# 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 | • Supports Rigado wireless technologies  
| | • Long range with low power |
| Sensor | • 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 | • Battery-powered device can operate three to six years on two AAA-sized replaceable alkaline batteries. |
| Coverage | • Small motion occupancy sensing out to 6 meters  
| | • Wide angle lens with 135° field of view |
| Enclosure | • Small form factor and durable design  
| | • IP40 rating |
| Easy install | • 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.
RS-40 Occupancy Sensor

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

- [CE](#)
- [FCC](#)
- [Industry Canada](#)
- [RoHS](#)
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.

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.