

# 48-T101

## Delayed On/Interval (One Shot) Timer

# 48 X 48 TIMERS

MULTI-FUNCTION TIMERS



### Application Examples

- Delayed energisation of loads on power up.
- Sequential switching of loads.
- Energisation of loads for a set period of time.

### Features

- Power supply ordering options: 100 to 240V AC, 24VAC/DC or 12V DC.
- Microprocessor technology based.
- Power ON and Relay ON LED's.
- Front dial can be used as a screwdriver for adjusting the operational settings.
- Extra short housing.
- Time settings from 0.1 second up to 100 hours, in 8 overlapping time ranges.
- Automatic (i.e. power up) pulse or hold start.
- DPDT relay supplied as standard (5A per contact).
- Flashing Power ON LED when unit is timing (flash rate increases when relay is about to switch).

### ORDERING CODE

TYPE	MODEL	PINS	VOLTAGE	POWER SUPPLY
48	T101	11	230	A

SEE PAGE 66 FOR ORDERING OPTIONS

### Description of Operation

The **48-T101** is a microprocessor based delayed on/interval (one shot) timer, incorporating 6 overlapping time ranges within 0.1 second and 100 hours. The unit is automatically triggered at power up.

Before operation, the timer can be programmed to operate in any of the following modes:

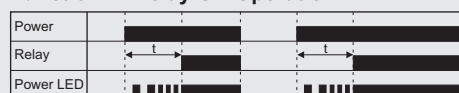
**A: Delayed ON Operation:** At power up, the relay is de-energised and timing commences. After the set time expires, the relay energises and remains energised until power is removed.

**B: Interval (One Shot) Operation:** At power up, the relay energises and timing commences. After the set time expires, the relay de-energises.

**Note:** Function Test Mode is achieved by adjusting the dial fully anti-clockwise. This will result in the unit performing the set function with a time base (t) = 5 sec.

### Operational Diagrams

Function A: Delay ON Operation



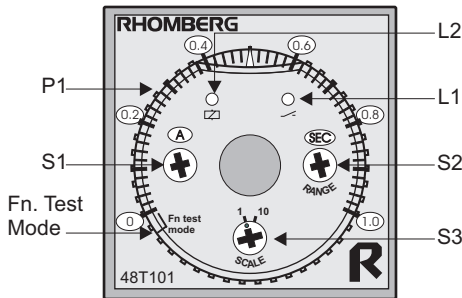
Function B: Interval (One Shot) Operation



t = Preset time



## Description of Controls



L1: The red “RELAY ON” LED illuminates  when the relay is energised.

L2: The green “POWER ON” LED illuminates  when power is supplied to the unit. This LED flashes when the unit is timing. The flash rates increase just before the relay switches.

S1: The **Time Function** is set on S1.  
Position A: Delayed ON Operation  
Position B: Interval (One Shot) Operation

S2: The **Time Range** is set on S2. The 4 available time settings are SECONDS, MINUTES, HOURS and 10 HOURS.

S3: Two dial **scales** are selectable on S3.  
Position 1 adjusts the scale to have a range from 0 to 1.  
Position 10 adjusts the scale to have a range from 0 to 10.

P1: The **Time Setting** is adjusted on P1.

Fn Test Mode: When the dial, P1 is adjusted fully anticlockwise, the unit will perform the set function with a time base (t) = 5 sec.

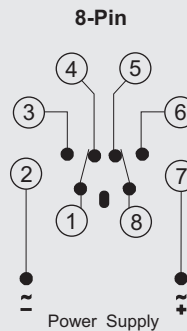
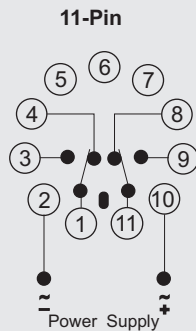
See Section J: General Information, page 94 for Dimensional Diagram.

## Wiring and Connection

Relay Contacts-DPDT		11-Pin	8-Pin
CONTACT1	Normally Open	1 + 3	1 + 3
	Normally Closed	1 + 4	1 + 4
CONTACT2	Normally Open	11 + 9	8 + 6
	Normally Closed	11 + 8	8 + 5

Power Supply	11-Pin	8-Pin
Phase/Positive	10	7
Neutral/Negative	2	2



Note: The positions of the relay contacts are shown in the de-energised state.

## Technical Specifications

POWER SUPPLY			
Supply Voltage	100 to 230VAC	24 VAC/DC	12VDC
Power Consumption	3 VA	2 VA (AC) 1W (DC)	1.5W
Supply Tolerance	±10%		
Power Reset	100 msec minimum		

GENERAL SPECIFICATIONS	
Relay Contacts	2 x 5A @ 250VAC
Standards	CE Rated
Enclosure Protection Rating	IP40
Weight	100gm (approximately)

Note: Function Test Mode is achieved by adjusting the dial fully anticlockwise. This will result in the unit performing the set function with a time base (t) = 5 sec.

TIME SPECIFICATION	
Setting Accuracy	Maximum of ±5% full scale ±50msec
Repeatability	Maximum of ±0.3% of full scale ±10msec (in 1 sec time range)
Temperature Influence	Maximum of ±2% of full scale
Influence of Supply Voltage Variance	Maximum of ±0.5% of full scale ±10msec (in 1 sec time range)
Power Reset Time	100msec minimum

TIME SETTING	SCALE SETTING	
	1	10
Sec	0.1 sec to 1 sec	1 to 10 sec
Min	0.1 min to 1 min	1 to 10 min
Hrs	0.1 hr to 1 hr	1 to 10 hrs
10 Hrs	1 hr to 10 hrs	10 to 100 hrs

Additional information in Section J, page 131.