

OMI 2 Pole series

2 Pole Miniature Power PC Board Relay

Appliances, HVAC, Office Machines.

VDE VDE File No. 6678

S SEMKO File No. 9517235

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- Meet UL 508, VDE0435 and SEMKO requirements.
- · 2 Form A and 2 Form C contact arrangements.
- Immersion cleanable, sealed version available.
- Meet 5,000V dielectric voltage between coil and contacts.
- Meet 10,000V surge voltage between coil and contacts (1.2 / 50μs).

Contact Data @ 20°C

Arrangements: 2 Form A (DPST-NO) and 2 Form C (DPDT).

Material: Ag Alloy

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

30 ops./min. (rated load).

Expected Mechanical Life: 10 million operations (no load). **Expected Electrical Life:** 100,000 operations (rated load).

Minimum Load: 100mA @ 5VDC.

Initial Contact Resistance: 100 milliohms @ 1A, 6VDC.

Contact Ratings

Ratings: 5A @ 240VAC resistive, 5A @ 120VAC resistive, 5A @ 30VDC resistive,

1/8 HP @ 250VAC.

1.5A @ 240VAC inductive (cosø= 0.4), 1.5A @ 120VAC inductive (cosø= 0.4),

1.5A @ 24VDC inductive (L/R=7msec).

Max. Switched Voltage: AC: 240V. DC: 30V.

Max. Switched Current: 5A.

Max. Switched Power: OMI: 1,200VA, 150W.

Initial Dielectric Strength

Between Open Contacts: 1,000VAC 50/60 Hz. (1 minute). Between Coil and Contacts: 5,000VAC 50/60 Hz. (1 minute). Surge Voltage Between Coil and Contacts: 10,000V (1.2 / 50μs).

Initial Insulation Resistance

Between Mutually Insulated Elements: 1,000M ohms min. @ 500VDCM.

Coil Data

Voltage: 5 to 48VDC.

Nominal Power: 720mW (OMI-D), 540mW (OMI-L). **Coil Temperature Rise:** 45°C max., at rated coil voltage.

Max. Coil Power: 130% of nominal.

Duty Cycle: Continuous.

Coil Data @ 20°C

OMI-L Sensitive						
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)		
5	106.4	47	4.00	0.50		
6	88.0	68	4.80	0.60		
9	58.0	155	7.20	0.90		
12	44.4	270	9.60	1.20		
24	21.8	1,100	19.20	2.40		
48	10.9	4,400	38.40	4.80		

OMI-D Standard

Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
5	138.9	36	3.75	0.50
6	120.0	50	4.50	0.60
9	78.3	115	6.75	0.90
12	60.0	200	9.00	1.20
24	29.3	820	18.00	2.40
48	14.5	3,300	36.00	4.80

Operate Data

Must Operate Voltage:

OMI-D: 75% of nominal voltage or less. OMI-L: 80 % of nominal voltage or less.

Must Release Voltage: 5% of nominal voltage or more.

Operate Time: OMI-D: 15 ms max. OMI-L: 20 ms max.

Release Time: 8 ms max.

Environmental Data

Temperature Range: Operating: OMI-D:

-30°C to +55°C

OMI-L:

-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):
OMI-SS: Vented (Flux-tight) plastic cover.

OMI-SH: Sealed plastic case. **Weight:** 0.46 oz (13g) approximately.

Ordering Information -2 OMI -SS 12 M ,594 Typical Part Number ▶ 1. Basic Series: OMI = 2 Pole Miniature Power PC Board Relay. 2. Enclosure: SS = Vent (Flux-tight)* plastic cover. SH = Sealed, plastic case. 3. Termination: 2 = 2 pole 4. Coil Voltage: 05 = 5VDC09 = 9VDC24 = 24VDC06 = 6VDC12 = 12VDC48 = 48VDC5. Coil Input: D = Standard (720mW) L = Sensitive (540mW) 6. Contact Arrangement: Blank = 2 Form C, DPDT M = 2 Form A, DPST-NO 7. Suffix:

,594 = Standard model for "SH" enclosure

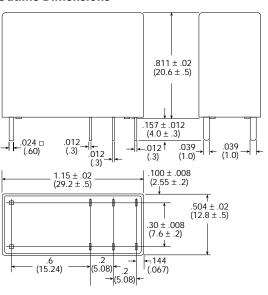
,500 = Standard model for "SS" enclosure

Our authorized distributors are more likely to stock the following items for immediate delivery.

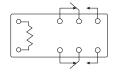
OMI-SH-205D,594 OMI-SH-205L,594 OMI-SH-212D,594 OMI-SH-212L.594 OMI-SH-224L,594 OMI-SH-224D,594

* Not suitable for immersion cleaning processes.

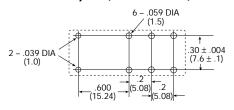
Outline Dimensions



Wiring Diagram (Bottom View)

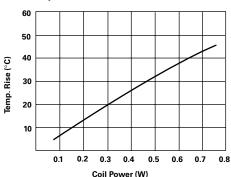


PC Board Layout (Bottom View)

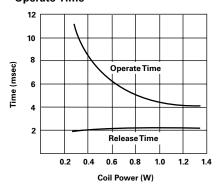


Reference Data

Coil Temperature Rise



Operate Time



Life Expectancy

Other Suffix = Custom model

