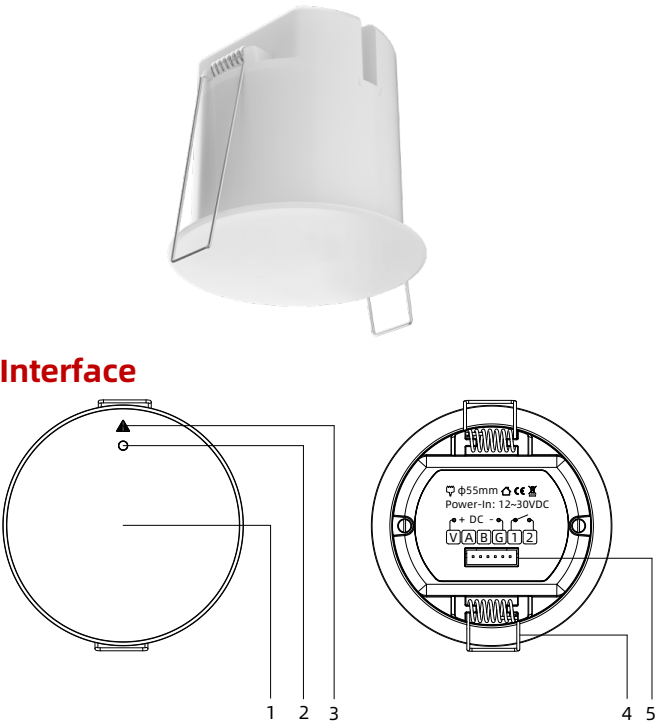


R5-60G-485

The CTL-SEN-R5/6208 is a flagship human presence sensor powered by advanced 60GHz 4D mmWave radar technology. Featuring a robust 4T4R antenna array, it delivers ultra-high resolution to support complex functions, including real-time trajectory tracking, people counting, fall detection, and precise bed occupancy monitoring (in-bed/out-of-bed status). By capturing minute physiological signals (such as breathing), it ensures reliable performance within a Ø6.0-meter coverage area, making it an ideal solution for premium smart home, healthcare, and elderly care applications.



Interface

- 1. Radar Sensing Surface
- 2. Multifunction Window (LED / Illuminance Sensor / IR)
- 3. Orientation Marker
- 4. Spring Clip
- 5. Wiring Terminal (PH2.0 mm × 6 P)

Features

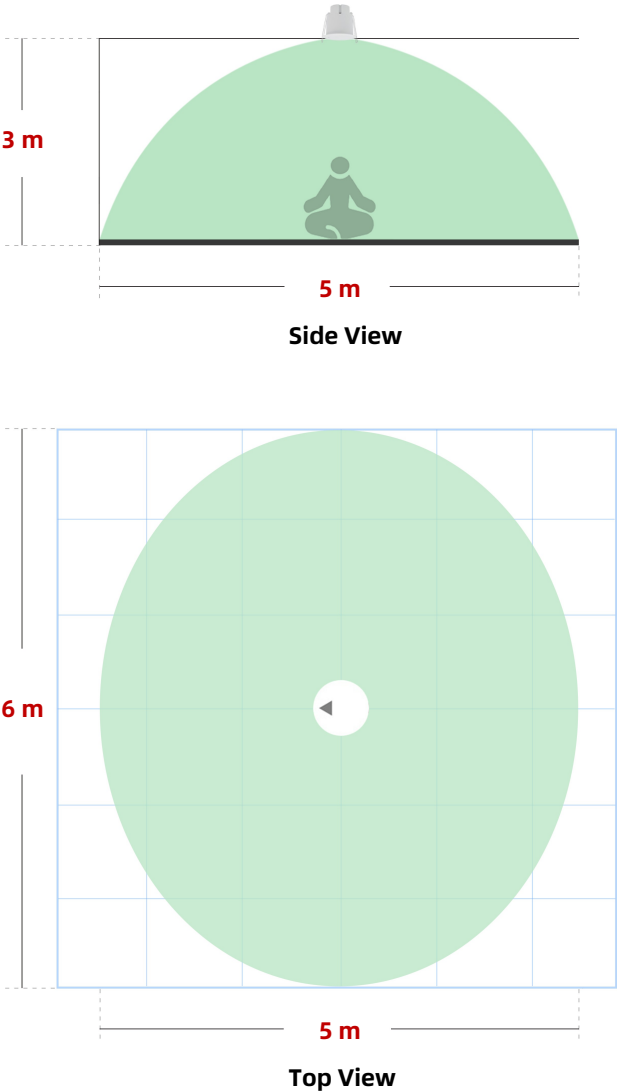
- Presence: Detects stationary presence via breathing micro-motions within 5.0 × 6.0m.
- Fall Detection: Real-time fall identification via point cloud and posture analysis.
- Bed Monitor: Tracks "in-bed" vs. "out-of-bed" status in defined zones.
- Zone Alert: Monitors boundaries (e.g., doorways) for entry/exit alerts.
- Counting: Real-time counting and location tracking for space management.
- Sensitivity and detection distance can be adjusted independently.
- Integrated high-precision sensor for accurate indoor illuminance monitoring.
- Supports multiple protocols via RS485, including Modbus-RTU and Active Reporting.
- Adjustable lighting threshold.

- Supports parameter configuration and status readout via IR remote control.
- Indicator LED brightness automatically adjusts to ambient light levels.

Specifications

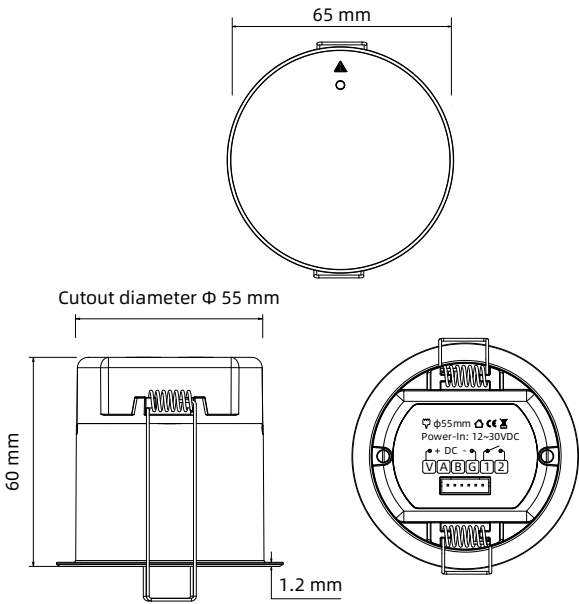
Communication Type	RS485 + Dry Contact
Input Voltage	DC 12 to 30 V
Power Consumption	≤ 3 W
Serial Port Settings	Baud Rate: 1200 to 115200 Data Bits: 8 Parity: None, Even, Odd Stop Bits: 1 to 2 Default: 9600, 8, None, 1
Address Range	01 to 99 (Decimal)
Dry Contact Output	Normally Open Mode, Normally Closed Mode, Normally Open Pulse, Normally Closed Pulse (Defaults to Fall function)
Dry Contact Load	AC or DC ≤ 30 V, ≤ 200mA
Indicator Light	RGB LED
Detection Mode	60GHz FMCW Radar
Antenna Array	4T4R
Operating Frequency	60 to 64 GHz
Transmit Power	≤ 10 dBm
Installation Method	Recessed Ceiling Mount
Mounting Height	2.0 to 3.2 m
Detection Angle	360°
Detection Coverage	5.0 × 6.0 m
Detection Range	1.0 to 6.0 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	70 g
Cable Assembly	UL1007 20AWG Cable Length: 150 mm
Operating Temperature	Indoor -20 to 45°C
Operating 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. This product is an auxiliary device, not a medical instrument. The manufacturer is not liable for issues caused by improper installation or misuse.

Available Accessories

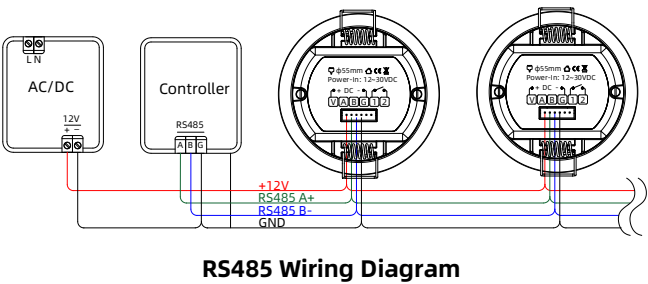


Remote Control (60.99.00C1)

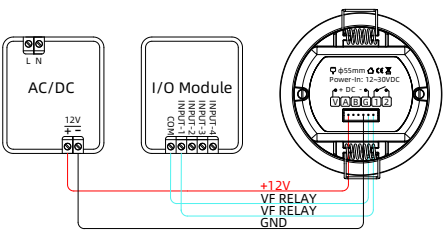
Ordering Information

P/N	Short Name	Model	Remarks
60.50.6208	R5-60G-485	CTL-SEN-R5/6208	Main Unit
60.99.00C1	RC1	RC1	Accessory

Wiring Diagram



RS485 Wiring Diagram



Dry Contact Wiring Diagram