

OMR series

Dry Reed Relay

Telecommunications, Office Machines.

UL File No. E82292

Features

- Low cost, small package dry reed relay.
- 1 Form A contact and 2 Form A arrangements.

Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO), 2 Form A (DPST-NO).

Material: Rh, Ru.

Max. Switching Rate: 300 ops./min. (no load).
30 ops./min. (rated load).

Expected Mechanical Life: 100 million operations (no load).

Expected Electrical Life: 1,000,000 operations (rated load).

Minimum Load: 1mA @ 1VDC.

Initial Contact Resistance: 150 milliohms @ 100mA, 6VDC.

Contact Ratings

Ratings:

100µA @ 5VDC, 100,000,000 operations.

1mA @ 5VDC, 50,000,000 operations.

5mA @ 5VDC, 50,000,000 operations.

5mA @ 12VDC, 50,000,000 operations.

10mA @ 12VDC, 50,000,000 operations.

100mA @ 12VDC, 10,000,000 operations.

100mA @ 24VDC, 7,000,000 operations.

200mA @ 24VDC, 7,000,000 operations.

400mA @ 24VDC, 5,000,000 operations.

Max. Switched Voltage: AC: 120V.
DC: 60V.

Max. Switched Current: 1A (OMR-F), 0.5A (OMR-H).

Max. Switched Power: OMR-F: 50VA, 50W.
OMR-H: 10VA, 10W.

Initial Dielectric Strength

Between Open Contacts: 200VDC. (1 second).

Between Coil and Contacts: 3,000VDC. (1 second).

Surge Voltage Between Coil and Contacts: 3,000V (10 / 160µs).

Initial Insulation Resistance

Between Mutually Insulated Elements: 1,000M ohms min. @ 100VDCM.

Coil Data

Voltage: 3 to 24VDC.

Nominal Power: 100 mW to 280mW.

Coil Temperature Rise: 30°C max., at rated coil voltage.

Max. Coil Power: 160% of nominal.

Duty Cycle: Continuous.

Coil Data @ 20°C

| OMR | | | | |
|--------------------------|----------------------|------------------------------|----------------------------|----------------------------|
| Rated Coil Voltage (VDC) | Nominal Current (mA) | Coil Resistance (ohms) ± 10% | Must Operate Voltage (VDC) | Must Release Voltage (VDC) |
| 3 | 47.6 | 63 | 2.10 | 0.30 |
| 5/6 | 24.0 | 250 | 3.50 | 0.50 |
| 9 | 12.9 | 700 | 6.30 | 0.90 |
| 12 | 11.4 | 1,050 | 8.40 | 1.20 |
| 24 | 11.5 | 2,080 | 16.80 | 2.40 |

Operate Data

Must Operate Voltage: 70% of nominal voltage or less.

Must Release Voltage: 10% of nominal voltage or more.

Operate Time: 1.0 ms max.

Release Time: 0.5 ms max.

Environmental Data

Temperature Range:

Operating: -30°C to +70°C

Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude

Operational: 10 to 55 Hz., 1.5mm double amplitude.

Shock, Mechanical: 1,000m/s² (100G approximately).

Operational: 100m/s² (10G approximately).

Operating Humidity: 20 to 85% RH. (Non-condensing)

Mechanical Data

Termination: Printed circuit terminals.

Enclosure (94V-0 Flammability Ratings):

OMR: Open, no cover.

OMR-C: Snap-on dust cover.

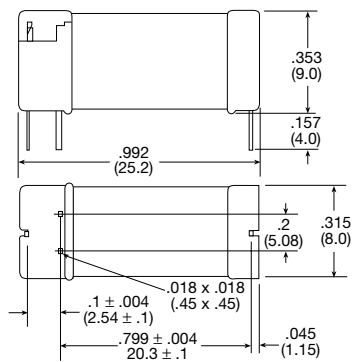
Weight: 0.16 oz (4.5g) approximately.

Ordering Information

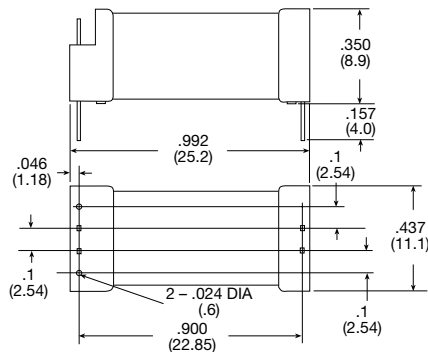
| Typical Part Number ▶ | | OMR | -C | -1 | 12 | H |
|--|--|-----|----|----|----|---|
| 1. Basic Series: OMR = Dry Reed Relay. | | | | | | |
| 2. Enclosure: Blank = Open, no cover. C = Snap-on dust cover. | | | | | | |
| 3. Termination: 1 = 1 pole 2 = 2 pole | | | | | | |
| 4. Coil Voltage: 03 = 3VDC 09 = 9VDC 24 = 24VDC 06 = 6VDC 12 = 12VDC | | | | | | |
| 5. Contact Rating: H = 0.5A @ 120VAC F = 1A @ 120VAC | | | | | | |

Outline Dimensions

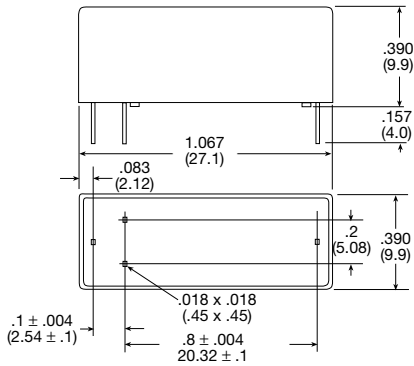
Open Type, 1 Form A



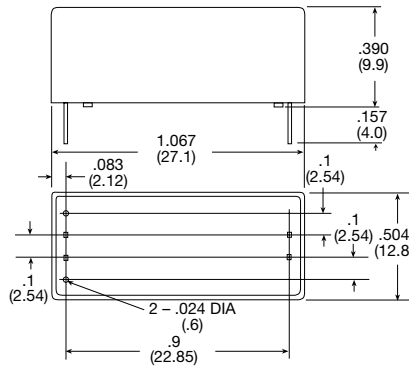
Open Type, 2 Form A



Snap-on Dust Cover Type, 1 Form A

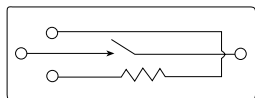


Snap-on Dust Cover type, 2 Form A

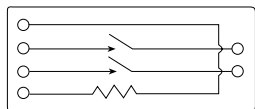


Wiring Diagrams (Bottom View)

1 Form A

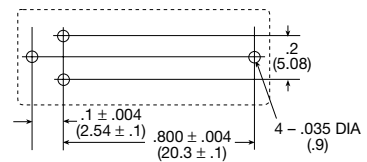


2 Form A



PC Board Layout (Bottom View)

1 Form A



2 Form A

