

R20

industrial relays of small dimensions

version 1 NO



version 2 NO



- High switching capacity up to 30 A
- "Bridge" type contacts which open the circuit with double break
- Flat insert connectors - faston 250 (6,3 x 0,8 mm)
- High resistance to interference • High strength of insulation
- Applications: household equipment; air-conditioning and ventilation systems; audio equipment; control devices; automation systems; photoelectric systems; etc.
- Recognitions, certifications, directives: RoHS,

Contact data

Number and type of contacts	1 NO, 2 NO	
Contact material	AgSnO₂	
Rated / max. switching voltage	AC	250 V / 440 V
Min. switching voltage		10 V
Rated load	AC1	1 NO: 30 A / 250 V AC 2 NO: 25 A / 250 V AC
Min. switching current		10 mA
Rated current		1 NO: 30 A 2 NO: 25 A
Max. breaking capacity	AC1	1 NO: 7 000 VA 2 NO: 6 250 VA
Min. breaking capacity		0,1 W
Contact resistance		≤ 100 mΩ

Coil data

Rated voltage	50/60 Hz AC	24, 115, 230 V
	DC	12, 24, 110 V
Must release voltage		DC: ≥ 0,1 U _n
Operating range of supply voltage		see Tables 1, 2
Rated power consumption	AC	1,7 VA 24, 48 V 2,5 VA 115, 230 V
	DC	1,9 W

Insulation according to EN 60664-1

Insulation rated voltage	250 V AC	
Dielectric strength		
• between coil and contacts	4 000 V AC	type of insulation: reinforced
• contact clearance	2 000 V AC	type of clearance: full-disconnection, with contact gap ≥ 3 mm
Contact - coil distance		
• clearance	≥ 9 mm	
• creepage	≥ 11 mm	

General data

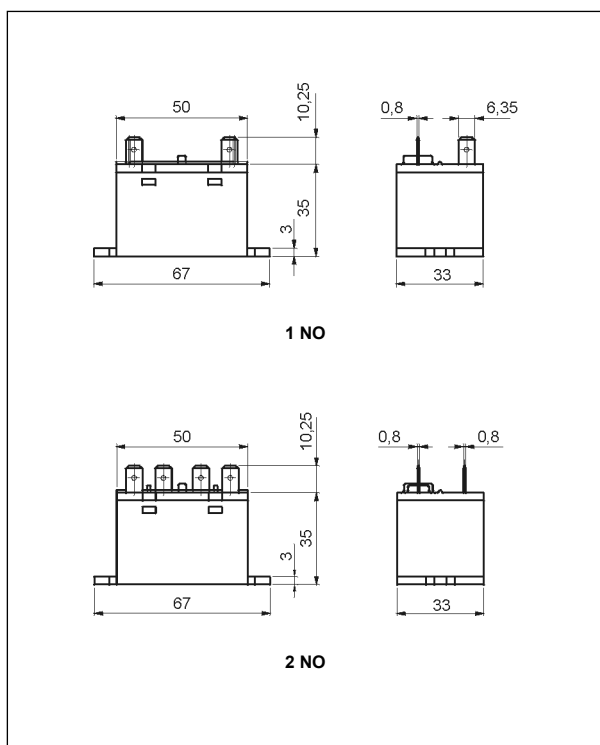
Operating / release time (typical values)	30 ms / 30 ms	
Electrical life		
• resistive AC1	1 200 cycles/hour	10 ⁵ 1Z: 30 A, 250 V AC 2Z: 25 A, 250 V AC
Mechanical life (cycles)		> 10 ⁷
Dimensions (L x W x H)	67 x 33 x 35 mm	
Weight	90 g	
Ambient temperature		
(non-condensation and/or icing)	• operating	-25...+75 °C
Cover protection category	IP 50	EN 60529
Environmental protection	RT1	EN 61810-1
Shock resistance	10 g	
Vibration resistance	1,5 mm DA (constant amplitude)	10...55 Hz

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

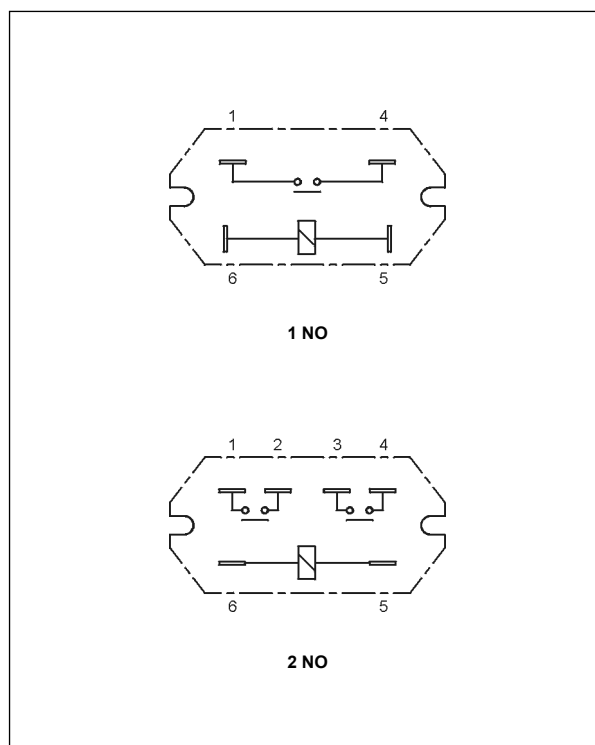
R20

industrial relays of small dimensions

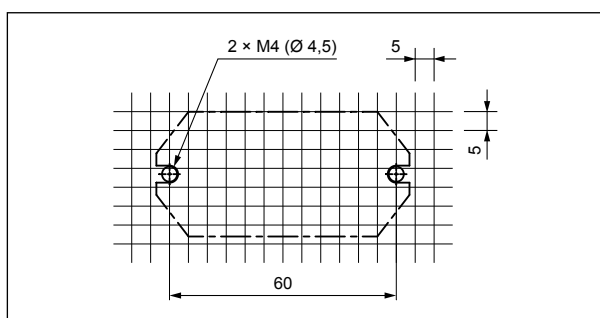
Dimensions



Connection diagrams (pin side view)



Pinout



Mounting

Relays **R20** are designed for flat insert connectors - faston 250 (6,3 x 0,8 mm), relays are direct on panel mounting with two M4 screws.

R20

industrial relays of small dimensions

Coil data - DC voltage version

Table 1

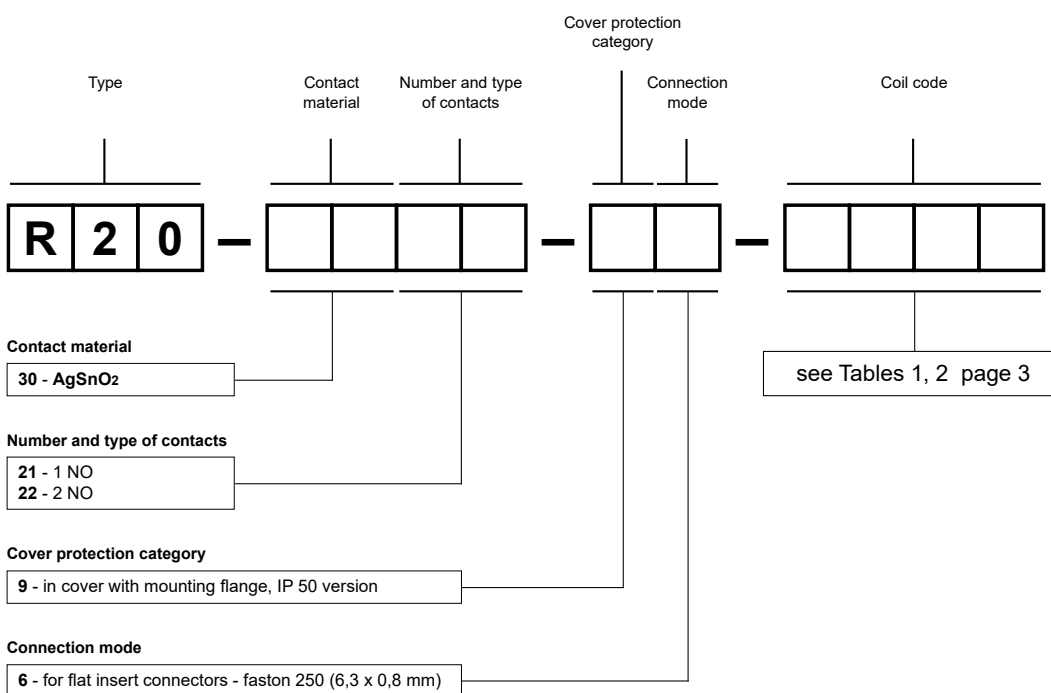
Coil code	Rated voltage V DC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 20 °C)
1012	12	75,8	± 10%	9,0	13,2
1024	24	303	± 10%	18,0	26,4
1110	110	6 400	± 10%	82,5	121,0

Coil data - AC 50/60 Hz voltage version

Table 2

Coil code	Rated voltage V AC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V AC	
				min. (at 20 °C)	max. (at 20 °C)
5024	24	12 260	± 10%	18,0	26,4
5115	115	75 600	± 10%	86,3	126,5
5230	230	104 500	± 10%	172,5	253,0

Ordering codes



Example of ordering code:

R20-3021-96-1012 relay R20, for flat insert connectors - faston 250 (6,3 x 0,8 mm), one normally open contact, contact material AgSnO₂, coil voltage 12 V DC, in cover with mounting flange IP 50

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.