PRODUCT DATASHEET

TECHNICAL DOCUMENTATION

HUMAN-PRESENCE RADAR MODULE

PS-24C-01

Ceiling Presence Sensor — 24 GHz, Zigbee, Mains

Document No.	PS-TDS-24C-01	**Version**	V1.0
Model	PS-24C-01	**Issue Date**	2026-11-08

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Document Information

Document title	presencesensor.com Product Datasheet	**Model**	PS-24C-01
Series	Human Presence Detection (presence)	**Document No.**	PS-TDS-24C-01
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 GHz radar sensor for human presence. It detects breathing, micro-motion and movement, reports whether the area is occupied even when the person is still or asleep, and switches the lighting load directly. Detection distance (0–7 m) and delay (0–24 min) are configured in the app after pairing with a Zigbee gateway.

- Model: PS-24C-01
- Product: Ceiling Presence Sensor — 24 GHz, Zigbee, Mains
- Series: Human Presence Detection (presence)
- Frequency band: 24 GHz

2 Key Features

- 24 GHz radar detects breathing, micro-motion and movement, including a stationary person
- Detection distance 0–7 m, adjustable in the app
- Delay time 0–24 min, adjustable in the app
- 120° field of view; recommended ceiling height 2.7–3 m
- Switched output rated up to 300 W, plus 0–3000 lux light sensing

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

3 Applications

Corridor, bathroom, storage and office lighting where the light must stay on while a person is present but motionless.

4 Technical Specifications

Frequency band	24 GHz	**Modulation**	—
Supply voltage	110–260 V AC	**Operating current**	—
Average power	≤300 W	**Detection range**	0–7 m (app-adjustable)
Field of view	120°	**Range resolution**	—
Interface	Zigbee	**Output**	VIN / VOUT / GND
Operating temp.	—	**Storage temp.**	—

Dimensions	Ceiling, Ø50 mm cut-out	**Antenna**	—
Certification	—	**Remarks**	Detection figures are reference values from the manufacturer and depend on mounting height and sensitivity setting.

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:

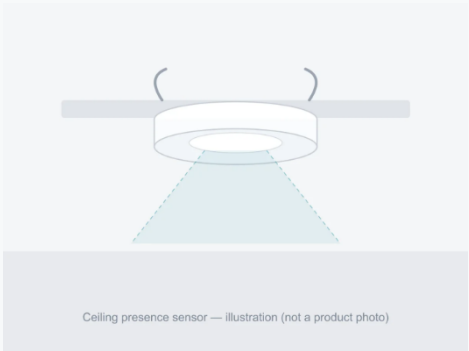
Pin	Name	Type	Description
1	VIN	Power	Mains input 110–260 V; switch off the breaker first
2	VOUT	Output	Switched output, lighting load ≤300 W
3	GND	Power	Ground
4	—	—	—
5	—	—	—

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

6 Dimensions and Installation

6.1 Dimensions

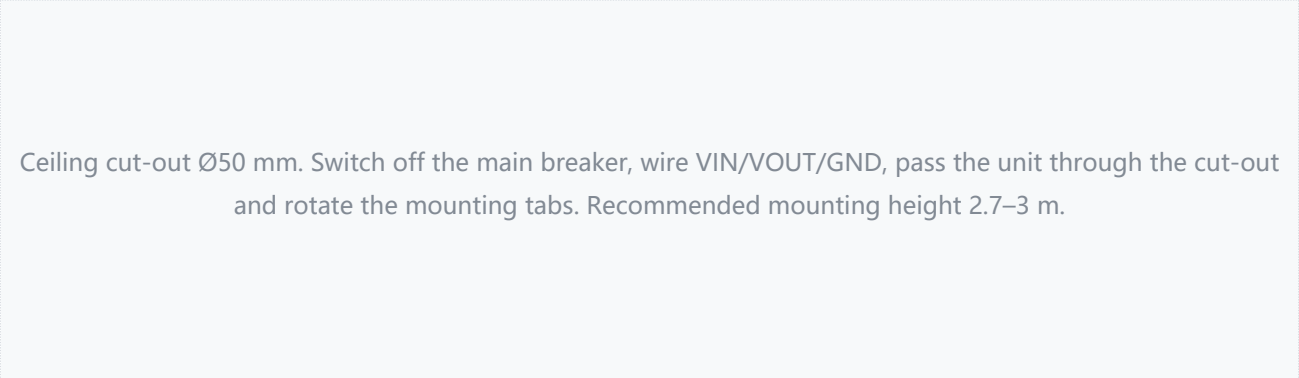
Outline dimensions per the manufacturer drawing (unit: mm).



Product illustration

6.2 Installation

Ceiling cut-out Ø50 mm. Switch off the main breaker, wire VIN/VOUT/GND, pass the unit through the cut-out and rotate the mounting tabs. Recommended mounting height 2.7–3 m.



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

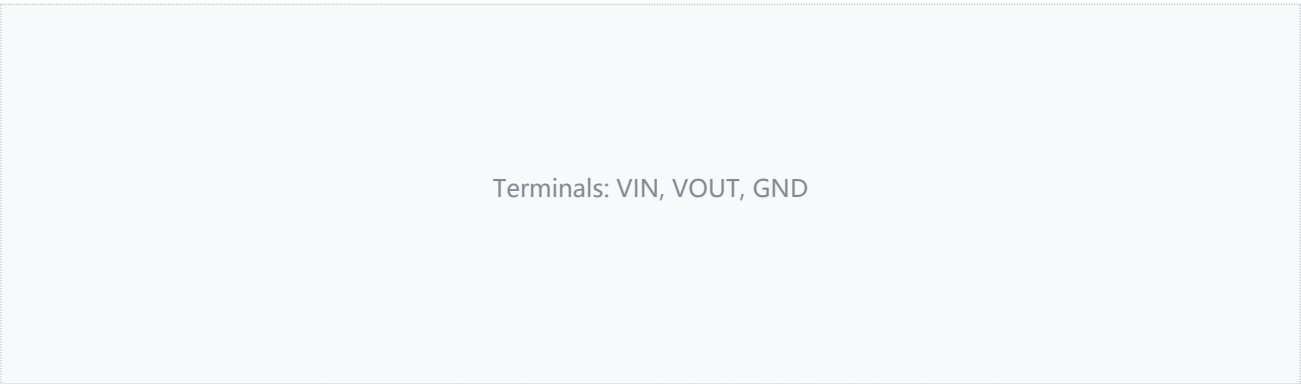
7.1 Communication Protocol

Presence state and ambient light level are reported over Zigbee to a gateway. Detection distance and delay are set in the 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-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
PS-24C-04	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.