For normal/reverse rotation motor control

- 8-terminal dual relay. Separate coil and contact terminals.
- Compact size but its power contacts and heatrelease design achieved a high current switching.



■ Purpose

• To control the normal/reverse of the DC motor for automotive (Door lock motor, Power window motor, Sunroof motor, etc.)

■ Type standard

G8ND-

	Classification	Symbol	Meaning of the symbol
1	Number of contact poles/Structure	2	1cx2 contacts (SPDTx2, H-Bridge)
2	Protective structure	Blank	Simple plastic seal
		7	Flux protection (Open vent hole)
3	Characteristics	Blank	Standard
		S	Low operating voltage
		U	Super low operating voltage
4	Special specification	Blank	Standard
		R	High heat registance

Classification

Classificati on	Terminal form	Contact structure	Protective structure	Rate	Rated coil		Characteristics
				Voltage (V)	Resistance (Ω)	Туре	Characteristics
	PCB terminal	SPDT X 2 (1cx2) (H-Bridge)	Simple plastic seal		225	G8ND-2	Standard
					180	G8ND-2S	Low operating voltage
Dual				DC12	130	G8ND-2U	Super low operating voltage
Dual			Flux protection (Open vent hole)	DC12	225	G8ND-27R	Standard
					180	G8ND-27SR	Low operating voltage
					130	G8ND-27UR	Super low operating voltage

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Ratings

Operation coil

Rated voltage (V)	Coil resistance (Ω)	Rated current (mA)	Operating voltage (V)	Release voltage (V)	Max. of applied voltage (5A conduct, 85°C) (V)	Service voltage range (V)	Rated power consumption (mW)
	225	53.3	7.2 or less	1.0 or more	DC16, 15 min.		640
DC 12	180	66.7	6.5 or less	1.0 or more	DC16, 5 min.	DC10 to 16	800
	130	92.3	5.5 or less	0.8 or more	DC16, 3 min.]	1108

Switching area

Item	Performance	
Contact material	Silver alloy	
Rated voltage	DC12V	
Rated load	Motor load, 25A	
Inrush current	30A	
Allowable carrying current	25A at DC14V (10min)*1	(Reference)
Min. Carry / Switching Current	DC12V 1A	(Reference)

Performance

Item		Standard value		
Contact resistance*2		50m Ω or less		
Operating time	*3	10ms or less		
Release time*3		5ms or less		
Insulation resistance ^{*4}	Between coil and terminal	100M Ω or more		
	Between homopolar contacts	100M Ω or more		
Withstand	Between coil and terminal	AC500V for 1min.		
voltage*5	Between homopolar contacts	AC500V for 1 min.		
Vibration resistance	Durability	33Hz 45m/s ²		
	Malfunction (Detecting time:1ms)	10 to 55Hz 45m/s ²		
Shock resistance	Durability	1000m/s ² (Operating time:6ms)		
	Malfunction (Detecting time:1ms)	100m/s ² (Operating time:11ms)		
Mechanical endurance (Switching frequency:18,000 times/h)		1,000,000 times		
Electrical endu	rance (Rated load)	100,000 times		
Ambient tempe	erature	-40 to 85°C		
Ambient humid	lity	35 to 85%RH		
Weight		7.5g		

Packing

Packing form	Stick
MOQ*6	1,200pcs (40pcs×30sticks)

Note: All values above are measured in early time under an ambient temperature of +20°C and humidity of 65% unless stated. *1. This is an acceptable current-carrying value in abnormal, and this is not a value which guarantee a repeat current-carrying. Please check under actual use condition before use.

*2. Measured with a voltage drop method at DC6V 1A.
*3. It changes depend on how the rated voltage is operated, but bounce-time is not included.

*4. Measured at DC500V.

Measured under 1mA of leak current, 50/60Hz for 1minute.
 Minimum Order Quantity is subject to change, please feel free to contact our sales representatives.

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■ Dimensions (Unit: mm)



* Tolerance unless otherwise specified Less than 1 mm: ±0.1 mm Less than 1 to 3 mm: ±0.2 mm 3 mm or more: ±0.3 mm

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