

OMIF series

20A Miniature Power PC Board Relay

Appliances, HVAC, Office Machines.

UL File No. E82292

CSA File No. LR48471

VDE File No. 6031

TUV File No. R85447

Features

- Meet UL 508, CSA, VDE0435 and TUV requirements.
- 1 Form A contact arrangements.
- Quick Connect Terminal type.
- 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: 1 Form A.

Material: AgSnO

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: 20A @ 125VAC resistive.
16A @ 250VAC resistive,
16A @ 24VDC resistive.

Max. Switched Voltage: AC: 250V.
DC: 24V.

Max. Switched Current: 20A.

Max. Switched Power: 4,000VA, 385W.

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: 12 to 24VDC.

Nominal Power: 540mW.

Coil Temperature Rise: 35°C max., at rated coil voltage.

Max. Coil Power: 130% of nominal.

Duty Cycle: Continuous.

Coil Data @ 20°C

OMIF				
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
12	44.4	270	9.00	0.60
18	30.0	600	13.50	0.90
24	21.8	1,100	18.00	1.20

Operate Data

Must Operate Voltage: 75% of nominal voltage or less.

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

Operate Time: 20 ms max.

Release Time: 10 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 with quick connect terminals.

Enclosure (94V-0 Flammability Ratings):

OMIF-S: Vented (Flux-tight) plastic cover.

Weight: 0.53 oz (15g) approximately.

Ordering Information

Typical Part Number ▶

OMIF

-S

-1

24

L

M

1. Basic Series:

OMIF = 20A PC Board Terminals

2. Enclosure:

S = Vented (Flux-tight)* plastic cover

3. Termination:

1 = 1 pole

4. Coil Voltage:

12 = 12VDC 18 = 18VDC 24 = 24VDC

5. Coil Input:

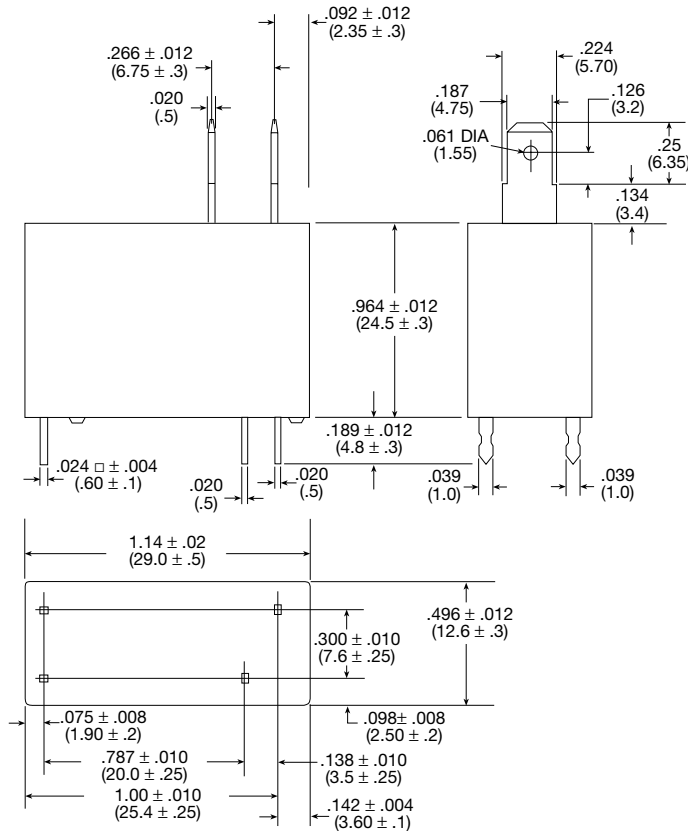
L = Sensitive (540mW)

6. Contact Arrangement:

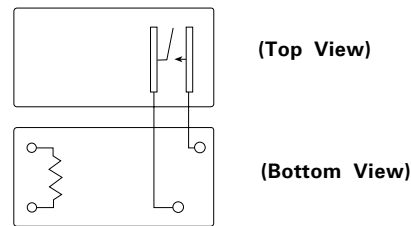
M = 1 Form A, SPST-NO

* Not suitable for immersion cleaning processes.

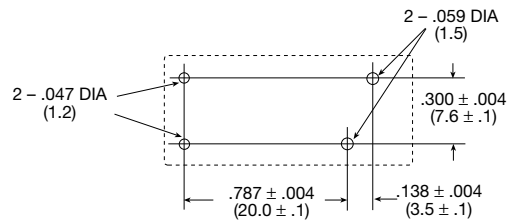
Outline Dimensions



Wiring Diagram

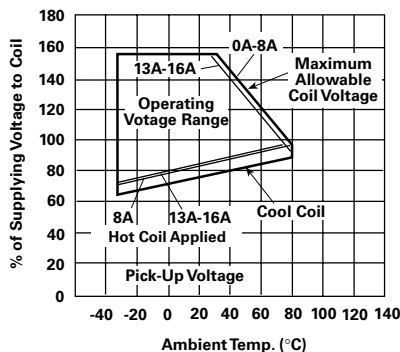


PC Board Layout (Bottom View)

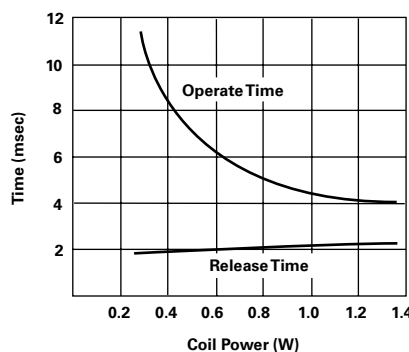


Reference Data

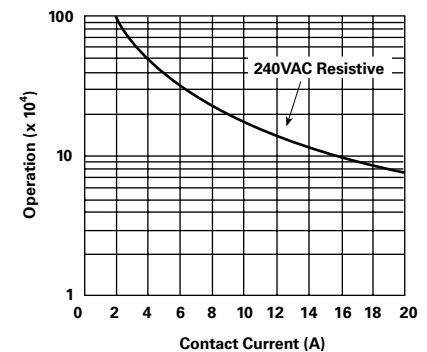
Operating Voltage



Operate Time



Life Expectancy



Note: This data is based on the max. allowable temperature for E type insulation coil (115°C).