ps⏸systec

SMARTsens BeaconTH

Waterproof wireless solution for ambient temperature and humidity measurements

The beacon is a solution with ultra-low power chipset and BLE 5.0 technology.

The sensor provides ambient temperature and humidity and is built to suit all industrial scenarios for environmental monitoring e.g., manufacturing, healthcare, warehousing. etc.

The beacon is IP67 waterproof and thus suitable for humid measurement environments.

In addition, it can save more than 60,000 temperature and humidity history points and supports a maximum coverage of 600m.

Key Features

- High-precision temperature and humidity sensor
- IP67 waterproof
- Up to 60,000 T&H log records
- Coded PHY long range 600m(1968ft)

- Easy to replace the battery, > 4 yeas battery life
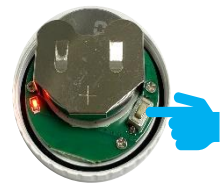- 8 dBm Tx power
- 3-axis acceleration sensor

SPECIFICATION

Main Features

Battery capacity	CR2477 (replaceable)
Battery life	4 years
Button	1 Button (internal)
LED	1 LED
Sensor	Temperature & Humidity sensor Acceleration sensor
COMPATIBILITY	iOS 8.0+, Android 4.3+ OS system, any BLE 4.x/5.0 compatible device
Chip	Nordic nRF52 Series
Bluetooth version	BLE 5.0 (compatible with BLE 4.x)
TX power	-40dBm ~ +8 dBm
Broadcast Interval	100 ms ~ 40000 ms
Transmit range	· Normal: Maximum 180m(590ft) in open space · Coded PHY: Maximum 600m(1968ft) in open space
OTA	YES
Temperature measurement	Range: -30℃ ~ 75℃
T Measurement accuracy:	· 0 ~ 60℃: ±0.4℃
	· ≥ -20 and ≤ 0℃: ±0.6℃
	· < -20 OR > 60℃: : ±0.8℃
Humidity measurement	Range: 0~100%
H Measurement accuracy:	· 0 ~ 75℃: ±5%
	· ≤0 OR ≥ 75℃: ±5%
Accelerometer	Range: +/-2 g, can be adjusted by firmware
Acc. Measurement accuracy:	+/-32 mg
IP rating	IP67 waterproof
Working temperature	-40℃ ~+70℃
Working humidity	0 ~ 99% RH
Size	Dia. 38mm x 12mm
Material	ABS
Colour	White (other colours on request possible)
Weight	24g (with battery)
Conformance	FCC and CE
Warranty	2 Years

IDENTIFICATION CODE

The QR code is on top of the device and consists of:

- MAC address of the beacon,
- Serial No.;

Example: MAC:BC5729032ABD, SERIAL:379702;

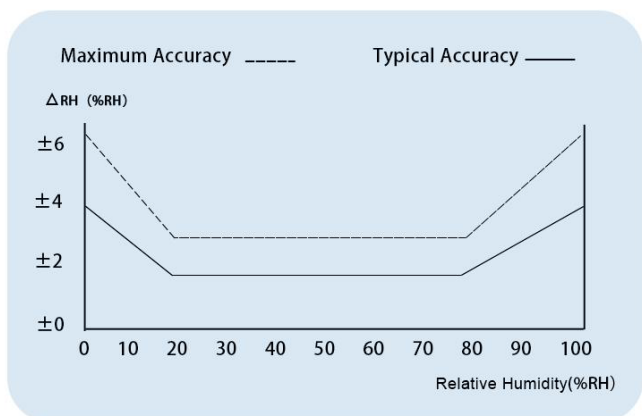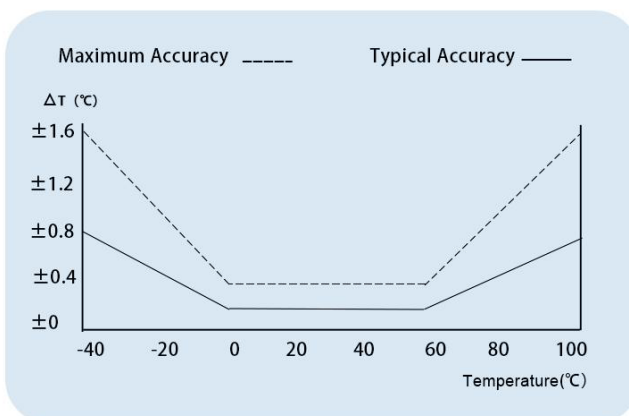| Configurable Parameters	Item	Default settings
Ksensor (on)	Battery level	Actual measurements
	Temperature	
	Humidity	
	Acceleration X/Y/Z	
iBeacon (off)	UUID	Not broadcasted by default
	Major/Minor	
	Measured power	
Eddystone UID/URL/TLM (off)	Instance ID	Not broadcasted by default
	Namespace ID	
	Measured power	
System	MAC address	
	Model ID	59
	Battery percent	0 ... 100%
	Software version	6.x
Password	Password	0000000000000000
Connectable mode	Connectable or not	YES

BASIC OPERATION

Power on: The product is shipped powered off by default. Open the housing by counter-rotating the lid. Press the button for more than 3 seconds to turn on the device. The LED will light up one time for one second.

Power off: Open the housing by counter-rotating the lid. Press the button for 8 seconds, the LED will flash a couple of times.

Temperature & Humidity Sensor Accuracy

The information and instructions contained in this datasheet have been compiled with the greatest possible care. However, we accept no liability for any errors, inaccuracies, or omissions in this datasheet. The use of the datasheet is at your own risk.