

OMRON

Ultra-Miniature Automotive Dual PCB Relay

G8ND2

Ultra-Miniature Automotive Dual PCB Relay

- Compact size
- High performance PCB relay
- 25A motor lock load
- Fully sealed construction
- Fully automated assembly
- DPDT ("H" Bridge) contracts
- Pre-solder as for all terminal
- PWB pattern design is easy
- ISO9001/QS9000 series approval



Available Types

	Type
G8ND-2 12VDC	Standard
G8ND-2S 12VDC	High Sensitivity

Contact Data

Max Switching Current	30A
Rated Current	25A Motor load
Max Switching Voltage	16V
Contact Material	Silver tin alloy (Cadmium Free)

Coil Ratings

Type	Coil Resistance	Pull in Voltage
G8ND-2 12VDC	225Ω	<7.2
G8ND-2S 12VDC	180Ω	<6.5

Specifications

Temperature Range	-40 to +85°C
Mechanical Life	1,000,000 Operations
Electrical Life	100,000 Operations
Weight	7.5g

Application Examples

- Power windows
- Power door lock
- Seat adjustment
- Sunroof
- Wiper controls

LIFE TEST I (Power window motor: G8ND-2 12VDC)

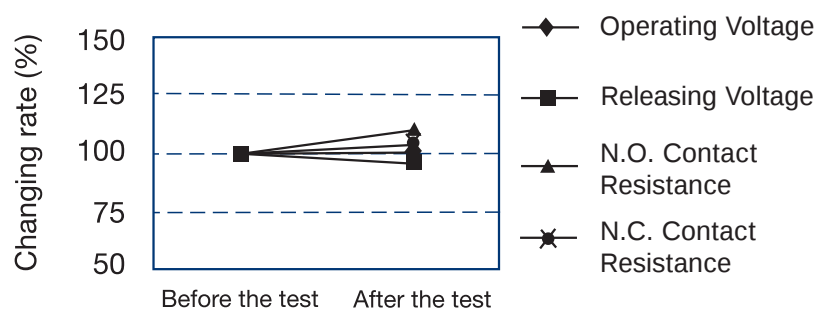
■ Test item

14VDC-24A/2.6A

130,000

Operations minimum

■ Shift of pick-up drop-out voltage



Contact Resistance (milliohm)	N.O. Contact	100 or lower	MAX	4.20	5.62
			MIN	3.30	3.80
			AVE	3.850	4.230
	N.C. Contact	100 or lower	MAX	5.00	5.10
			MIN	3.20	4.10
			AVE	4.320	4.490
Structure		No abnormal condition		Good	Good

LIFE TEST II (Door lock motor: G8ND-2 12VDC)

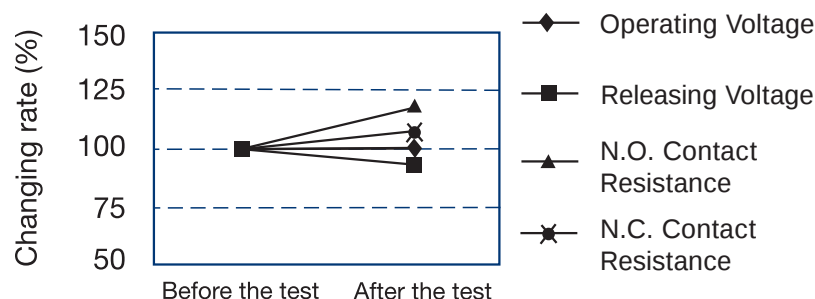
■ Test item

14VDC-27A

130,000

Operations minimum

■ Shift of pick-up drop-out voltage



Contact Resistance (milliohm)	N.O. Contact	100 or lower	MAX	4.20	5.60
			MIN	3.50	3.60
			AVE	3.669	4.290
	N.C. Contact	100 or lower	MAX	4.30	5.90
			MIN	3.90	4.10
			AVE	4.120	4.360
Structure		No abnormal condition		Good	Good

VIBRATION RESISTANCE CHARACTERISTICS

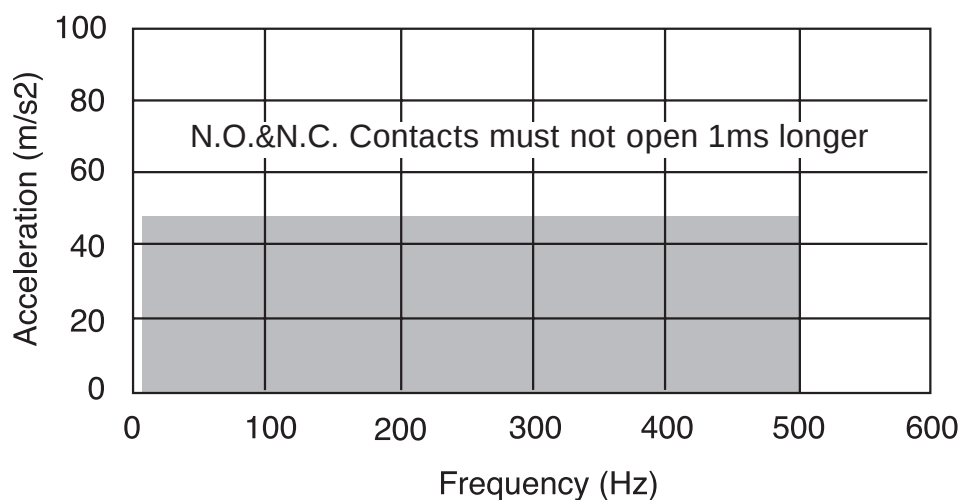
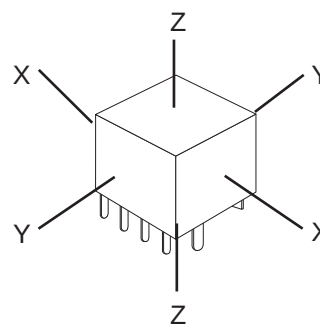
■ Test condition

Frequency: 10Hz-500Hz-10Hz

Acceleration: 45m/s²

Direction of vibration: see right diagram

Detection level: Contacts must not open 1ms or longer



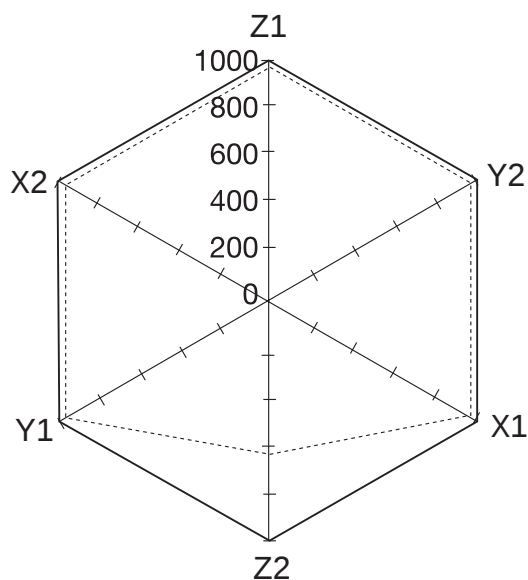
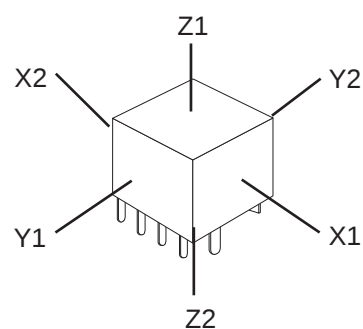
SHOCK RESISTANCE CHARACTERISTICS

■ Test condition

Shock application time: 11ms, half-sine wave

Shock direction: see right diagram

Detection level: Contacts must not open 1ms or longer

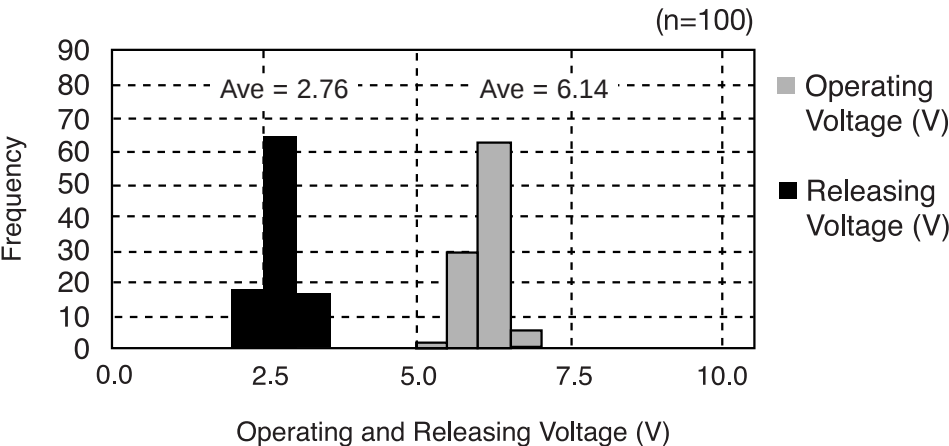


—— N.C. Contact

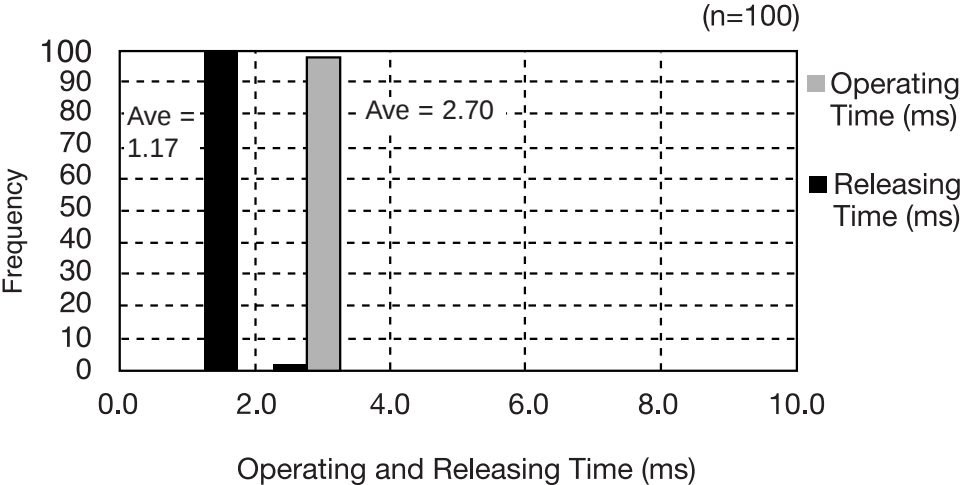
----- N.O. Contact

REFERENCE DATA (G8ND-2 12VDC)

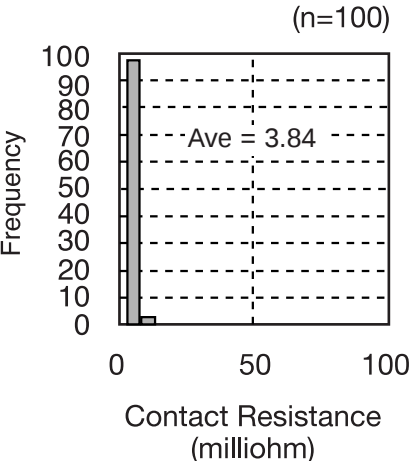
Distribution of operating voltage and releasing voltage



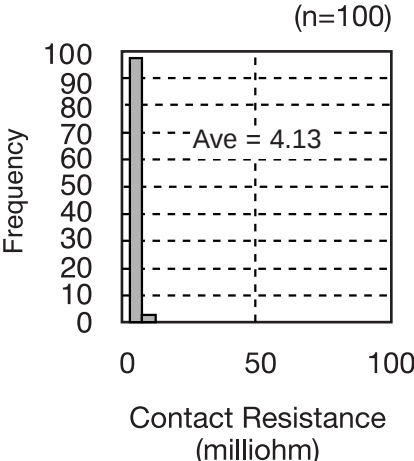
Distribution of operating time



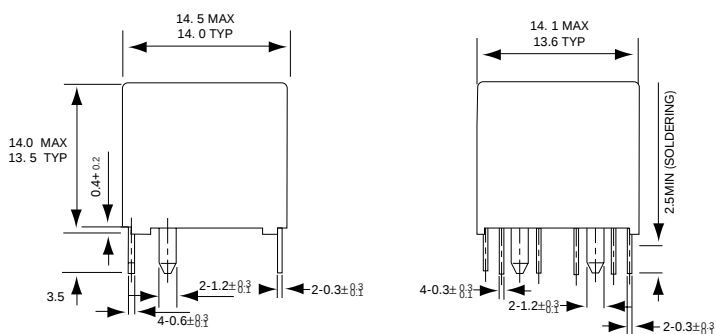
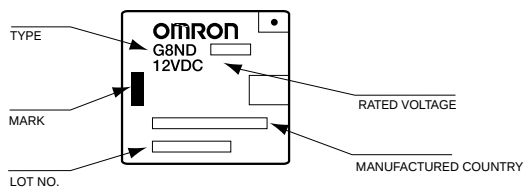
N.O. contact - Distribution of contact resistance



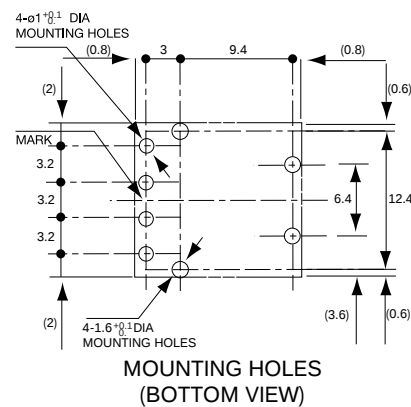
N.C. contact - Distribution of contact resistance



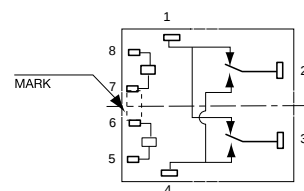
Dimensions



TOLERANCE: ±0.1mm



MOUNTING HOLES
(BOTTOM VIEW)

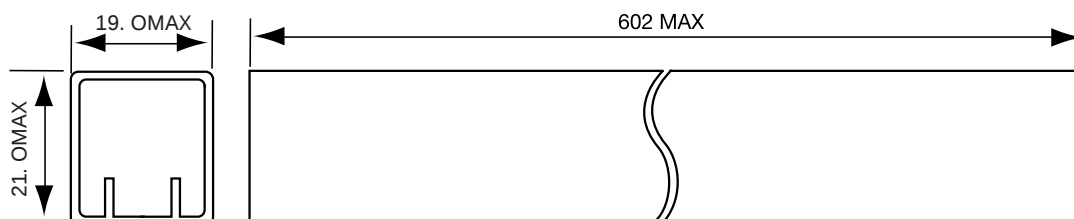


TERMINAL ARRANGEMENT/
INTERNAL CONNECTIONS
(BOTTOM VIEW)

- Omron PCB relays may be mounted in any convenient location that is dry and not exposed to excessive dust, SO₂, H₂S or organic gases.

- Omron PCB relays may be oriented in any desired direction. Whenever possible, however, care should be taken that they are not subjected to vibration along the direction of contact movement.

- Tube carrier



Remarks

For use on any of the products, please contact your sales representative and confirm with spec sheet and actual usage condition.

We constantly endeavor to enhance the quality of our products and update our product offering; therefore, specifications and product availability are subject to change without notice.

Cat. No. C-G8ND2-001 In the interest of product improvement, specifications are subject to change without notice.

OMRON

LEADERS IN ELECTRONIC COMPONENTS

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