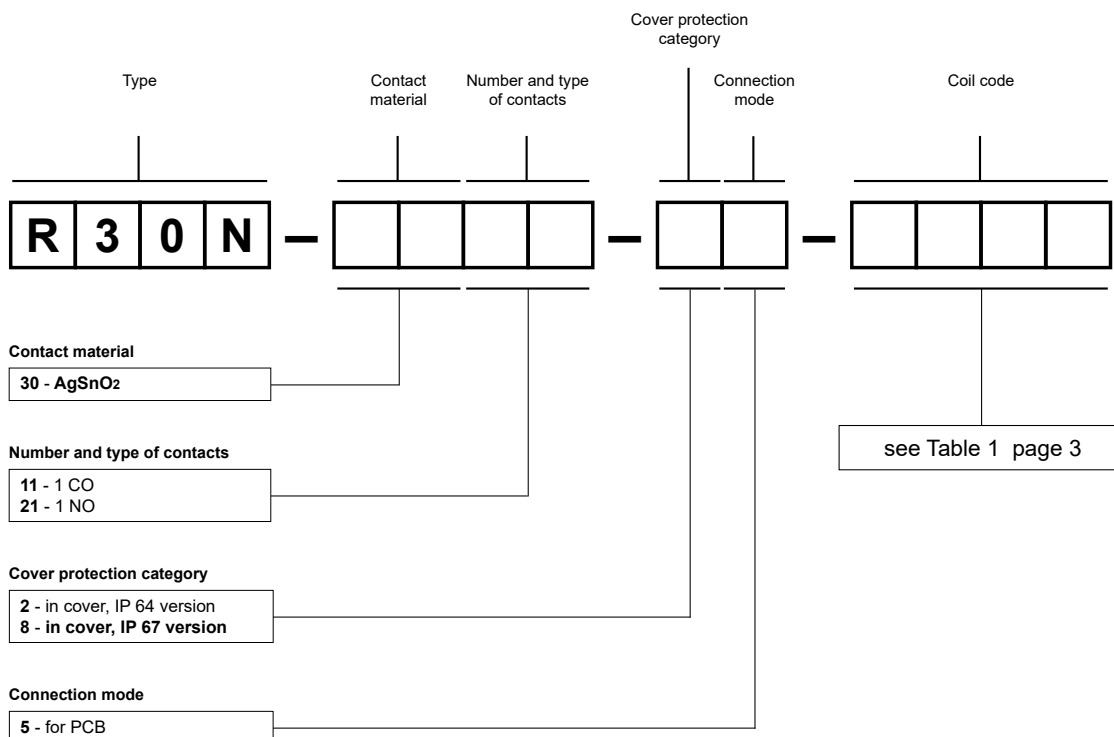
Coil data - DC voltage version

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

The data in bold type relate to the standard versions of the relays.04

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 67
- R30N-3021-25-1024** relay **R30N**, for PCB, one normally open contact, contact material AgSnO₂, coil voltage 24 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.