

## Features

- 1 changeover design
- 4000 V coil to contact dielectric
- AgNi gold flashed contacts

## Contact data

Design	1 c/o
Rated current	7 Amps
Rated voltage	250 Vac
Rated breaking capacity	1750 VA
Material	AgNi + Au flash

Contact Life :  
 250V 7A resistive

100,000 ops

## Insulation

Dielectric – open contacts	750Vac rms
- coil to contacts	4000Vac rms
Isolation resistance	100 M Ohms

## Other data

Temperature range	-30 to + 70°C
Operate / Release time	max. 10 / 5 msec
Weight	14g approx.

## Coil data @ 20°C

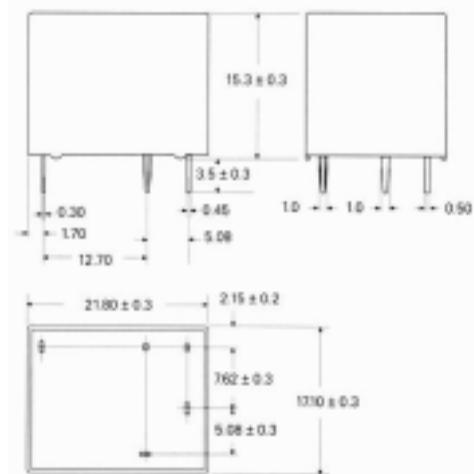
Nominal voltage	24 Vdc	12Vdc
Non-Operate voltage	10.8 Vdc	5.4Vdc
Pull-in voltage	15.6 Vdc	7.8 Vdc
Release voltage	2.4 V dc	1.2 Vdc
Max coil voltage	48 V dc	24 Vdc
Coil resistance (Ohms)	1780 ± 10%	440 ± 10%
Coil current	13.5 mA	27.3mA

# OUDH-SS-112L4F OUDH-SS-124L4F

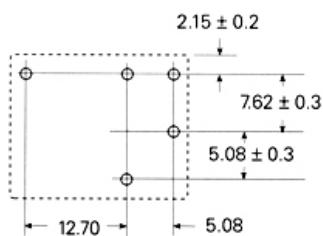
## Data sheet

**1 pole C/O 7A relay  
 Approval – cUL**

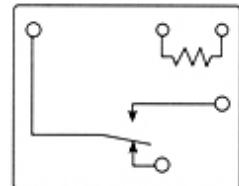
## Dimensions

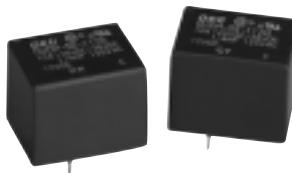


## Pinning



## Layout





## OUDH series

### 10 Amp Miniature, Sealed PC Board Relay

Appliances, HVAC, Office Machines.

UL File No. E58304

CSA File No. LR48471

#### Features

- Low profile miniature power relay
- High density available on PC board due to small size.
- 450mW coil available.
- Meets 2kV dielectric between coil and contacts.
- Meets 5kV surge voltage.
- Immersion cleanable, sealed version available.

#### Contact Data @ 20°C

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

**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:** 10A @ 120VAC resistive,  
10A @ 28VDC resistive,  
1/4 HP @ 120VAC.

3A @ 120VAC inductive ( $\cos\phi = 0.4$ ),  
3A @ 28VDC inductive ( $L/R = 7\text{msec}$ ).

**Max. Switched Voltage: AC:** 240V.  
**DC:** 110V.

**Max. Switched Current:** 10A.

**Max. Switched Power:** 1,200VA, 300W.

#### Initial Dielectric Strength

**Between Open Contacts:** 750VAC 50/60 Hz. (1 minute).

**Between Coil and Contacts:** 2,000VAC 50/60 Hz. (1 minute).

**Surge Voltage Between Coil and Contacts:** 5,000V (1.2/50μs).

#### Initial Insulation Resistance

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

#### Coil Data

**Voltage:** 3 to 48VDC.

**Nominal Power:** 450mW except 48VDC coil (660mW)

**Coil Temperature Rise:** 60°C max., at rated coil voltage.

**Max. Coil Power:** 130% of nominal.

**Duty Cycle:** Continuous.

#### Coil Data @ 20°C

OUDH				
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
3	150.0	20	2.25	0.30
6	75.0	80	4.50	0.60
9	50.0	180	6.75	0.90
12	37.5	320	9.00	1.20
24	20.9	1,280	18.00	2.40
48	13.7	3,500	36.00	4.80

#### Operate Data

**Must Operate Voltage:** 75% 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 +60°C

(no water condensation and no water drop.)

**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.

#### Mechanical Data

**Termination:** Printed circuit terminals.

**Enclosure (94V-0 Flammability Ratings):**

**OUDH-SS:** Vented (Flux-tight), plastic cover.

**OUDH-SH:** Sealed, plastic case.

**Weight:** 10g approximately.

## Ordering Information

Typical Part Number ►

OUDH

-SH

-1

12

D

M

## 1. Basic Series:

OUDH = Miniature, sealed PC board relay.

## 2. Enclosure:

SS = Vented (Flux-tight)\* plastic cover.

SH = Sealed, plastic case.

## 3. Termination:

1 = 1 pole

## 4. Coil Voltage:

03 = 3VDC	09 = 9VDC	24 = 24VDC
06 = 6VDC	12 = 12VDC	48 = 48VDC

## 5. Coil Input:

D = Standard

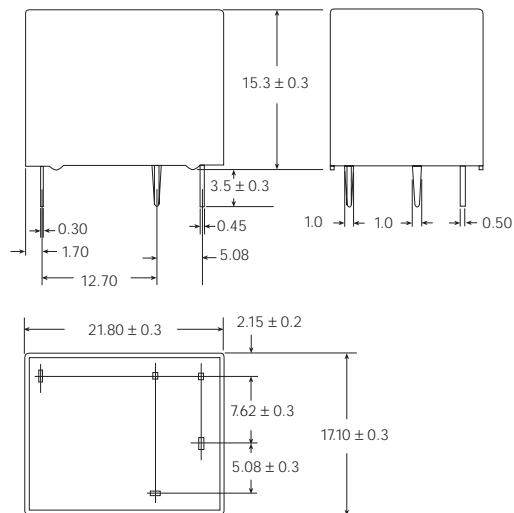
## 6. Contact Arrangement:

Blank = 1 Form C, SPDT

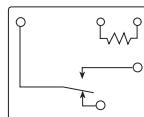
M = 1 Form A, SPST-NO

\* Not suitable for immersion cleaning processes.

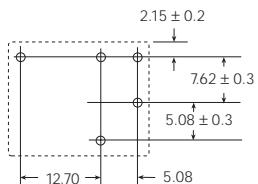
## Outline Dimensions



## Wiring Diagram (Bottom View)

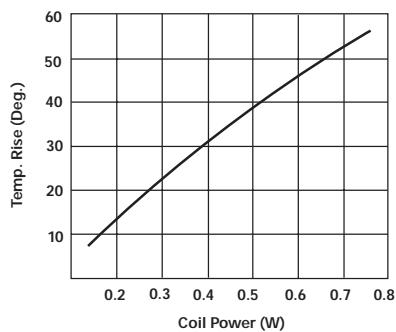


## PC Board Layout (Bottom View)

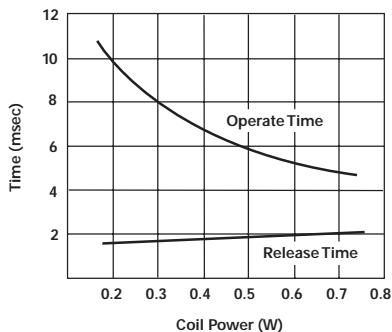


## Reference Data

## Coil Temperature Rise



## Operate Time



## Life Expectancy

