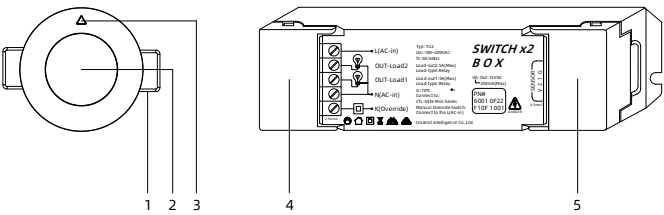


Mini-DTP-S2

The CTL-SEN-Mini/3111.F22 is an advanced Dual-Tech Presence Sensor designed for high-precision occupancy detection. The sensor utilizes a Pyroelectric Infrared (PIR) sensor to detect biological movement characteristics, while simultaneously using 24 GHz FMCW radar to detect active motion, micro-motion, and stationary presence. By performing dual-signal cross-verification, the device triggers only when both technologies consistently confirm human activity, thereby minimizing false alarms to the maximum extent.



Interface



1. Spring Clip
2. Radar Sensing Surface
3. Orientation Marker
4. Power Connection Port (AC 100 to 240 V)
5. Sensor Wiring Terminal (PH 2.0 mm 4-Pin)

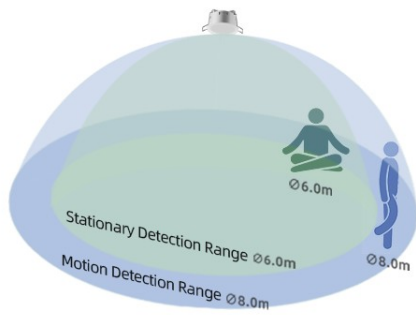
Features

- Dual-technology fusion of PIR (Passive Infrared) and 24GHz FMCW radar minimizes false triggers.
- Accurately identifies motion, micro-motion, and Presence.
- Sensitivity and detection distance can be adjusted independently.
- Integrated high-precision sensor for accurate indoor illuminance monitoring.
- Features 2 relay output
- Adjustable lighting threshold.
- Supports parameter configuration and status readout via IR remote control.
- Indicator LED brightness automatically adjusts to ambient light levels.
- Powered by a proprietary module with advanced signal processing algorithms.

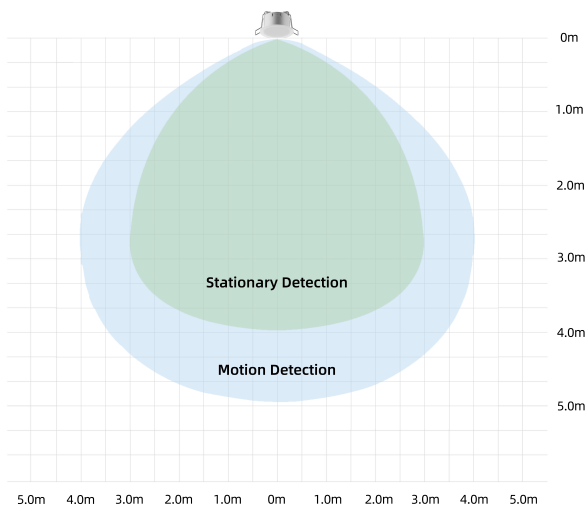
Specifications

|                        |                                                                                                                                                               |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output Type            | Mains Output                                                                                                                                                  |
| BOX Input Voltage      | AC 100 to 240 V                                                                                                                                               |
| BOX Output Voltage     | DC 12 V (0.25 A MAX)                                                                                                                                          |
| Sensor Input Voltage   | DC 12 V                                                                                                                                                       |
| Power Consumption      | 0.5 W (Max)                                                                                                                                                   |
| Relay Output           | Normally Open Mode<br>Normally Closed Mode                                                                                                                    |
| Relay Load             | AC 100 to 240 V, ≤ 5 A                                                                                                                                        |
| Indicator Light        | LED                                                                                                                                                           |
| Detection Mode         | PIR + 24GHz FMCW Radar                                                                                                                                        |
| Operating Frequency    | 24.00 to 24.25 GHz                                                                                                                                            |
| Transmit Power         | ≤ 10 dBm                                                                                                                                                      |
| Installation Method    | Recessed Ceiling Mount                                                                                                                                        |
| Mounting Height        | 2.0 to 4.0 m                                                                                                                                                  |
| Detection Angle        | 360°                                                                                                                                                          |
| Detection Coverage     | Installation at 3.0 m Height:<br>① Motion & Micro-motion:<br>Detection diameter at least 8.0 m<br>② Stationary Presence: Detection<br>diameter at least 6.0 m |
| Detection Range        | 1.5 to 8.0 m (sensor to target)                                                                                                                               |
| Sensitivity            | 0 to 100%                                                                                                                                                     |
| Illuminance Monitoring | 0 to 32,000 Lux (Accuracy ±4%)                                                                                                                                |
| Delay Time             | 1 to 3,600 seconds                                                                                                                                            |
| Product Size           | Φ43 mm × 25 mm                                                                                                                                                |
| Cutout Size            | Φ35 mm                                                                                                                                                        |
| Product Weight         | 16.5 g                                                                                                                                                        |
| BOX Size               | 121 mm × 35 mm × 26 mm                                                                                                                                        |
| BOX Weight             | 88 g                                                                                                                                                          |
| Cable Assembly         | UL2468 22AWG<br>Cable Length: 200 mm                                                                                                                          |
| Operating Environment  | Indoor -20 to 45°C<br>Humidity < 95% RH<br>(Non-condensing)                                                                                                   |
| Storage Temperature    | -40 to 85°C                                                                                                                                                   |
| Protection Level       | IP20                                                                                                                                                          |
| Housing Material       | PC                                                                                                                                                            |

## Detection Range

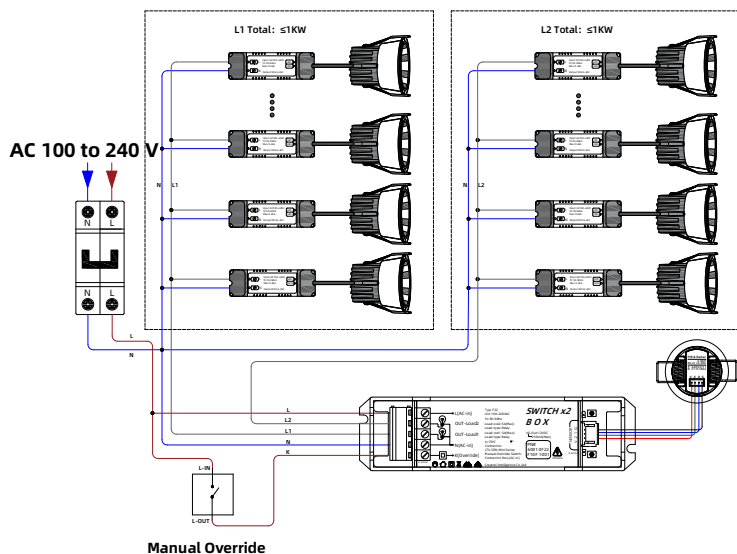


Front View



Side View

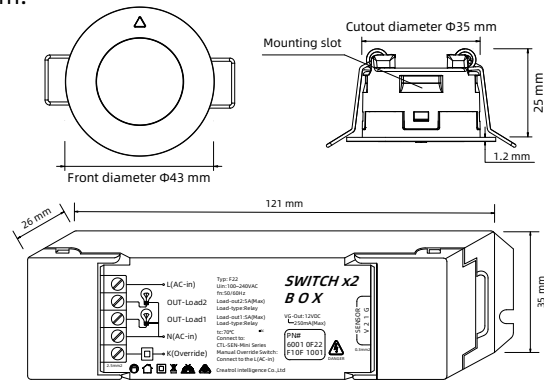
## Wiring Diagram



**Manual Override:** Connects to an external switch to force lights ON, bypassing sensor detection. Ideal for maintenance or constant illumination.

## Dimensions

Measuring 43 mm wide and 25 mm deep, this recessed unit fits a 35 mm cutout and requires a minimum ceiling depth of 13 cm.



## Installation Notes

**Interference Avoidance:** Keep away from moving objects (e.g., curtains, plants) and large metal/reflective surfaces.

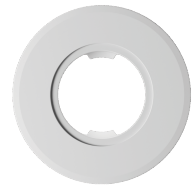
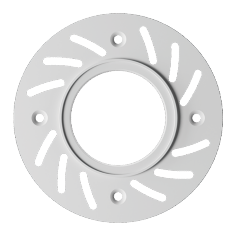
**Device Spacing:** Maintain at least 4m between sensors.

**Mounting:** Install on a stable, vibration-free surface. Ensure no moving objects are behind the wall (signals penetrate non-metals).

**Wiring Safety:** Turn off power before wiring. Use certified cables and proper circuit protection.

**Disclaimer:** Follow wiring diagrams strictly. Manufacturer is not liable for improper installation. Specifications subject to change.

## Available Accessories

Remote Controller  
(60.99.00C1)Cover Ring  
(60.99.0A55)In-wall Mounting 86 Panel Frame  
(60.99.0A86)Borderless Embedded Parts  
(60.99.0A40)

## Ordering Information

| P/N            | Short Name    | Model                  | Remarks         |
|----------------|---------------|------------------------|-----------------|
| 60.99.3111.F22 | Mini-DTP-S2   | CTL-SEN-Mini/3111.F22  | White (Default) |
| 60.9B.3111.F22 | Mini-DTP-S2/B | CTL-SEN-Mini/3111B.F22 | Black           |
| 60.99.00C1     | RC1           | RC1                    | Accessory       |
| 60.99.0A55     | Mini-ASSY-55  | A55                    | Accessory       |
| 60.99.0A86     | Mini-ASSY-86  | A86                    | Accessory       |
| 60.99.0A40     | Mini-ASSY-BL  | A40                    | Accessory       |