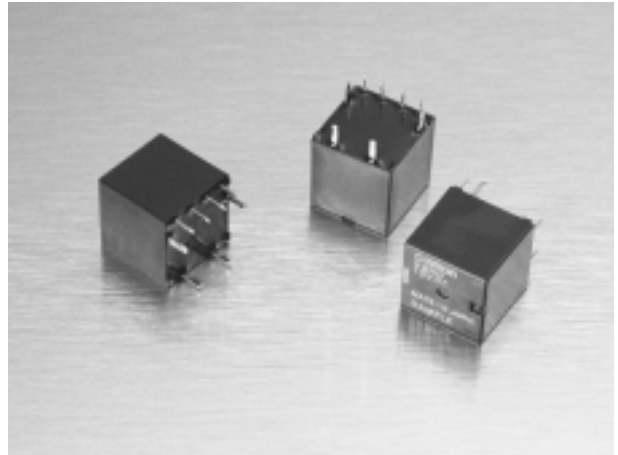


Ultra-Miniature Automotive Dual PCB Relay

- 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 |

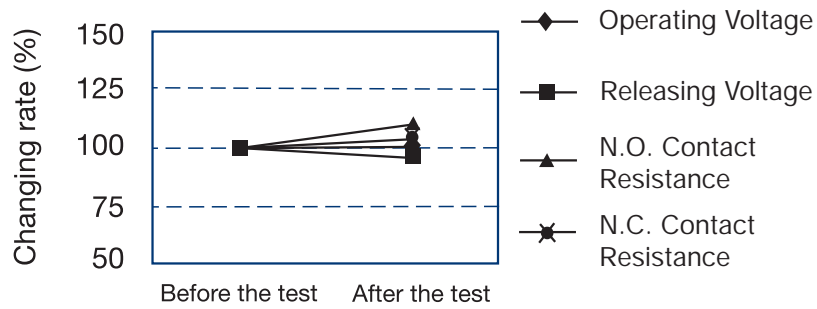
Application Examples

- 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

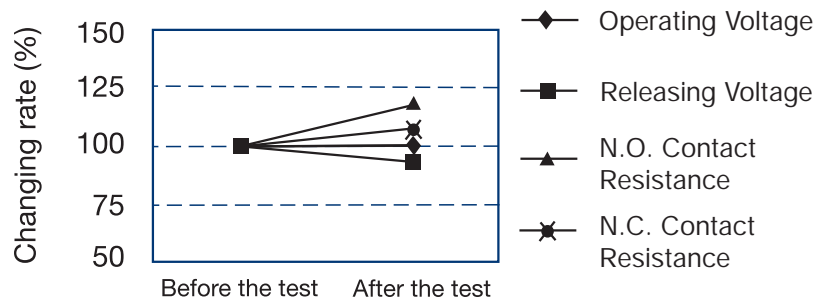


| | | | | | |
|-------------------------------|--------------|-----------------------|------|-------|-------|
| Contact Resistance (milliohm) | N.O. Contact | 100 or lower | MAX | 4.20 | 5.62 |
| | | | MIN | 3.30 | 3.80 |
| | | | AVE | 3.850 | 4.230 |
| | N.C. Contact | 100 or lower | MAX | 5.00 | 5.10 |
| | | | 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

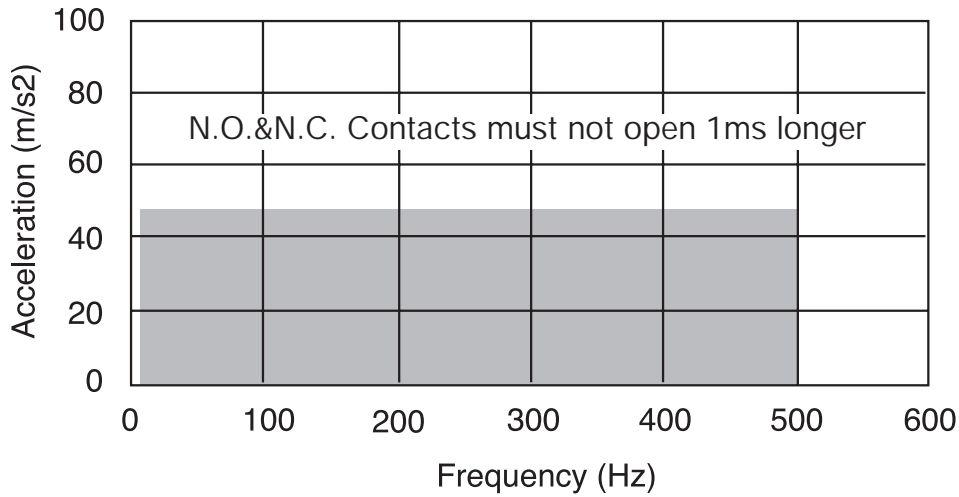
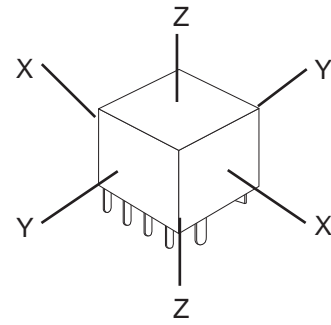
■ Shift of pick-up drop-out voltage



| | | | | | |
|-------------------------------|--------------|-----------------------|------|-------|-------|
| 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 | |

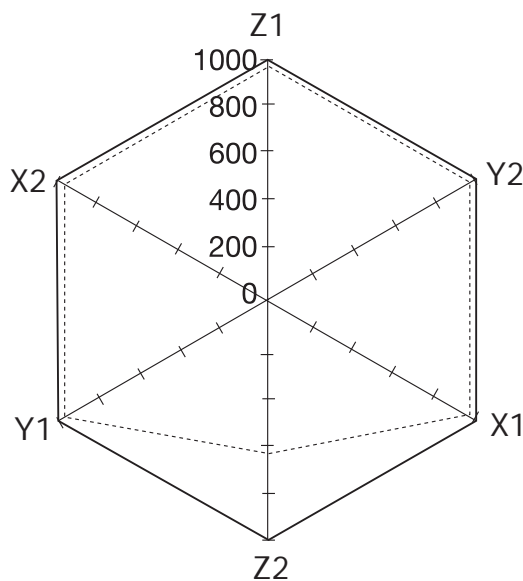
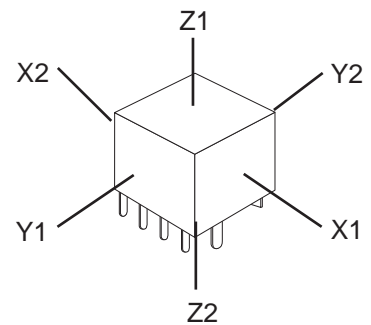
VIBRATION RESISTANCE CHARACTERISTICS

- 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

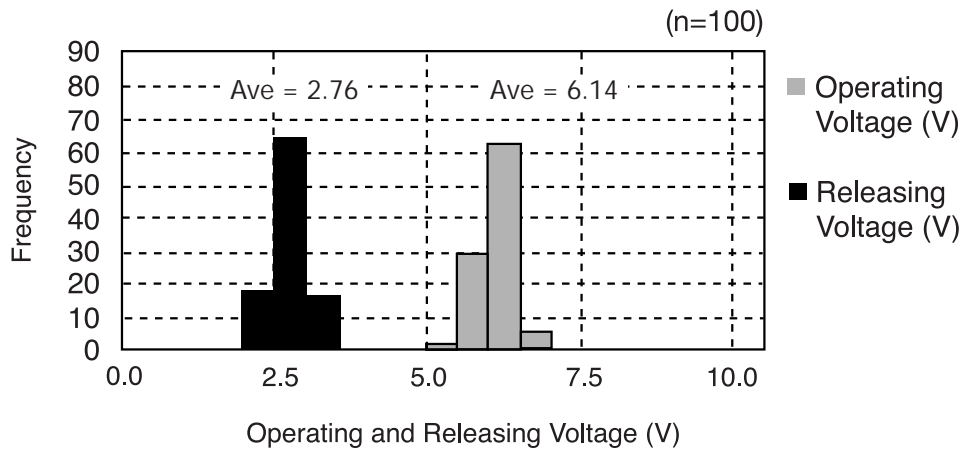
- Test condition
 - Shock application time: 11ms, half-sine wave
 - Shock direction: see right diagram
 - Detection level: Contacts must not open 1ms or longer



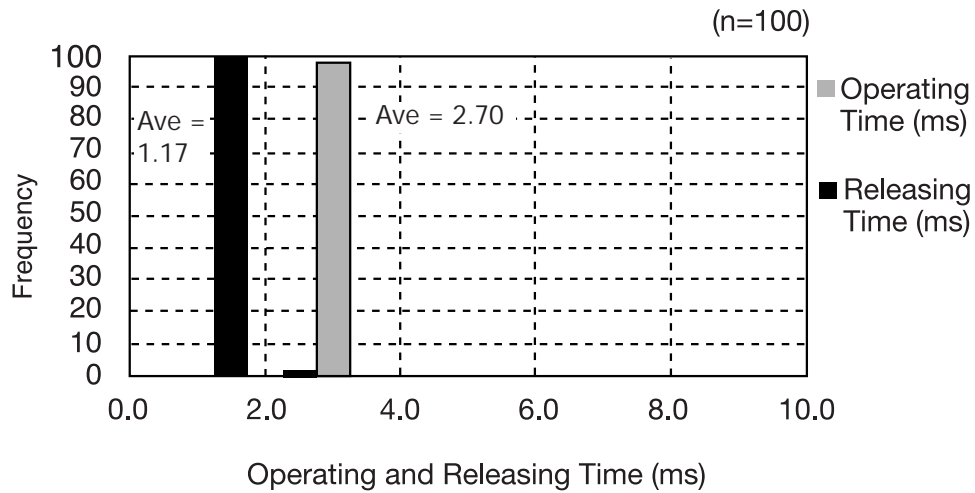
— N.C. Contact
 - - - N.O. Contact

REFERENCE DATA (G8ND-2 12VDC)

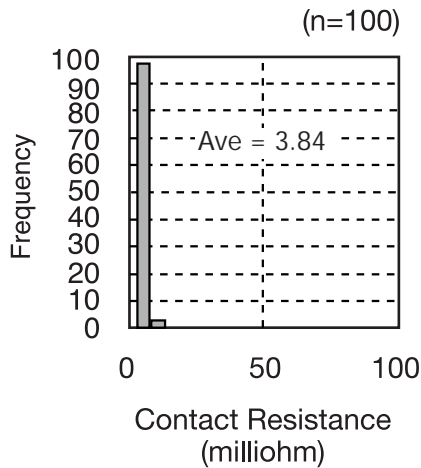
Distribution of operating voltage and releasing voltage



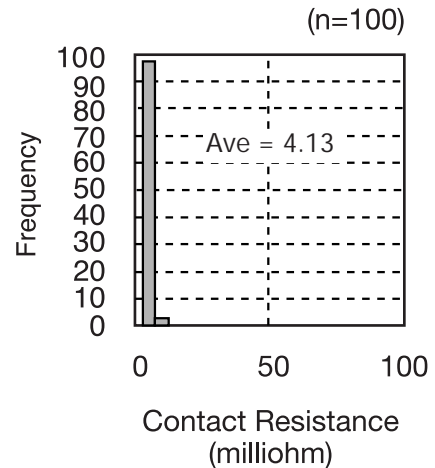
Distribution of operating time



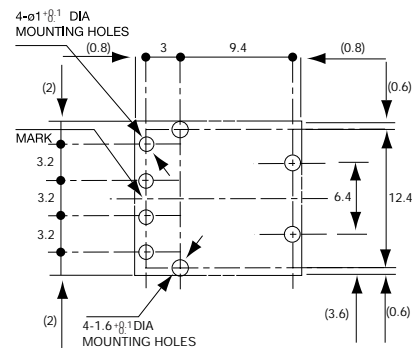
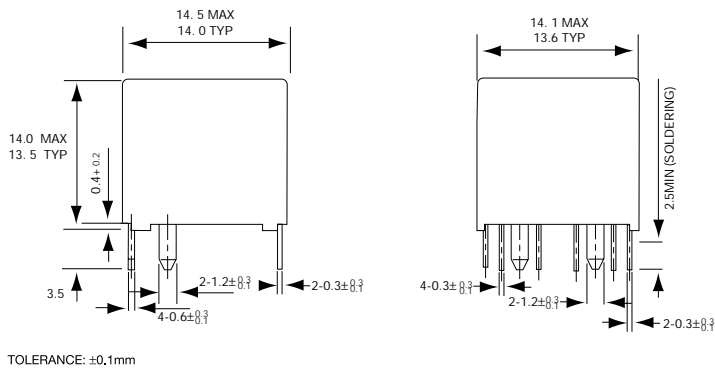
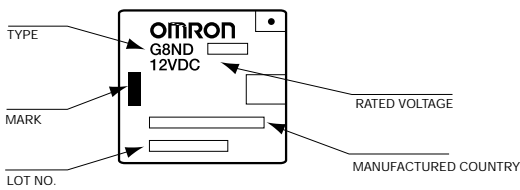
N.O. contact - Distribution of contact resistance



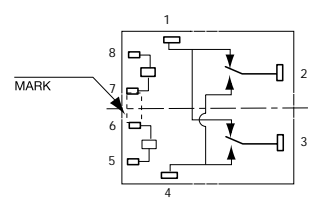
N.C. contact - Distribution of contact resistance



Dimensions



MOUNTING HOLES (BOTTOM VIEW)

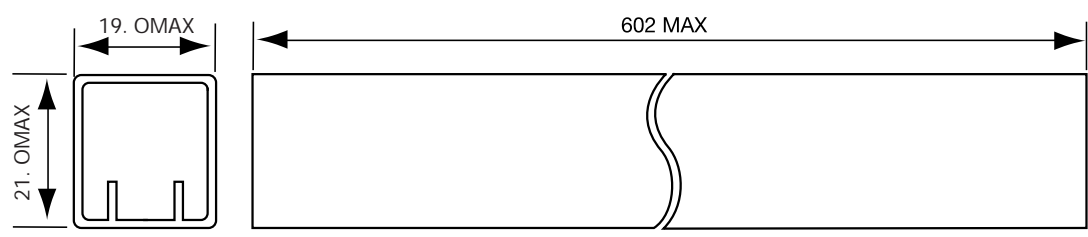


TERMINAL ARRANGEMENT/ INTERNAL CONNECTIONS (BOTTOM VIEW)

■ Omron PCB relays may be mounted in any convient 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

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