

# COMFORT Base Smart Room Sensor

## LoRaWAN® connected Home and Office Environment Monitoring

TEKTELIC COMFORT integrates practical functionality into a very small form factor. The COMFORT is an ideal solution for holistically monitoring the home and office environment. The device is capable of measuring and reporting temperature, humidity, light, movement, shock, detecting leaks, open / closed doors and windows. It also supports battery status updates for easy maintenance.

- Smart Home & Office
- Indoor Environment Monitoring
- Room Occupancy
- Facility Management
- Moisture/Leak Detection
- Desk Occupancy
- Point of Entry Security
- HVAC Optimization

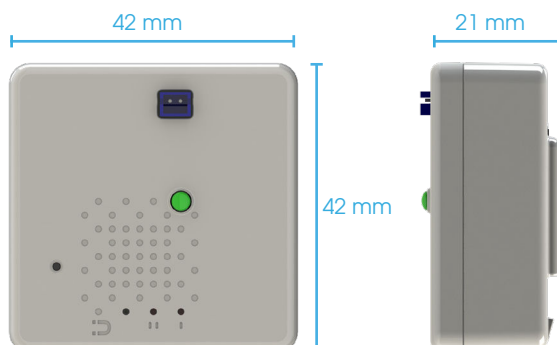


## Features

- » User Configurable Parameters and Thresholds
- » Designed for Optimal Battery Life
- » Multiple PIR Masking Options
- » Long Battery Life
- » Wall, Ceiling or Table Mount Configurations
- » Simple Deployment
- » Sleek and Unobstrusive Design

## Applications

- » Movement Detect (Doors, Windows, Drawers)
- » G-Force Measurement (Settable Trigger)
- » On / Off External Contact
- » On / Off Internal Magnetic Switch
- » Pulse Reading (Water, Gas, other metering)
- » Light Detection (On / Off)
- » Temperature Measurement
- » Humidity Measurement
- » Moisture / Leak Detection



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### Technical and Functional System Specifications

#### General System Parameters

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Operational Temperature           | 0°C to 60°C (10°C to 40°C optimal)    |
| Storage Temperature               | -30°C to 60°C (0°C to 30°C optimal)   |
| Relative Humidity-Operational     | 5% - 95% Non-Condensing (Operational) |
| Ingress Protection                | IP30                                  |
| Size                              | 42 x 42 x 20 mm (enclosure)           |
|                                   | 42 x 42 x 21 mm (with bracket)        |
| Weight (including batteries)      | 28g                                   |
| Battery                           | CR2477                                |
| External Connector (Base Variant) | Connector Type: JST A02ZR02ZR28H305B  |
|                                   | ≤ 20Hz (Pulse Reading)                |
|                                   | Driven by open drain/relay contact    |

#### Wireless Parameters

|                     |                                   |
|---------------------|-----------------------------------|
| RF Power            | 14 dBm                            |
| RF Sensitivity      | up to -137dBm                     |
| LoRa Radio          | SX1261                            |
| Supported ISM Bands | NA915, EU868, EU433, AU915, AS923 |
|                     | CN470, CN779, IN865, KR920, RU864 |
| Antenna             | Internal                          |
| LoRa Device Class   | A                                 |

#### Sensor Variants

| Sensor Function         | PIR Variant | Base Variant |
|-------------------------|-------------|--------------|
| Motion Detection (PIR)  | ✓           |              |
| On/Off Magnet switch    | ✓           | ✓            |
| Moisture/Leak Detection |             | ✓            |
| Accelerometer           | ✓           | ✓            |
| G-Force Measurement     | ✓           | ✓            |
| On/Off External Contact |             | ✓            |
| Light Detection         | ✓           | ✓            |
| Temperature             | ✓           | ✓            |
| Humidity                | ✓           | ✓            |

#### Optimized Battery Life (Years) - CR2477

|                         |        |
|-------------------------|--------|
| Operational Temperature | 20°C   |
| Tx Power                | 14 dBm |
| Rx Cycle/Hour           | 1      |

| Variant | Transmission     | SF 10<br>125 kHz | SF 7<br>125 kHz | SF 8<br>500 kHz |
|---------|------------------|------------------|-----------------|-----------------|
| Base    | 4 packets / hour | 4.8              | 11.2            | 13.0            |
|         | 3 packets / hour | 5.9              | 12.5            | 14.1            |
|         | 2 packets / hour | 7.8              | 14.1            | 15.5            |
|         | 1 packets / hour | 11.0             | 16.3            | 17.1            |
|         | 1 packets / day  | 18.5             | 19.0            | 19.1            |

#### Regulatory Compliance

|            |                            |
|------------|----------------------------|
| Safety     | IEC 60950-1 (CE)           |
| Regulatory | ETSI EN 300 220            |
|            | ETSI EN 301-489-1/-3       |
|            | FCC 15.247      FCC 15.209 |

Specifications subject to change without notice.

TEKTELIC Communications is a premier supplier of best-in-class LoRaWAN® IoT Gateways, Sensors, and custom applications. These elements combined provide a powerful end-to-end solution that can be easily, quickly, and cost effectively deployed to address the most demanding IoT challenges.

For more information please visit [www.tektelic.com](http://www.tektelic.com)