RAPTORTRON · USER MANUAL · SMART SENSOR

SSI

Installation, wiring, pairing and safety instructions for the SSI presence sensor with integrated Triac dimmer.



User manual · English edition

01 Product overview



SSI smart sensor.

Presence sensor with an integrated Triac dimmer, combining PIR, microwave radar and a light sensor.

ITEM	DETAIL
Model	SSI
Category	Smart sensor

02 Features

1. A smart presence-sensor switch, ceiling or wall mounted, that automatically controls the connected electrical devices when someone is detected.
2. Flexible applications: supports both standard ON/OFF devices and Triac-dimmable lighting systems.
3. Built-in Raptortron Mesh technology for seamless connection to the smart home automation system.
4. Complete remote management, control and calibration through the Raptortron mobile app.
5. Operating schedules and advanced automation rules can be set.
6. Combines a PIR infrared sensor, microwave radar and a light sensor to improve accuracy and minimise false triggering.

03 Technical specifications

01 Design & dimensions

SPECIFICATION	VALUE
Glass colour	Black / White
Bezel colour	Silver / Gold
Dimensions	86mm x 86mm x 30mm
Compatible flush box	75mm x 75mm

02 Sensing & measurement

SPECIFICATION	VALUE
Built-in sensor types	PIR motion sensor, radar presence sensor, ambient light sensor

03 Control interface

SPECIFICATION	VALUE
Control type	01 channel with 02 output options: Relay or Triac Dimmer
Touch control	02 keys: 01 ON/OFF key and 01 Auto/Manual mode key

04 Power & load

SPECIFICATION	VALUE
Input voltage	80 VAC ~ 240VAC / 50~60Hz
Resistive load rating	5A/channel Relay or 300W/channel Dimmer
LED load rating	150W/channel Relay or 150W/channel Dimmer
Maximum inrush current	10A/channel Relay or 5A/channel Dimmer
Standby power consumption	< 1W
Protective fuse	20A

05 Connectivity

SPECIFICATION	VALUE
Wireless communication	Raptortron Mesh
Wireless range	100m open air / 30m indoor

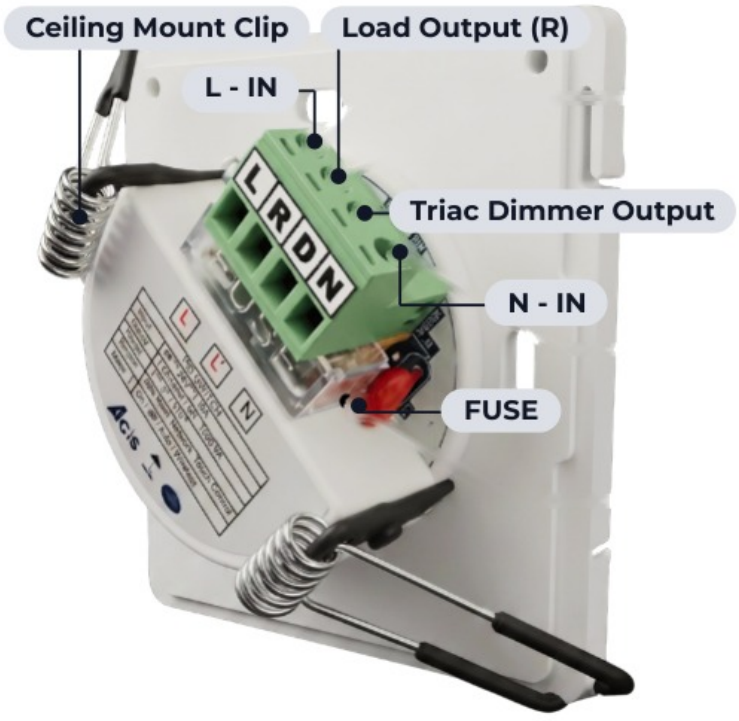
06 Indicators & alerts

SPECIFICATION	VALUE
Status indicator LED	Blue
Night locator light	Yes
Audible alert	Yes

04 Installation guide



Front view. Keys 1 and 2; plate 86 mm x 86 mm.



Wiring diagram (rear view of the sensor body).

Diagram legend

MARK	MEANING
1	ON/OFF
2	Auto/Manual
L-IN	Live wire supplying power to the device.
Load Output (R)	Load output: connects to the controlled device (light, relay).
Triac Dimmer Output	Triac dimmer output: controls the brightness of dimmable lights.
N-IN	Neutral wire supplying power to the device.
FUSE	Protective fuse: breaks the circuit when the current exceeds the safe limit.
Ceiling Mount Clip	Spring clip that holds the device in the ceiling flush box.

In the box

- Raptortron sensor
- Touch glass panel with bezel
- Wall screws (if needed)
- Quick guide & warranty card

Installation steps

1. **Choose the location.** Place the sensor in a position that suits the detection range of the product (see Technical specifications for details).
2. **Switch off the power.** Turn off the main circuit breaker for the area where the switch is installed. Use a voltage tester to confirm that there is no power at the switch location.
3. **Connect the wires.** Connect the L (Live) and N (Neutral) wires to the matching terminals on the switch body. For a switch that controls loads: connect the load wire (L-out) to the device. For a curtain switch: connect the 2 dry contacts (NO) to the Open/Close motor.
4. **Mount in the flush box.** Place the switch body in the 75×75mm flush box and tighten the 2 screws evenly; make sure the face sits flat against the wall.
5. **Fit the glass panel.** Align the touch glass panel with the body and press all 4 corners evenly until it clicks into place; fit the decorative bezel on the outside.
6. **Restore power.** Switch the circuit breaker back on. The indicator LED lights up and the device enters standby, waiting to be connected.

05 Connection guide

Preparation

- Raptortron smart switch
- 1 central hub with an Internet connection
- Raptortron app already connected to the central controller (make sure the phone and the central controller are on the same Internet network)

Download the Raptortron app for Android or iOS.

In the Raptortron app: auto learn

1. **Tap.** Open the Raptortron app, tap the "Menu" icon at the top of the screen, then select "Devices".
2. **Tap.** Tap the "Auto learn" icon.
3. **Tap.** When the "Auto learn" dialog appears, tick the "I have understood and agree" box, then tap **"OK"** to confirm.
4. The system starts a 60-second countdown to scan automatically and complete the device connection.

Important

- Auto learn fails if the number of devices exceeds the capacity limit of the central controller.
- In that case, see the Technical specifications of the central controller for the number of devices allowed, or switch to the manual learn method.

In the Raptortron app: manual learn

1. Open the "Menu" in the app, then go to "Devices".
2. **Press and hold.** Press and hold the icon of the device that you want to re-learn or replace.
3. In the list of options that appears, select "Manual learn".
4. **Tap.** When the "Manual learn" dialog appears, tap the "Learn" button. The dialog shows the Device code and the Serial number of the device.
5. The app counts down 60 seconds to finish synchronising and remembering the new device.

Teaching the device ID to the central controller

Do this on the device while the app is counting down.

1. **Press and hold.** Press and hold **key "1"** to enter the MENU.
2. **Press.** Press **key 1** to teach the ID. Make sure the MCE is in ID-teaching mode.



Key positions.

Result

- **If the ID is taught successfully:** the device exits automatically.
- **If teaching the ID fails:** the green LED keeps blinking. To try again, press key 1, or press and hold key 2 to exit.

06 Safety notes

!	Use only a power supply that matches the technical specifications in this document. Using the wrong power supply can damage the device and be dangerous.
!	Do not open or repair the device while it is powered. All electrical wiring must be done by a qualified electrician.
!	Keep the device in a dry place, away from direct water splashes (except models explicitly rated as water-resistant, IP xx).
!	The product is covered by the official Raptortron warranty policy. Please keep your purchase invoice for the best support.

English edition translated in full from the manufacturer's original manual. Specifications are subject to change; current data: https://raptortron.com/product-ssi.html. Online version: https://raptortron.com/manuals/ssi/