

LOYBT-TEMP1 / LOYBT-TEMP2

Datasheet #89086603



The LOYBT-TEMP1 / LOYBT-TEMP2 Bluetooth sensor is a battery powered sensor for measuring environmental properties like room temperature and relative humidity. It acts as a low-power node in a Bluetooth Mesh network and publishes sensor data on change of value as well as periodically.

The device allows to perform measurements at the location of your choice and after adding the sensor to a LOYTEC Controller the sensor data is automatically mapped to the system registers room temperature and humidity.

The type LOYBT-TEMP2 additionally offers presence detection based on an integrated vibration sensor. Vacant and occupied workspaces can be determined if the sensor is placed properly, e.g. by being mounted on the backside of a chair.

A device wake up can be forced by pressing the service button. After wake up the LOYBT-TEMPx will perform one of the following actions: if the device is not a member of a Bluetooth Mesh network it will start broadcasting an unprovisioned mesh beacon, if no friendship relation is established it will try to find a friend, and otherwise it will simply start transmitting sensor data.

A service button press is always acknowledged by blinking of the status LED. The LED is also used to indicate power-up and firmware update procedure.

Features

- Easy integration with Bluetooth Mesh enabled LOYTEC controllers (e.g. LPAD-7)
- Bluetooth Mesh based sensor
- Supports low power node feature
- Temperature sensor
- Humidity sensor
- Vibration based presence detection (LOYBT-TEMP2 only)
- Battery powered, expected battery lifetime: 1 year
- Battery level reporting
- Supports firmware update
- Service push button for manual interaction
- LED for optical feedback

Specifications

Dimensions (mm)	30 x 13 (Ø x H), DIM082
Installation	Wall mounted (screw or adhesive tape)
Power supply	Battery powered (CR2032), expected battery life time: 1 year
Operating conditions	0 °C to 50 °C, 10 – 90 % RH, noncondensing, degree of protection: IP20
Interfaces	1x Bluetooth Mesh (low power node) 1x Service Push Button 1x LED (optical feedback)
Bluetooth & RF-characteristics	Maximum output power: +4 dBm Frequency range: 2402-2480 MHz
Temperature Measurement	0°C to 50°C, resolution 0.1°C, accuracy: ± 0.2° (0°C-70°C)
Relative Humidity Measurement	0%-100%, resolution: 1% Accuracy: typ. ± 2.2% R.H. @25°C, 20%-80% R.H. typ. ± 4% R.H. @25°C, 0%-20% R.H. and 80%-100% R.H.
Occupancy detection	Vibration (LOYBT-TEMP2 only)
Sensor Data Update	Periodically: 5 minutes interval Change of Temperature Value: >0.5° since last publication Change from Unoccupied to Occupied (LOYBT-TEMP2 only)
Bluetooth protocol conformance	Bluetooth 5.1 Declaration ID: D060851 contains qualified designs: 150092 (controller subsystem), 176697 (host subsystem) and 178269 (mesh profile subsystem)
For use with	Bluetooth Mesh enabled LOYTEC controller (e.g. LPAD-7)

Order number	Product description
LOYBT-TEMP1	Bluetooth Mesh temperature sensor (5 pieces per package)
LOYBT-TEMP2	Bluetooth Mesh temperature and vibration sensor, 5 pieces per package

Dimensions of the devices in mm and [inch]

DIM082 LOYBT-TEMP1
LOYBT-TEMP2

