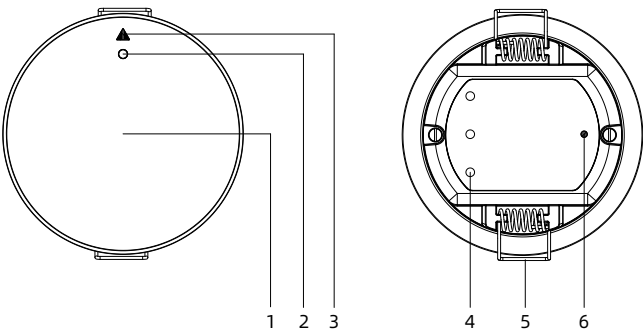


R5-24G-TYZ/S1

The CTL-SEN-R5/2517 is a high-precision human presence sensor powered by advanced 24GHz mmWave radar technology. Featuring proprietary signal processing algorithms, it detects micro-motion (such as breathing) to detect stationary presence while effectively filtering non-human interference. With a detection range of up to 10 meters and an integrated high-precision illuminance sensor (0 to 32,000 Lux), it is engineered for advanced smart building applications.



Interface



- 1. Radar Sensing Surface
- 2. Multifunction Window (LED / Illuminance Sensor / IR)
- 3. Orientation Marker
- 4. Power Input (AC 100 to 240 V)
- 5. Spring Clip
- 6. Pairing Button

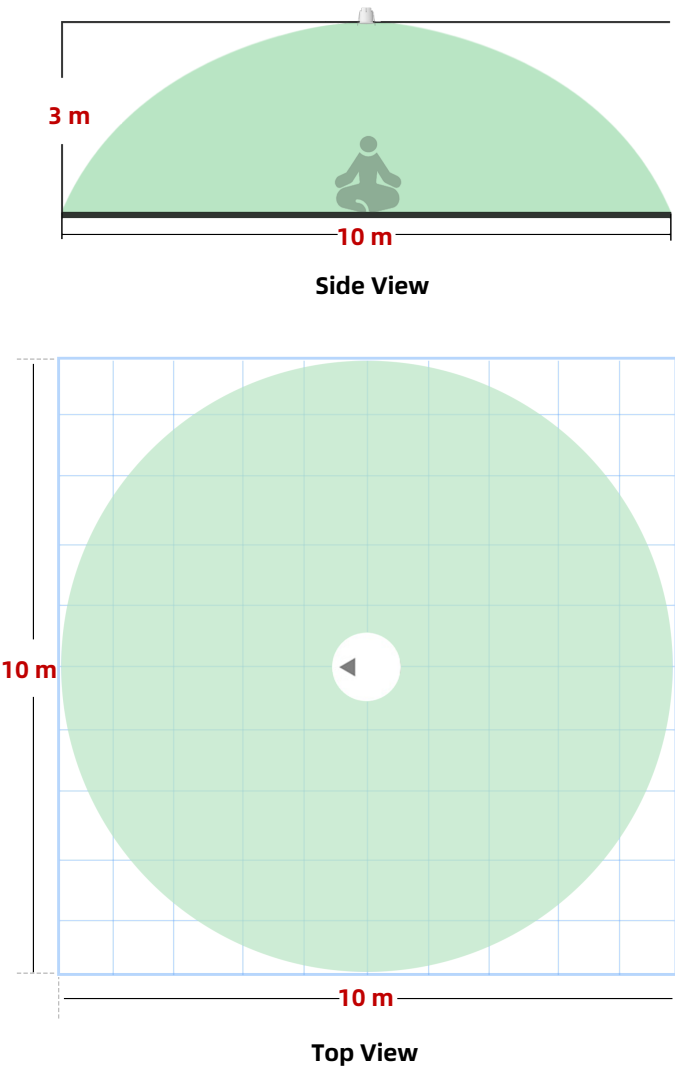
Features

- Supports motion, micro-motion, and stationary presence detection.
- Sensitivity and detection distance can be adjusted independently.
- Integrated high-precision sensor for accurate indoor illuminance monitoring.
- Features 1 relay output.
- 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

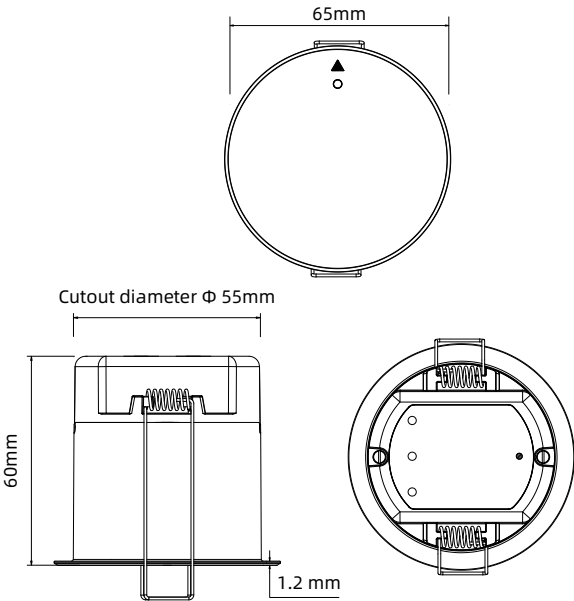
|                        |                                                        |
|------------------------|--------------------------------------------------------|
| Communication Type     | Tuya-ZigBee                                            |
| Input Voltage          | AC 100 to 240 V                                        |
| Power Consumption      | 0.5 W (Max)                                            |
| Relay Output           | Normally Open Mode, Normally Closed Mode               |
| Relay Load             | AC 100 to 240 V, ≤ 2 A                                 |
| Indicator Light        | LED                                                    |
| Detection Mode         | 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     | Max. Floor Coverage Diameter ≥ 10 m (at 3.0 m height)  |
| 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           | Φ65 mm × 60 mm                                         |
| Cutout Size            | Φ55 mm                                                 |
| Product Weight         | 87.5 g                                                 |
| Cable Specification    | UL1015 18AWG                                           |
| Operating Environment  | Indoor -20 to 45°C, Humidity < 95% RH (Non-condensing) |
| Storage Temperature    | -40 to 85°C                                            |
| Protection Level       | IP20                                                   |
| Housing Material       | PC                                                     |

Detection Range



Dimensions

Recessed mount, product outer diameter 65 mm, product depth 60 mm, cutout diameter 55 mm.



Installation Notes

**Interference Avoidance:** Avoid installing near constantly moving objects (e.g., curtains, plants) or large reflective surfaces (e.g., metal ducts, mirrors) to prevent false triggering.

**Device Spacing:** Maintain a minimum distance of 4 meters between multiple sensors to prevent mutual interference.

**Mounting:** Ensure the installation surface is vibration-free. Note that radar signals can penetrate surfaces; avoid moving objects directly behind the installation wall/ceiling.

**Wiring Safety:** Disconnect power before wiring. Use certified cables and ensure the circuit includes appropriate short-circuit and overload protection.

**Disclaimer:** Specifications are subject to change without notice. Please follow all wiring diagrams strictly. The manufacturer is not liable for issues caused by improper installation.

Available Accessories



Remote Control (60.99.00C1)

Ordering Information

| P/N        | Short Name    | Model           | Remarks   |
|------------|---------------|-----------------|-----------|
| 60.50.2517 | R5-24G-TYZ/S1 | CTL-SEN-R5/2517 | Main Unit |
| 60.99.00C1 | RC1           | RC1             | Accessory |