# T1 TIMER (Delay On Make)
T1K-AVGTMR-xxx

Timer Features:

- Microcontroller based timing
- Remaining/Elapsed Time Display
- Optional Password protection for unit/range
- Set time range from 0.01 sec to 999 hours
- Digital setting with 1% resolution, 1% Absolute Accuracy, and 1% Repeat Accuracy

Timer Function:

When input power is applied, the programmed timer delay (SP) begins. At the end of the time delay, the Relay (R) energizes (contacts transfer) and remains energized as long as input power is supplied. The timer and the Relay are reset on loss of power.
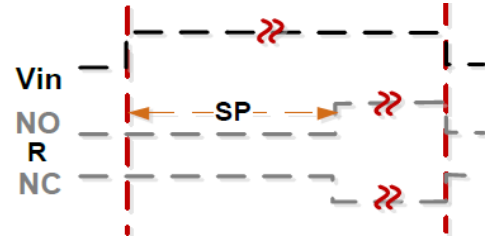
TECHNICAL DATA

TIME DELAY

Range: Depends on the Time Unit

S_EC	0.01 - 9.99 seconds
SEC	1-999 seconds
ñín	1-999 minutes
Hr	1-999 hours

Repeat Accuracy: +/-1% or 20 ms, whichever is greater
Reset Time: 5 ms max. (2 ms typical)

ENVIRONMENTAL

Storage Temperature: -50°C to 150°C
Operating Temperature: -20°C to 60°C

INPUT

Operating Voltage:
120, 240 VAC; 12, 24 VDC ±10% (Unfiltered input voltage to DC Models must be full-wave rectified)
Power Consumption: 3 VA max.
Frequency: 50/60 Hz

PROTECTION

Dielectric Breakdown: 2000 VAC, RMS min. at 60 Hz between input and outputs and 1000VAC between outputs
**Polarity:** DC units are reverse polarity protected

OUTPUT

Type: Relay contacts
Form: DPDT (Double Pole Double Throw), 2 form C
Rating: 7A max. Resistive at 250 VAC; 100 mA at 5 VDC min. load current
Life (Number of Operations):
 Mechanical: 1 x 10^7
 Electrical: 1 x 10^5

MECHANICAL DATA – WIRING AND DIMENSIONS

Termination: 8-pin plug
Mounting type: Socket Mount
Dimensions: 1.790 x 2.887 x 2.412 in.
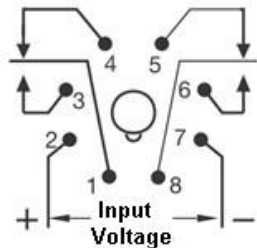
Unit: inch [mm]

8-PIN CONFIGURATION
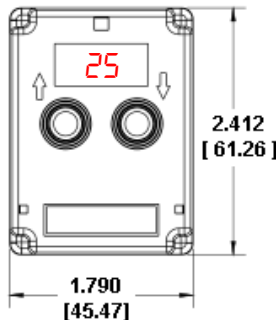
FRONT VIEW
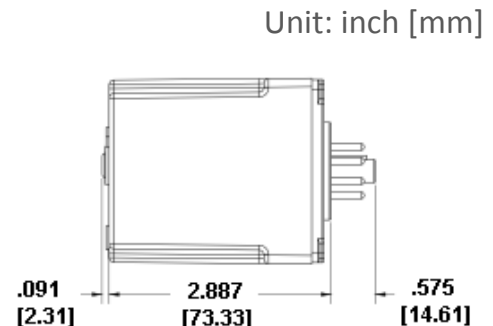
SIDE VIEW

HOW TO ORDER

Timers

12 VDC Input:	**T1K-AVGTMR-466**
24 VDC Input:	**T1K-AVGTMR-462**
120 VAC Input:	**T1K-AVGTMR-461**
240 VAC Input:	**T1K-AVGTMR-465**

Socket: *All models require an 8-pin socket listed below:*
 8 Pin Socket: **AVG-TMRSKT-8PIN**

Operation and Programming

Timer has two buttons and a 3 digit display for programming. The following button actions are used in programming:

- Pressing Left (**L**) or ↑ button increments a value or moves from one parameter to another.
- Pressing Right (**R**) or ↓ button decrements a value or selects a parameter to edit.
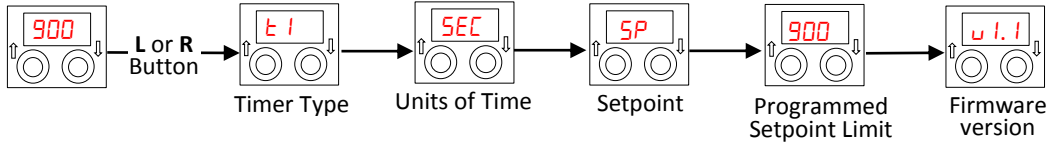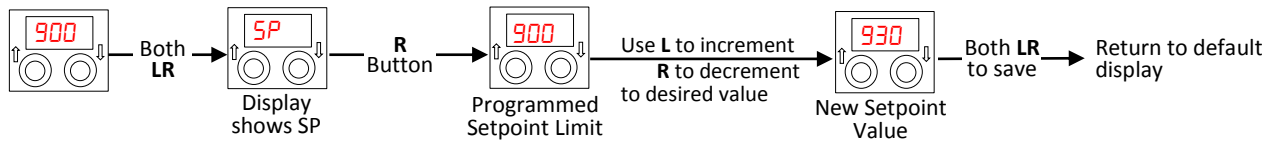- Pressing Both Left and Right (**LR**) button saves the displayed value and/or advances timer to next parameter.
- Pressing Left (**L**) or Right (**R**) from the default display will prompt timer to scroll through programmed values.

View Programmed Values:

L or **R** Button → Timer Type	Units of Time	Setpoint	Programmed Setpoint Limit	Firmware version

Adjust Setpoint:

Both **LR** → Display shows SP → **R** Button → Programmed Setpoint Limit → Use **L** to increment **R** to decrement to desired value → New Setpoint Value → Both **LR** to save → Return to default display

Programming Mode:

Note:
If the Timer remains in an idle state for more than 6 seconds, it automatically returns to the default display.

1. (Default display)

Both **LR**

2. SP → **R** Button → Programmed Setpoint Limit → Use **L** to increment **R** to decrement to desired value → New Setpoint Value → Both **LR** to save → Return to default display

Both **LR**

3. PAS → Screen to input password → Use **L** to increment **R** to decrement to correct Password → Password Value → Both **LR** to save → Go to Step 4 (Incorrect Password *bAd* will return unit to default display)

If Password is NOT set, timer will proceed to Step 4.

4. Unt → **R** button → Current Unit → Use **R** Button to scroll

   Unit of Time Options:
   - S_EC   Second (10ms) Resolution
   - SEC   Seconds
   - min   Minute
   - Hr   Hour

   Press **LR** to select displayed (Go to Step 5)

   L Button

5. PAS → **R** button → Screen to input password → Use **L** to increment **R** to decrement to change Password → New Password (Saving *000* will remove password) → Both **LR** to save → Y n → **L** to confirm Password   **R** to discard Password