

# Temperature Sensor (TSO-9EL)

TSO-9EL is wireless temperature sensor with attached temperature probe. It automatically transmits temperature condition to the Control Panel every half hour (30 minutes).

## ● **Identifying the parts**

Remove the cover by loosening the bottom fixing screw, the inside of the Temperature Sensor will be revealed as shown.

### 1. External Temperature Probe Terminal

Connect the External Temperature Probe to this Terminal

### 2. Test Button

Press the button to transmit a test signal.

### 3. Internal LED

Flashes – when the Test or Learn Button is pressed.

Continuous Flashes every 4 seconds – Battery exhaustion

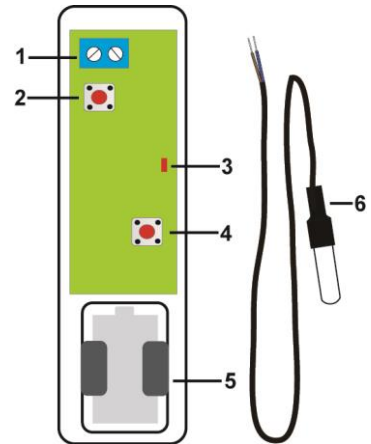
### 4. Learn Button

Press the button to transmit a learn/test signal for learning the Temperature Sensor.

### 5. Battery Compartment

### 6. External Temperature Probe

Connect the Probe to External Temperature Probe Terminal



## ● **Battery**

The Temperature Sensor uses one **CR123 - 3V Lithium battery**. Please always replace battery with the correct size and voltage.

When the Temperature Sensor is low battery, a low battery signal will be sent to the Control Panel along with regular signal transmissions for the Control Panel to display the status accordingly.

When the battery is depleted, the LED flashes every 4 seconds and the Temperature Sensor will stop all function.

### ● **Battery Change**

- I. Remove the Cover by loosening the bottom fixing screw.
- II. Remove the Old Battery.
- III. Press the Tamper Switch or the Learn/Status Button a few times.
- IV. Fit a new battery into the battery compartment. Please orient the battery according to the correct polarity.
- V. Replace the Cover.

## ● **Getting Started**

**Step 1** Remove the fixing screw and cover assembly

**Step 2** Connect the External Temperature Probe to the terminal

**Step 3** Insert the battery into the battery holder taking care to connect the polarity correctly.

**Step 4** Put the Control Panel into learning mode. Please refer to your Control Panel user manual.

**Step 5** Press Learn Button to send learn code to Control Panel.

**Step 6** Refer to the user manual of the Control Panel to complete the learn-in process.

## ● **Walk Test (Range Test)**

- Step 1** Refer to Control Panel manual to enter Walk Test mode
- Step 2** Press the Learn Button or Test button to transmit a test code for range test
- Step 3** If the signal is received by Control panel, it will display the information accordingly.  
Refer to you Control Panel to complete Walk Test procedure

## ● **Mounting Methods**

There are two ways to mount the Temperature Sensor, by either Self-adhesive installation or Screw mounting.

### ● **Self adhesive mounting**

- I. Clean the surface with a suitable degreaser.
- II. Remove the protective covering from one side of the double-sided adhesive pad and firmly apply to the back of the device.
- III. Next remove the other cover and firmly press the item onto the desired location.

### <NOTE>

- ☞ Do not use the adhesive pad method of installation on a surface with peeling or cracked paint, or on a rough surface.

### ● **Screw mounting**

The Base has two knockouts, where the plastic is thinner, for mounting purpose.

To mount the Temperature Sensor

- I. Remove the cover
- II. Break through the knockouts on the base
- III. Using the holes as a template, drill holes in the surface
- IV. Insert the wall plugs if fixing into plaster or brick
- V. Screw the base into the wall plugs
- VI. Screw the cover back on to its base

## ● **Operation**

- The temperature detection range of the Temperature Sensor is about  $-30^{\circ}\text{C} \sim 100^{\circ}\text{C}$  ( $-22^{\circ}\text{F} \sim 212^{\circ}\text{F}$ )  $\pm 2^{\circ}\text{C}$ .
- The Temperature Sensor will transmit a temperature signal periodically at intervals of 30 minutes which also serves as supervision signal. If the Control Panel fails to receive the signal transmitted from a certain temperature sensor for a programmed period, it will determine the temperature sensor is out of order and report the condition.
- You can also press the Learn or Test Button to manually transmit temperature signal.