## Overview:

The **PLS-T3** is a **Sounder and LED** unit that provides both an audible and visual warning in accordance with the AS2220 or ISO8201 Standards.

The **PLS-T3** light output is generated from a matrix of 6 RED LED emitters to give a maximum output of 30mcd. The Sounder provides a maximum sound level of 98dBA, which may be adjusted by a Volume control.

The **PLS-T3** is normally connected to the monitored Bell or Sounder circuit of a Fire Alarm Panel and is activated when the Sounder circuit voltage polarity is reversed to the 'Alarm' state.
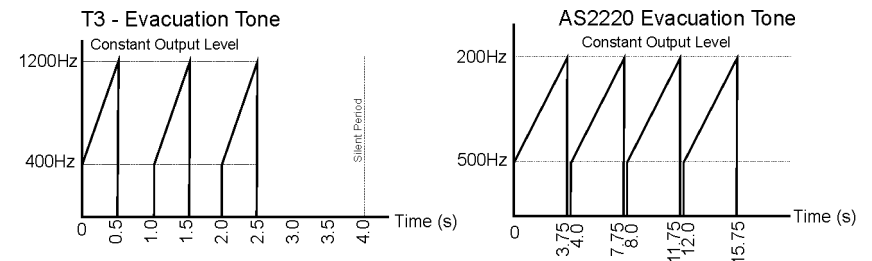
If required, the Sounder and LED can be wired separately for applications where the LED and Sounder work independently of each other.

The **PLS-T3** may be mounted in a standard single-gang electrical flush-box fitting.
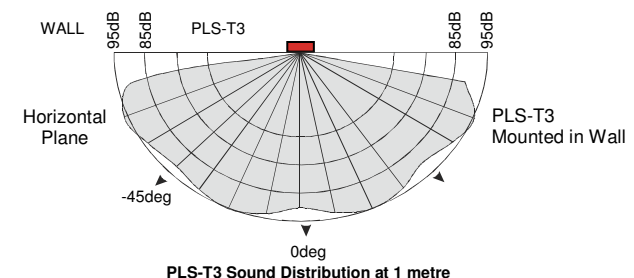
## Specification:

| | | |
|---|---|---|
| Dimensions: | 117 x 74 x 21     H x W x D mm  -  LED height above flush-box. - designed to fit into a standard electrical flush-box fitting. | |
| Colour Options: | Red or White. | |
| Light Level Output: | 30mcd Max, 120° Viewing Angle | |
| Sound Level Output: | Sound pressure level at 1m (peak ± 3dB) | |
| | Evacuation, Alert:   98dBA | (@24Vdc) |
| Power Requirements: | **BELL IN** terminal - supplied from the Bell circuit: | |
| | Operating Voltage    9.5Vdc to 30Vdc | |
| Quiescent current (Non-Alarm state) | 0.4µA | (@24Vdc) |
| Operating current (Alarm state – T3 tone) | 13mA average, 32mA peak | (@24Vdc) |
| (Alarm state – AS2220 tone) | 24mA average, 304mA peak | (@24Vdc) |
| Controls: | Third wire for 'AS2220 / T3 Evacuation' tone control. -0V on Alert terminal for the 'AS2220' tone | |

## Tone Characteristics:



T3 - Evacuation Tone



AS2220 Evacuation Tone

## Sound Pressure Distribution:



**PLS-T3 Sound Distribution at 1 metre**

## Operation:

### 1. Normal Mode

The **PLS-T3** usually connects to the Fire Panel 'Bell' circuit with the Lamp inputs disconnected. In this mode both Sounder and Lamp activate with Bell reversal.

The panel Bell circuit connects to the **PLS-T3** as shown below. Bell terminals '+' and '-' connect to the corresponding Sounder '+' and '-' terminals. If the Bell is not active, the panel monitors the Bell circuit by applying a negative voltage to the Bell '+' terminal.

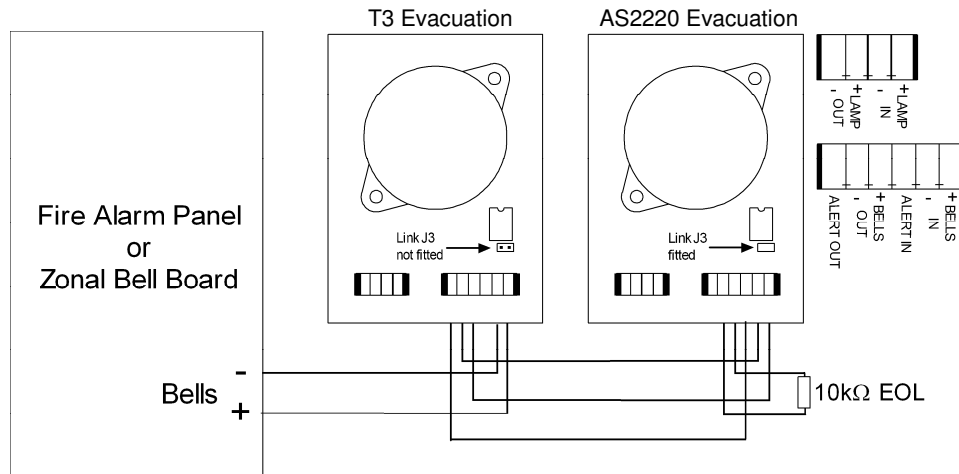The quiescent current drawn by the **PLS-T3** is less than 0.4µA.

When the panel Bell circuit activates, the Bell circuit voltage reverses applying positive voltage to the Bell '+' terminal, operating the **PLS-T3**.

If Jumper J3 and the Alert terminal are open, the ISO8201 Evacuation tone is generated and the LED flashes in sync with the T3 tone. If Link J3 is fitted or the Alert terminal is connected to 0V (negative), the AS2220 Evacuation tone is generated and the LED flashes at approximately 0.5Hz.

**PLS-T3  Normal Operation Mode**

| Bell Input | J3 or Alert Terminal | Sound Generated | Light Generated |
|---|---|---|---|
| Monitor Mode | Don't Care | None | None |
| Active | Open | T3 Evacuate | Flash, T3 |
| Active | 0V or link fitted | AS2220 Evacuate | Flash, 0.5Hz |

**Connection Diagram:**



### 2. Lamp Only Mode

The **PLS-T3** LED can be operated separately by connecting the panel Bells to the Lamp input. Bell terminals '+' and '-' connect to the corresponding Lamp '+' and '-' terminals.
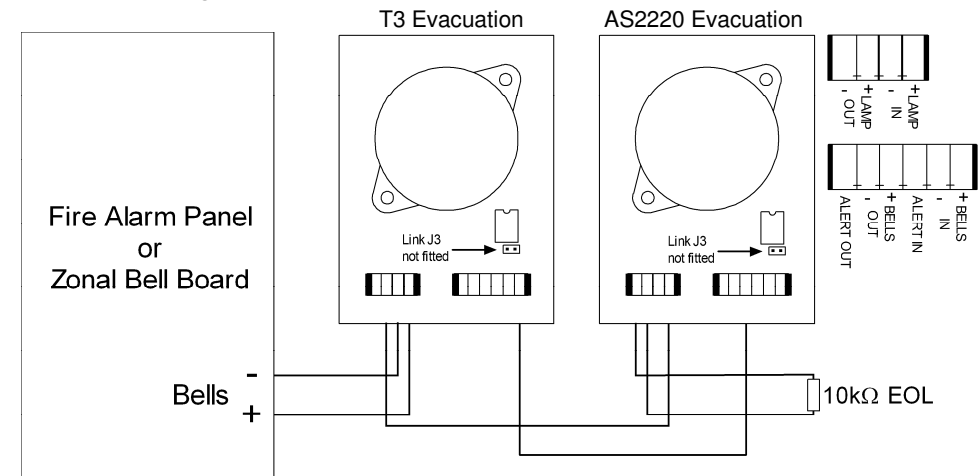
The panel Bell circuit connects to the **PLS-T3** as shown below. Bell terminals '+' and '-' connect to the corresponding Lamp '+' and '-' terminals. If the Bell is not active, the panel monitors the Bell circuit by applying a negative voltage to the Lamp '+' terminal.

The quiescent current drawn by the **PLS-T3** is less than 0.4µA.

When the panel Bell circuit activates, the Bell circuit voltage reverses applying positive voltage to the Lamp '+' terminal. If jumper J3 and the Alert terminal are open, the LED flashes at a rate equivalent to the T3 tone. If Link J3 is fitted or the Alert terminal is connected to 0V (negative), the LED flashes at approximately 0.5Hz.

**PLS-T3  Lamp Only Mode**

| Lamp Input | J3 or Alert Terminal | Light Generated |
|---|---|---|
| Monitor Mode | Don't Care | None |
| Active | Open | Flash, T3 |
| Active | 0V or link fitted | Flash, 0.5 Hz |

**Connection Diagram:**



## Product Codes:

| Part Code | Description |
|---|---|
| PLS-T3 | Sounder, Pert Lamp w/o cover – T3 tone |
| PLS-FCW | Sounder, Pert Lamp Cov., White |