

Pelican Sense - PS1

Pelican Sense is a human presence detection sensor powered by millimeter-wave (mmWave) radar technology. Pelican Sense offers ultra-precise occupancy detection including fine movements and breathing, without compromising privacy.

This technology operates invisibly as a Pelican TC thermostat's vanity plate, ensuring accurate, tamper-resistant sensing without the need for exposed devices.



SPECIFICATIONS

Product Name	Pelican Sense
Part Number	PS1
Wireless Frequency	24 GHz FMCW Radar
Bandwidth	Up to 250 MHz bandwidth FM
Average Working Power	90mA
Detection Distance	~ 30 ft (9 m)
Distance Resolution	~ 2.5 ft (0.75 m)
Detection Angle	±75°
Compliance	FCC, CE, non-committee certification standards
Storage Temperature	-20°F – 160°F
Dimensions	7.25 x 3.5 x 1.25 in (184 x 89 x 32 mm)
Mounting	Wall Mount, Vertical or Horizontal Gang Box
Compatibility	Pelican TC Thermostats with Sense Interface Connector

FEATURES

Temperature and Light Resistant

- Pelican Sense operates reliably in challenging environments where traditional occupancy sensors struggle. It is unaffected by temperature variations, direct sunlight, shadows, or changes in ambient lighting. The sensor performs consistently in both brightly lit spaces and complete darkness.

Motion Speed Detection

- Using advanced 24 GHz FMCW radar technology, Pelican Sense can detect motion and determine movement speed, enabling more intelligent occupancy detection and activity monitoring.

Extreme Accuracy

- Pelican Sense detects micro-movements associated with human presence, including breathing, subtle body movements, and other minute motions. The sensor can determine occupant distance and distinguish between stationary and moving targets, providing highly accurate occupancy detection.

Thermostat Accessory

- Integrated directly into the thermostat vanity plate, Pelican Sense provides a simple retrofit solution for compatible Pelican TC thermostats with the Sense Interface Connector.

Automated Setbacks

- When a space is unoccupied, Pelican Sense automatically initiates configurable temperature setbacks to reduce energy consumption. Occupied and unoccupied set points can be customized based on application requirements and time-of-day schedules.

Adjustable Occupancy Timing

- Occupancy and vacancy timing parameters are fully configurable, allowing the system to balance occupant comfort with energy savings.

	Infrared	mmWave
Weather & Light Resistant	×	○
Detects Movement Speed	×	○
Extreme Accuracy	×	○
High Resolution	×	○
Stationary Detection	×	○
Small Movement Detection	×	○
Directional Movement	×	○
Distance Resolution	×	○
Material Penetration	×	○

