PRODUCT DATASHEET

TECHNICAL DOCUMENTATION

HUMAN-PRESENCE RADAR MODULE

PS-24C-05

Ceiling Presence Sensor — USB Powered, WiFi

Document No.	PS-TDS-24C-05	**Version**	V1.0
Model	PS-24C-05	**Issue Date**	2026-11-08

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Document Information

Document title	presencesensor.com Product Datasheet	**Model**	PS-24C-05
Series	Human Presence Detection (presence)	**Document No.**	PS-TDS-24C-05
Version	V1.0	**Issue date**	2026-11-08
Prepared by	PresenceSensor Engineering Team	**Reviewed by**	Product Department
Classification	Public		

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1 Product Overview

Ceiling-mounted 24.05–24.25 GHz radar sensor with a USB 5 V supply, reporting presence directly over 2.4 GHz WiFi with no gateway. Motion, static and sleep detection ranges are documented separately.

- Model: PS-24C-05
- Product: Ceiling Presence Sensor — USB Powered, WiFi
- Series: Human Presence Detection (presence)
- Frequency band: 24.05–24.25 GHz

2 Key Features

- 24.05–24.25 GHz radar with motion, static and sleep detection ranges
- USB 5 V / 1 A supply
- 90° horizontal × 60° vertical field of view
- Direct 2.4 GHz WiFi link — no gateway required
- Scene modes set the detection diameter for the room

Features are typical for this series. Refer to the latest datasheet for model-specific values.

3 Applications

Retrofit hotel rooms and apartments where adding a gateway is the obstacle to occupancy sensing.

4 Technical Specifications

Frequency band	24.05–24.25 GHz	**Modulation**	—
Supply voltage	USB 5 V / 1 A	**Operating current**	—
Average power	—	**Detection range**	3–6 m
Field of view	90° horizontal × 60° vertical	**Range resolution**	—
Interface	WiFi 2.4 GHz	**Output**	—
Operating temp.	−10 to +50 °C	**Storage temp.**	—
Dimensions	29.5 × 73 × 86 mm	**Antenna**	—

Certification	—	**Remarks**	2.4 GHz WiFi only; the phone must be on the same 2.4 GHz band during commissioning.

Table 1 Technical specifications. Subject to the latest datasheet without prior notice.

5 Wiring Terminals

The module uses a 5-pin header/socket interface defined as follows:

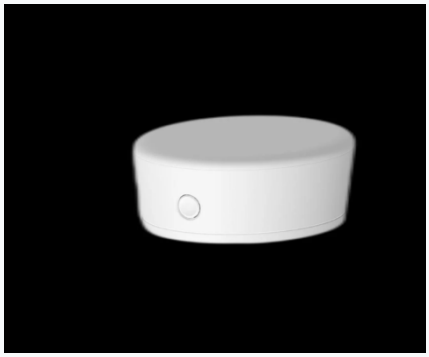
Pin	Name	Type	Description
1	USB	Power	USB 5 V / 1 A supply (power cable supplied)
2	—	—	—
3	—	—	—
4	—	—	—
5	—	—	—

Table 2 Pin definition. Refer to the datasheet of the specific model.

6 Dimensions and Installation

6.1 Dimensions

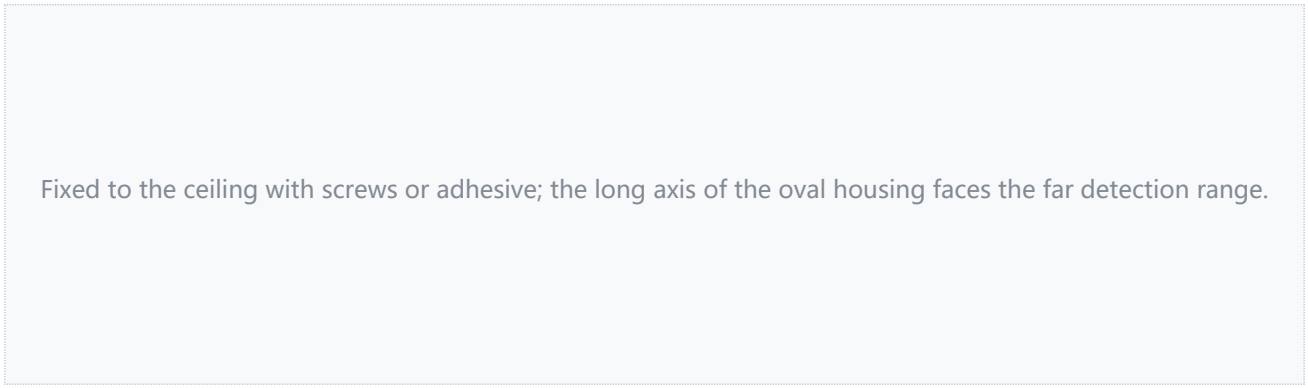
Outline dimensions per the manufacturer drawing (unit: mm).



Product illustration

6.2 Installation

Fixed to the ceiling with screws or adhesive; the long axis of the oval housing faces the far detection range.



Installation

Refer to the Installation Guide of the specific model for the relationship between mounting height, tilt angle and detection coverage.

7 Communication and Configuration

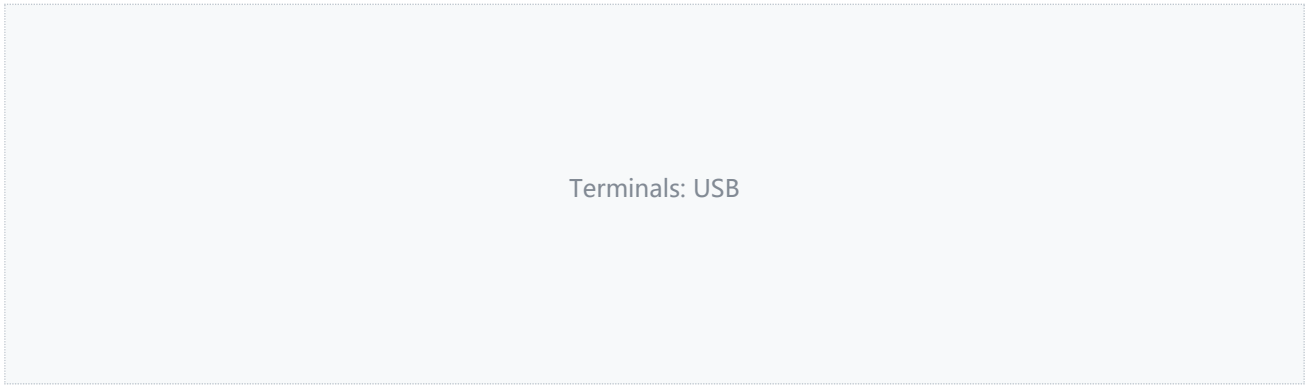
7.1 Communication Protocol

The sensor connects to 2.4 GHz WiFi (5 GHz is not supported) and is commissioned in the mobile app.

7.2 Configuration Tool

Configuration is done through the platform the device is paired with.

7.3 Typical Application Circuit



Wiring terminals

8 Model Selection

The series is organized by frequency band and sensing function. Select a model based on detection range, mounting method and interface.

Model	Band	Series	Typical Application
PS-24C-05	24G	Human Presence Detection	Indoor presence detection, smart lighting, building energy saving, security automation, elderly care
PS-24C-01	24G	Human Presence Detection	Indoor presence detection, smart lighting, building energy saving, security automation, elderly care
PS-24C-02	24G	Human Presence Detection	Indoor presence detection, smart lighting, building energy saving, security automation, elderly care
PS-24C-03	24G	Human Presence Detection	Indoor presence detection, smart lighting, building energy saving, security automation, elderly care

Table 3 Model selection. See the product center on the website for the complete model list.

9 Document Downloads

The following documents are available for this model on its product page at {SITE_BRAND}.

Category	File	Version	Description
Development	—	—	Datasheet / user manual / protocol
Development	—	—	Schematics / footprint / 3D model
Application	—	—	Configuration tool
Utility	—	—	Serial driver / terminal

Table 4 Document list. File names and versions follow the download page.

10 Ordering Information and Support

Please specify the model, quantity and interface when ordering. For samples, quotations or technical support:

- Website: presencesensor.com

- Products: presencesensor.com/products
- Support: sales@presencesensor.com
- Sales: sales@presencesensor.com

Appendix A Revision History

Version	Date	Description	Prepared / Reviewed
V1.0	2026-11-08	Initial release	PresenceSensor Engineering Team
—	—	—	PresenceSensor Engineering Team
—	—	—	PresenceSensor Engineering Team

Table 5 Revision history. Update the version and date for every revision.