

# DRAGINO PS-LB-NA LoRaWAN Analog Sensor Owner's **Manual**

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**PS-LB-NA** 

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# **OVERVIEW:**

The Dragino PS-LB-NA is a LoRaWAN Analog Sensor for Internet of Things solution. PS-LB-NA has 5v and 12v output, 4~20mA, 0~30v input interface to power and get value from Analog Sensor. PS-LB-NA will convert the Analog Value to LoRaWAN wireless data and send to IoT platform via LoRaWAN gateway.

The LoRa wireless technology used in PS-LB-NA 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.

PS-LB-NA supports BLE congure and wireless OTA update which make user easy to use.

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

Each PS-LB-NA 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
- Ultra-low power consumption
- 1 x 0~20mA input , 1 x 0~30v input
- 5v and 12v output to power external sensor
- · Monitor Battery Level
- Bands: CN470/EU433/KR920/US915/EU868/
- AS923/AU915/IN865
- Support BLE and LoRaWAN remote congure.
- Support wireless OTA update rmware
- · Uplink on periodically
- · Downlink to change congure
- 8500mAh Battery for long term use

### **Order Info:**

Part Number: PS-LB-NA-XX-YY

XX:

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

#### YY:

• M12: M12 hole

M16: M16 hole

• M20: M20 hole

# Specification:

# **Micro Controller:**

MCU: 48Mhz ARM

• Flash: 256KB

• RAM: 64KB

## **Common DC Characteristics:**

• Supply Voltage: 2.5v ~ 3.6v

• Operating Temperature: -40 ~ 85°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.

### **Current Input Measuring:**

Range: 0 ~ 20mAAccuracy: 0.02mAResolution: 0.001mA

# **Voltage Input Measuring:**

Range: 0 ~ 30vAccuracy: 0.02vResolution: 0.001v

## **Battery:**

• Li/SOCI2 un-chargeable battery

· Capacity: 8500mAh

Self-Discharge: <1% / Year @ 25°C</li>
Max continuously current: 130mA
Max boost current: 2A, 1 second

## **Power Consumption:**

• Sleep Mode: 5uA @ 3.3v

• LoRa Transmit Mode: 125mA @ 20dBm, 82mA @ 14dBm

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### **Documents / Resources**



DRAGINO PS-LB-NA LoRaWAN Analog Sensor [pdf] Owner's Manual PS-LB-NA LoRaWAN Analog Sensor, PS-LB-NA, LoRaWAN Analog Sensor, Analog Sensor, Sensor

# References

• S Dragino :: Open Source WiFi, Linux Appliance

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