

# LoRaWAN Waterproof /Outdoor Temperature Sensor

## D22-LB



## OVERVIEW:

The Dragino D22-LB is a [LoRaWAN Temperature Sensor](#) for Internet of Things solution. D22-LB will convert the Temperature reading to LoRaWAN wireless data and send to IoT platform via LoRaWAN gateway.

The LoRa wireless technology used in D22-LB allows device to send data and reach extremely long ranges at low data-rates. It provides ultra-long range spread spectrum communication and high interference immunity whilst minimizing current consumption.

The temperature sensor used in D22-LB can [measure -55°C ~ 125°C with accuracy ±0.5°C](#) (max ±2.0 °C).

D22-LB supports [temperature alarm feature](#), user can set temperature alarm for instant notice.

D22-LB supports [Datalog feature](#), it can save the data when there is no LoRaWAN network and uplink when network recover.

D22-LB supports [BLE configure and wireless OTA update](#) which make user easy to use.

D22-LB is powered by [8500mAh Li-SOCI2 battery](#), it is designed for long term use up to 5 years.

Each D22-LB is pre-load with a set of unique keys for LoRaWAN registrations, register these keys to local LoRaWAN server and it will auto connect after power on.

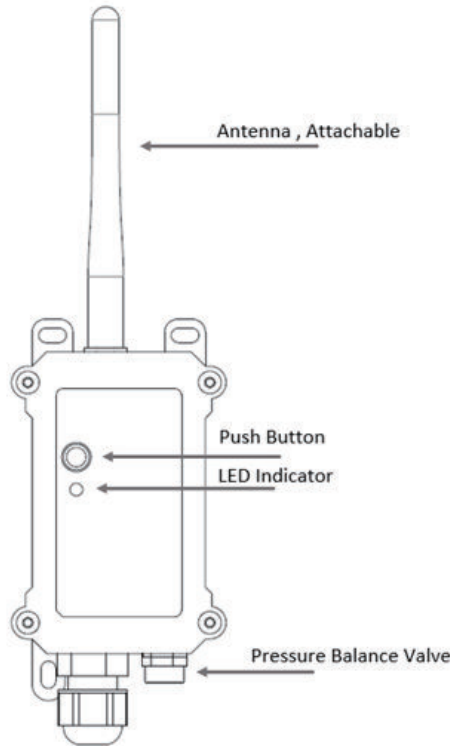
## Features:

- LoRaWAN v1.0.3 Class A
- Ultra-low power consumption
- 2 x DS18B20 Temperature sensors
- Measure range: -55°C ~ 125°C
- Temperature alarm
- Bands: CN470/EU433/KR920/US915/EU868 /AS923/AU915/IN865
- Support Bluetooth v5.1 and LoRaWAN remote configure
- Support wireless OTA update firmware
- Uplink on periodically
- Downlink to change configure
- 8500mAh Battery for long term use
- IP66 Waterproof Enclosure

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## D22-LB

Button & LEDs



## Specifications:

### Common DC Characteristics:

- Supply Voltage: built in 8500mAh Li-SOCI2 battery , 2.5v ~ 3.6v
- Operating Temperature: -40 ~ 85°C

### Temperature Sensor:

- Dallas DS18B20
- Range: -55 to + 125°C
- Accuracy  $\pm 0.5^{\circ}\text{C}$  (max  $\pm 2.0^{\circ}\text{C}$ )

### LoRa Spec:

- Frequency Range, Band 1 (HF): 862 ~ 1020 Mhz
- Max +22 dBm constant RF output vs.
- RX sensitivity: down to -139 dBm.
- Excellent blocking immunity.

### Battery:

- Li/SOCI2 un-chargeable battery
- Capacity: 8500mAh
- Self-Discharge: <1% / Year @ 25°C
- Max continuously current: 130mA
- Max boost current: 2A, 1 second

### Power Consumption:

- Sleep Mode: 5uA @ 3.3v
- LoRa Transmit Mode: 125mA @ 20dBm, 82mA @ 14dBm

## Applications:

- Wireless Alarm and Security Systems
- Home and Building Automation
- Automated Meter Reading
- Industrial Monitoring and Control
- Long range Irrigation Systems,etc.

## Order Info: D22-LB-XXX

XXX: The default frequency band

- XXX: Frequency Bands, options:  
EU433,CN470,EU868,IN865,  
KR920,AS923,AU915,US915