2. Specifications

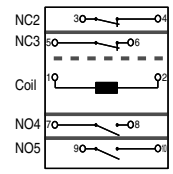
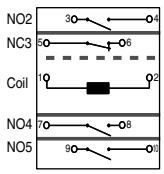
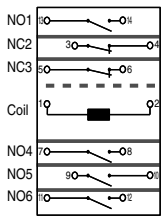
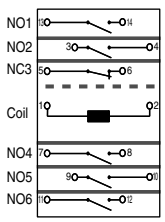
Characteristics	Item		Specifications	
			4-pole	6-pole
Contact	Contact arrangement		2 Form A 2 Form B, 3 Form A 1 Form B	4 Form A 2 Form B, 5 Form A 1 Form B
	Forcibly guided contacts		All contacts: Type A, EN 50205	
	Contact resistance (Initial)		Max. 100 mΩ (By voltage drop 6 V DC 1A)	
	Contact material		Au-flashed AgNi alloy type	
Rating	Nominal switching capacity (resistive load)		6A 250V AC, 6A 30V DC	
	Max. switching power (resistive load)		1,500VA, 180W	
	Max. switching voltage		250V AC, 30V DC	
	Max. switching current		6 A	
	Min. switching capacity (Reference value)*1		10mA 10V DC	
Electrical characteristics	Insulation resistance (Initial)		Min. 1,000MΩ (at 500V DC) Measurement at same location as “Breakdown voltage” section.	
	Breakdown voltage (Initial)	Between open contacts	1,500 Vrms for 1 min. (Detection current: 10mA)	
		Between contact sets	4,000 Vrms for 1 min. (Detection current: 10mA)	
		Between contact and coil	NC3: 2,500 Vrms for 1min; NO4: 4,000 Vrms for 1min (Detection current: 10mA)	
	Coil holding voltage*4		Min. 60%V (Initial, at 20°C 68°F)	
	Operate time (at 20°C 68°F)		Max. 20ms (Nominal coil voltage applied to the coil, excluding contact bounce time)	
	Release time (at 20°C 68°F)		Max. 10ms (Nominal coil voltage applied to the coil, excluding contact bounce time) (without diode)	
Mechanical characteristics	Shock resistance	Functional	200 m/s² (Half-wave pulse of sine wave: 11 ms; detection time: 10μs)	
		Destructive	1,000 m/s² (Half-wave pulse of sine wave: 6 ms)	
	Vibration resistance	Functional	10 to 55 Hz at double amplitude of 1.5 mm .059 inch (Detection time: 10μs)	
		Destructive	10 to 55 Hz at double amplitude of 1.5 mm .059 inch	
Expected life	Mechanical		Min. 10^7 (at 180 times/min.)	
	Electrical		250 V AC 6 A resistive load: Min. 10^5 (at 20 times/min.)	
Degree of protection			RT III*3	
Conditions	Conditions for operation, transport and storage*2		Ambient temperature: –40°C to +70°C –40°F to +158°F Humidity: 5 to 85% R.H. (Not freezing and condensing at low temperature)	
	Max. Operating speed		20 times/min. (at nominal voltage)	
Unit weight			Approx. 19 g .67 oz	Approx. 23 g .81 oz

Notes: *1. This value can change due to the switching frequency, environmental conditions, and desired reliability level, therefore it is recommended to check this with the actual load.
*2. The upper limit of the ambient temperature is the maximum temperature that can satisfy the coil temperature rise value. Refer to Usage, transport and storage conditions in NOTES.
*3. According to EN 61810-1:2010, table 2. Characteristic is sealed construction with terminals, case and base sealed shut with sealing resin. Construction is designed to prevent seeping of flux when soldering and cleaning fluid when cleaning. Harmful substances on the contacts are removed by gas purging before sealing with.
*4. Coil holding voltage is the coil voltage after 100 ms from the applied nominal voltage.

Important: Relay characteristics may be influenced by:

- strong external magnetic fields
- magnetic conductive materials near the relay
- narrow top-to-top mounting (printed surface to printed surface)

Insulation

2 Form A 2 Form B	3 Form A 1 Form B	4 Form A 2 Form B	5 Form A 1 Form B
			

——— = Reinforced insulation: overvoltage category III, pollution degree 2, 250V AC
(Clearance and creepage distance is 5.5 mm .217 inch or more between contact sets shown by “———”. Also, there is 5.5 mm .217 inch or more clearance and creepage distance even between contact NO4 and coil.)
- - - - = Basic insulation: overvoltage category III, pollution degree 3, 250V AC
(Between contact NC3 and coil shown by “- - - -”, the clearance is 3 mm .118 inch or more and the creepage distance is 4 mm .157 inch or more.)

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Other contact gaps when contacts are welded

The table below shows the state of the other contacts.
In case of form “NO” contact weld the coil applied voltage is 0 V.
In case of form “NC” contact weld the coil applied voltage is nominal.

<2 Form A 2 Form B>

		State of other contacts			
		3-4 (NC)	5-6 (NC)	7-8 (NO)	9-10 (NO)
Welded terminal No.	3-4 (NC)			>0.5	>0.5
	5-6 (NC)			>0.5	>0.5
	7-8 (NO)	>0.5	>0.5		
	9-10 (NO)	>0.5	>0.5		

<3 Form A 1 Form B>

		State of other contacts			
		3-4 (NC)	5-6 (NO)	7-8 (NO)	9-10 (NO)
Welded terminal No.	3-4 (NC)		>0.5	>0.5	>0.5
	5-6 (NO)	>0.5			
	7-8 (NO)	>0.5			
	9-10 (NO)	>0.5			

<4 Form A 2 Form B>

		State of other contacts					
		3-4 (NC)	5-6 (NC)	7-8 (NO)	9-10 (NO)	11-12 (NO)	13-14 (NO)
Welded terminal No.	3-4 (NC)			>0.5	>0.5	>0.5	>0.5
	5-6 (NC)			>0.5	>0.5	>0.5	>0.5
	7-8 (NO)	>0.5	>0.5				
	9-10 (NO)	>0.5	>0.5				
	11-12 (NO)	>0.5	>0.5				
	13-14 (NO)	>0.5	>0.5				

<5 Form A 1 Form B>

		State of other contacts					
		3-4 (NC)	5-6 (NO)	7-8 (NO)	9-10 (NO)	11-12 (NO)	13-14 (NO)
Welded terminal No.	3-4 (NC)		>0.5	>0.5	>0.5	>0.5	>0.5
	5-6 (NO)	>0.5					
	7-8 (NO)	>0.5					
	9-10 (NO)	>0.5					
	11-12 (NO)	>0.5					
	13-14 (NO)	>0.5					

>0.5: contact gap is kept at min. 0.5 mm .020 inch
Empty cells: either ON or OFF
Note: Contact gaps are shown at the initial state.
If the contact transfer is caused by load switching, it is necessary to check the actual loading.

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