



ORWH series

10 Amp Miniature Power PC Board Relay

callus File No. E82292



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.

Coil Data @ 20°C

| ORWH | | | | | | | |
|--------------------------------|----------------------------|------------------------------------|----------------------------------|----------------------------------|--|--|--|
| Rated Coil Voltage (VDC) | Nominal Current (mA) | Coil Resistance (ohms) ± 10% | Must Operate Voltage (VDC) | Must Release Voltage (VDC) | | | |
| 3 | 120.0 | 25 | 2.1 | 0.3 | | | |
| 5 | 71.4 | 70 | 3.5 | 0.5 | | | |
| 6 | 60.0 | 100 | 4.2 | 0.6 | | | |
| 9 | 44.4 | 225 | 6.3 | 0.9 | | | |
| 12 | 40.0 | 400 | 8.4 | 1.2 | | | |
| 24 | 15.0 | 1,600 | 16.8 | 2.4 | | | |
| 48 | 7.5 | 6,400 | 33.6 | 4.8 | | | |

Features

- Compact relay with 1 Form A and 1 Form C contact arrangements.
- 10 Amp switching capacity.
- · Flux-tight or sealed version available.
- Applications include appliance, HVAC, security system, garage opener control, emergency lighting.

Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO) and 1 Form C (SPDT).

Material: AgCdO.

Max. Switching Rate: 300 ops./min. (no load). 20 ops./min. (rated load).

Expected Mechanical Life: 10 million operations (no load).

Expected Electrical Life: 100,000 operations at 10A @ 250VAC res. (NO).

Minimum Load: 100mA @ 5VDC

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

Contact Ratings

Ratings: 10A/6A @ 250VAC resistive (NO/NC),

10A/6A @ 28VDC resistive (NO/NC), 15A @ 120VAC resistive (NO), 15A @ 28VDC resistive (NO), 10A @ 277VAC resistive (NO).

Max. Switched Voltage: AC: 277V. DC: 30V.

DC: 30

Max. Switched Current: 15A.

Max. Switched Power: 2,770VA, 360W.

Initial Dielectric Strength

Between Open Contacts: 750VAC 50/60 Hz. (1 minute). Between Coil and Contacts: 1,500VAC 50/60 Hz. (1 minute). Surge Voltage Between Coil and Contacts: 3,000V (1.2 / 50μs).

Initial Insulation Resistance

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

Coil Data @ 20°C

Voltage: 3 to 48VDC. Nominal Power: 360 mW Max. Coil Power: 130% of nominal.

Duty Cycle: Continuous.

Operate Data

Must Operate Voltage: 70% of nominal voltage or less. **Must Release Voltage:** 10% of nominal voltage or more.

Operate Time: 10 ms max. Release Time: 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):
ORWH-SS: Vented (flux-tight) cover.

ORWH-SH: Sealed plastic case. Note: Vent nib should be removed

after soldering and cleaning.

Weight: 0.33 oz (9.5g) approximately

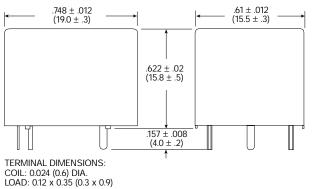
| Ordering Information | | | | | | | | |
|---|--------------------------|-----------------|-----|----|----|---|---|-------|
| Тур | oical Part Number | ORWH | -SS | -1 | 12 | D | M | ,N000 |
| Basic Series: ORWH = Miniature Power PC board | relay. | - | | | | | | |
| 2. Enclosure: SS = Vented (flux-tight)* plastic case | e. SH = Seale | ed plastic case | | | | | | |
| 3. Number of Poles: 1 = 1 pole | | | | | | | | |
| 4. Coil Voltage: 03 = 3VDC 06 = 6VDC 05 = 5VDC 09 = 9VDC | 12 = 12VDC 24 = 24VDC | 48 = 48VDC | | | | | | |
| 5. Coil Input: D = Standard | | | | | | | | |
| 6. Contact Arrangement: Blank = 1 Form C, SPDT | M = 1 Form A, SPST- | -NO | | | | | | |
| 7. Option: ,N000= Standard model. | Other Suffix = Custor | m model. | | | | | | |

^{*} Not suitable for immersion cleaning

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

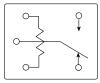
| ORWH-SH-112DM,N000 | ORWH-SH-109D,N000 | ORWH-SS-112DM,N000 | ORWH-SS-106D,N000 | ORWH-SS-148D,N000 |
|--------------------|-------------------|--------------------|-------------------|-------------------|
| ORWH-SH-124DM,N000 | ORWH-SH-112D,N000 | ORWH-SS-124DM,N000 | ORWH-SS-109D,N000 | |
| ORWH-SH-105D,N000 | ORWH-SH-124D,N000 | ORWH-SS-148DM,N000 | ORWH-SS-112D,N000 | |
| ORWH-SH-106D,N000 | ORWH-SH-148D,N000 | ORWH-SS-105D,N000 | ORWH-SS-124D,N000 | |
| ORWH-SH-106D,N000 | ORWH-SH-148D,N000 | ORWH-SS-105D,N000 | ORWH-55-124D,N000 | |

Outline Dimensions

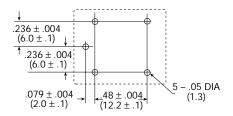


Note: Only necessary terminals are present on 1 Form A models.

Wiring Diagram (Bottom View)



PC Board Layout (Bottom View)



Socket

27E1064 socket is rated 10A @ 300VAC. UL Recognized for US and Canada. Designed to fit same suggested board layout as relay.

