

## 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/s<sup>2</sup> (100G approximately).

**Operational:** 100m/s<sup>2</sup> (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.

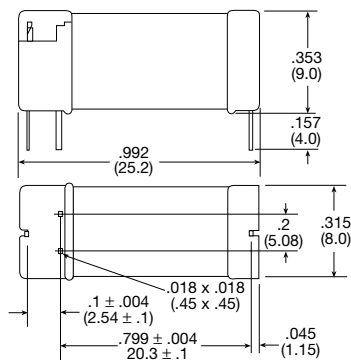
**Weight:** 0.16 oz (4.5g) approximately.

**Ordering Information**

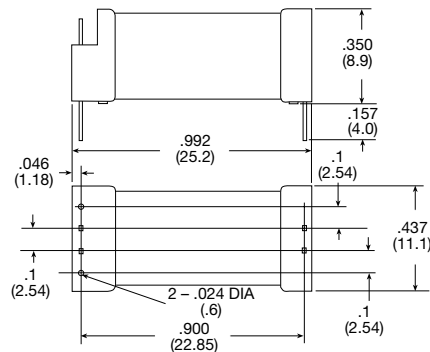
| Typical Part Number ▶                                                                                                                            |  | OMR | -C | -1 | 12 | H |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|----|----|----|---|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

**Outline Dimensions**

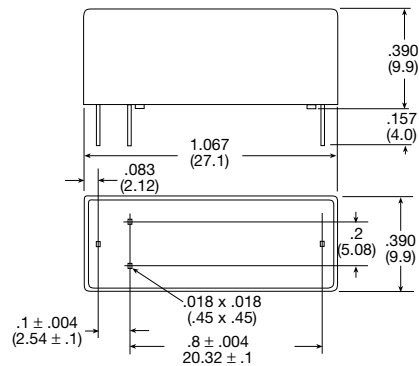
**Open Type, 1 Form A**



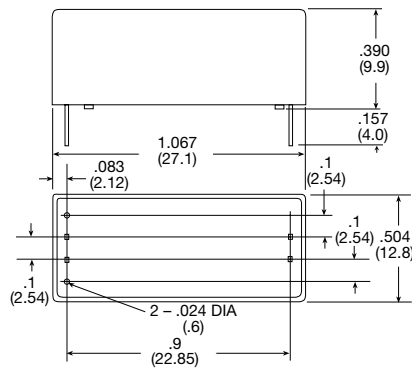
**Open Type, 2 Form A**



**Snap-on Dust Cover Type, 1 Form A**

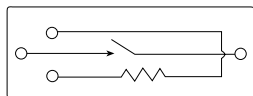


**Snap-on Dust Cover type, 2 Form A**

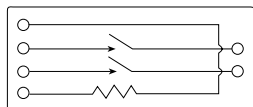


**Wiring Diagrams (Bottom View)**

**1 Form A**

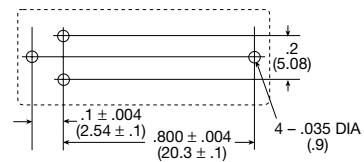


**2 Form A**



**PC Board Layout (Bottom View)**

**1 Form A**



**2 Form A**

