

# 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.

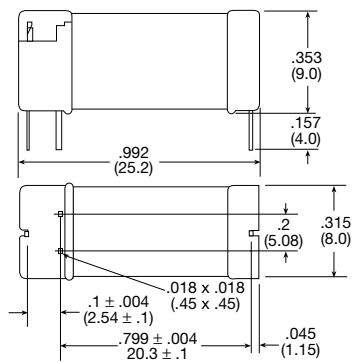
**Weight:** 0.16 oz (4.5g) approximately.

**Ordering Information**

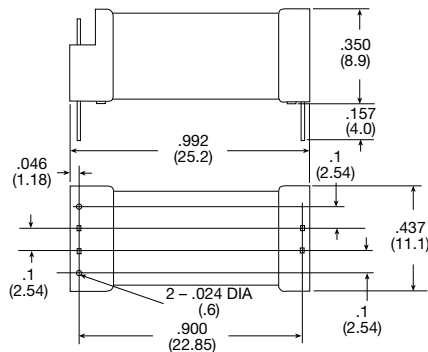
Typical Part Number ▶		OMR	-C	-1	12	H
<b>1. Basic Series:</b> OMR = Dry Reed Relay.						
<b>2. Enclosure:</b> Blank = Open, no cover. C = Snap-on dust cover.						
<b>3. Termination:</b> 1 = 1 pole                      2 = 2 pole						
<b>4. Coil Voltage:</b> 03 = 3VDC                      09 = 9VDC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

**Outline Dimensions**

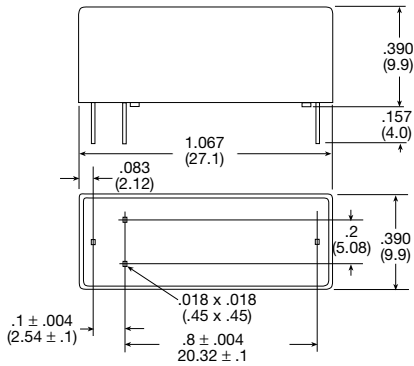
**Open Type, 1 Form A**



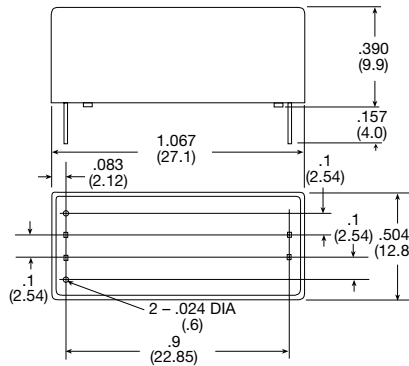
**Open Type, 2 Form A**



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

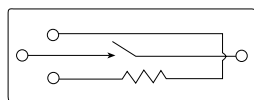


**Snap-on Dust Cover type, 2 Form A**

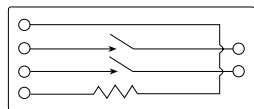


**Wiring Diagrams (Bottom View)**

**1 Form A**

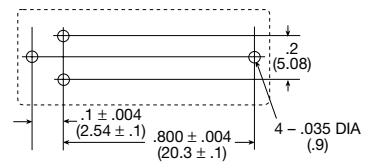


**2 Form A**



**PC Board Layout (Bottom View)**

**1 Form A**



**2 Form A**

