

RS-40 Occupancy Sensor

Wireless Occupancy Sensing for Smart Buildings

Overview

The Rigado RS-40 Occupancy Sensor is a battery-powered passive infrared (PIR) sensor that provides real-time occupancy and space utilization data for Enterprise IoT applications. The RS-40 sensor is designed for workplace and conference room monitoring and captures even the small movements of people working at desks.

The RS-40 Occupancy Sensor is pre-integrated with Rigado's Edge Connect solution and can be bundled with the Cascade offering to create a versatile, cost-effective solution for large-scale low-power wireless occupancy sensing deployments.



Specifications

Wireless Connectivity	<ul style="list-style-type: none"> • Supports Rigado wireless technologies • Long range with low power
Sensor	<ul style="list-style-type: none"> • Passive Infrared technology tracks heat movement to identify people • Filtering to prevent false positive detection • Optional sensor blocking to limit detection area in open spaces
Low Power	<ul style="list-style-type: none"> • Battery-powered device can operate three to six years on two AAA-sized replaceable alkaline batteries.
Coverage	<ul style="list-style-type: none"> • Small motion occupancy sensing out to 6 meters • Wide angle lens with 135° field of view
Enclosure	<ul style="list-style-type: none"> • Small form factor and durable design • IP40 rating
Easy install	<ul style="list-style-type: none"> • Designed to easily attach to any flat surface with durable double sided tape. • Corner and screw in mount adapters available.

Key Features & Benefits

Reliable Occupancy Data

Combining advanced sensing technology and algorithms allows detection of people working at workstations, conference rooms, and other spaces.

Simple, Extended Connectivity

Quick and easy setup with Rigado Edge Connect data pipeline. Pre-configured sensor-to-cloud connectivity gets data in your hands quickly.

Easy Management

Works with Rigado Edge Direct for fast, secure device orchestration & updating at scale with performance monitoring & alerts included.

Multi-level Security

Hardware- and software-level security features with secure over the air updating.

Device Specifications

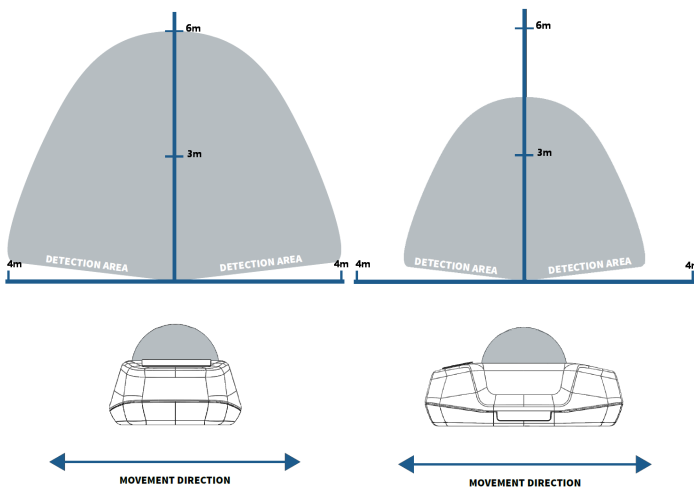
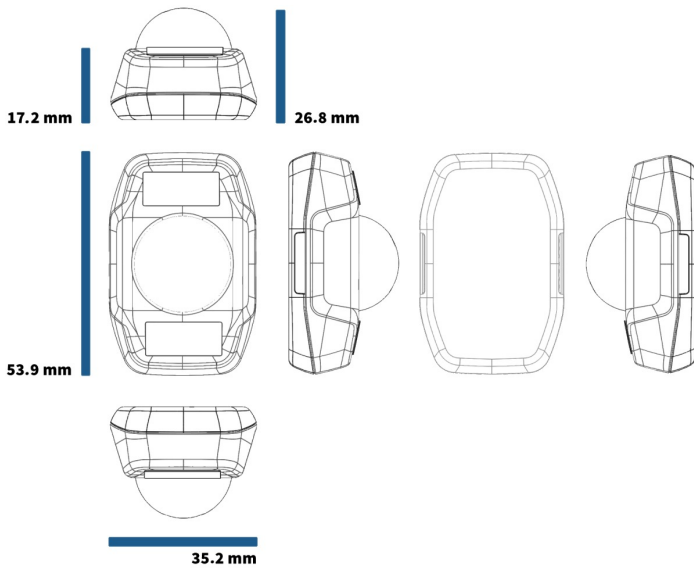
Form Factor	53.9mm x 35.2mm x 26.8mm (2.13in x 1.39in x 1.06 in)
Weight	37g (batteries 23g)
Operating Temp.	0°C to +50°C
IP Rating	IP40
Battery	Type 2 x AAA, replaceable Capacity ~1200Mah Expected life 5 years (standard firmware)
Radio Sensitivity	-95 dBm (BTLE)
Radio Connectivity	Wirepas Mesh, Rigado wireless technologies
Certifications	CE, FCC, ISED, and RoHS compliant
LED light for confirmation purposes	

Default Functionality

- Reports an indicative count of detected movement every 10 seconds
- Max count per minute: 34 events
- LED Blinks red once when starting up
- The following parameters are configurable via OTA updating:
 - Reporting Interval
 - Sensor sensitivity
 - Wirepas head-node and sub-node configuration
 - Movement indication LED

Mounting Recommendations

- Mount to dust-free ceiling or wall
- Mount facing directly at target sensing area at a distance of 2-3m with a clear line of sight
- Wall mount applications: Mount with long axis vertical
- Ceiling mount applications: Mount with long axis perpendicular with most important coverage direction
- Mount using provided double-sided tape on unit



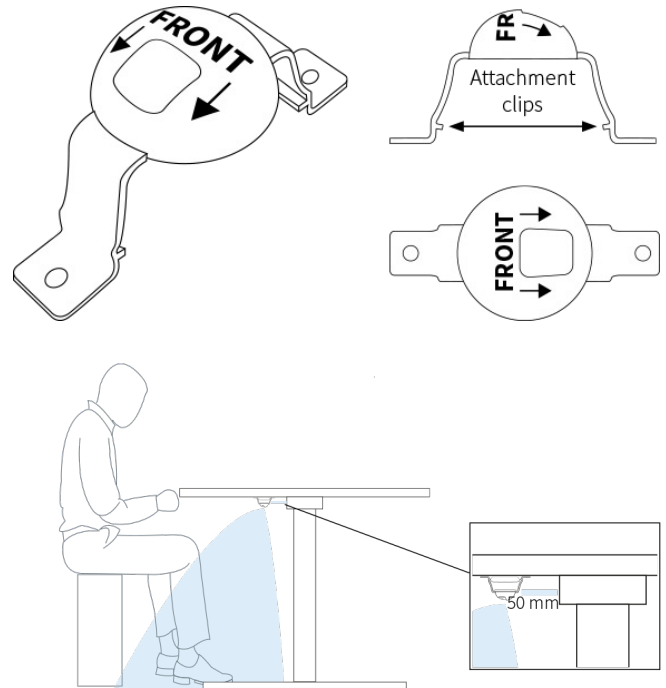
Certifications



Desk Occupancy Dome Accessory

In desk occupancy monitoring use cases the sensor's detection beam range can be adjusted easily using the optional Desk Occupancy Dome. The Dome accessory is simple to attach over the sensor lens to limit its active area – attached to the sensor using the built-in clips or screws (not included).

The sensor is installed on the underside of a desk or table to detect and monitor individual presence and usage. This configuration can be used to monitor desk and table usage in private office, common area and conference room applications.



Enterprise IoT Applications

Desk Presence, Room Occupancy, Visitor Count

Cloud Services

AWS, Azure, Private or On-premises

Edge Direct Deployment Tools

Cascade-500 IoT Edge Gateway

Edge Connect Device Management

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How the RS-40 Sensor Works

The RS-40 Occupancy Sensor is based on passive infrared (PIR) and detects changes in heat sources within its range (i.e. humans in motion).

Collected data is stored on the device and sent in pre-defined intervals (10 seconds default) via low power wireless to the Cascade gateway for processing and delivery to cloud services.

Device management including connectivity is handled within the Rigado Edge Connect app, requiring no programming experience for sensor configuration and updating.

About Rigado

The Rigado Edge-as-a-Service platform is deployed in more than 15,000 locations across 75 countries. Rigado connects over 6 million devices for Enterprise IoT solutions including smart office and buildings, connected retail, and intelligent logistics.

Rigado was founded in 2010 and is headquartered in Portland, OR with EMEA offices in London.