

# LoRaWAN Door Sensor

# DS03A-LB















## **OVERVIEW:**

The Dragino DS03A-LB is a LoRaWAN Door Sensor for Internet of Things solution. It detects door open/close status and uplinks to IoT server via LoRaWAN network. user can see the door status, open duration, open counts in the IoT Server.

The DS03A-LB will send periodically data every 2 hours as well as for each door open/close action. It also counts the door open times and calculates the last door open duration. Users can also disable the uplink for each open/close event, instead, DS03A-LB can count each open event and uplink periodically.

DS03A-LB supports Datalog Feature, it can save the data when there is no LoRaWAN network and uplink when network recover.

DS03A-LB has the Open Alarm Feature, user can set this feature so the device will send an alarm if the door has been open for a certain time.

DS03A-LB is designed for outdoor use. It has a weatherproof enclosure and industrial level battery to work in low to high temperatures.

The LoRa wireless technology used in DS03A-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.

DS03A-LB supports BLE configure and wireless OTA update which make user easy to use.

DS03A-LB is powered by 8500mAh Li-SOCI2 battery, it is designed for long term use up to 5 years.

Each DS03A-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 1.0.3 Class A
- Bands: CN470/EU433/KR920/US915/ EU868/AS923/AU915/IN865
- Ultra-low power consumption
- Door Open/Close detect
- Door open/close statistics
- Datalog Feature, Open Alarm Feature
- Support Bluetooth v5.1 and LoRaWAN remote configure
- Support wireless OTA update firmware
- Downlink to change configure
- Uplink on periodically
- 8500mAh Battery for long term use

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### Specifications:

**Common DC Characteristics:** 

- Supply Voltage: 2.5v ~ 3.6v
- Operating Temperature: -40 ~ 85°C

LoRa Spec:

- Frequency Range, Band 1 (HF): 862 ~ 1020 Mhz, Band 2 (LF): 410 ~ 528 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

### Order Info: DS03A-LB-XX

XX: The default frequency band

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