

LoRaWAN Air Water Pressure Sensor

PS-LB



OVERVIEW:

The Dragino PS-LB series sensors are **LoRaWAN Pressure Sensor** for Internet of Things solution. PS-LB can measure Air, Water pressure and liquid level and upload the sensor data via wireless to LoRaWAN IoT server.

The PS-LB series sensors include **Thread Installation Type** and **Immersion Type**, it supports **different pressure range** which can be used for different measurement requirement.

The LoRa **wireless technology** used in PS-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.

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

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

Each PS-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
- Ultra-low power consumption
- Measure air / gas or water pressure
- Different pressure range available
- Thread Installation Type or Immersion Type
- Monitor Battery Level
- Bands: CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865
- Support BLE and LoRaWAN remote configure.
- Support wireless OTA update firmware
- Uplink on periodically
- Downlink to change configure
- 8500mAh Battery for long term use

Specification:

Micro Controller:

- MCU: 48Mhz ARM
- Flash: 256KB
- RAM: 64KB

Common DC Characteristics:

- Supply Voltage: 2.5v ~ 3.6v
- Operating Temperature: -40 ~ 80°C

LoRa Spec:

- Frequency Range, Band 1 (HF): 862 ~ 1020 Mhz
- +22 dBm - 100 mW constant RF output vs.
- RX sensitivity: down to -139 dBm.
- Excellent blocking immunity.

Current Input Measuring :

- Range: 0 ~ 20mA
- Accuracy: 0.02mA
- Resolution: 0.001mA

Voltage Input Measuring:

- Range: 0 ~ 30v
- Accuracy: 0.02v
- Resolution: 0.001v

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

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Thread Installation Type



Immersion Type



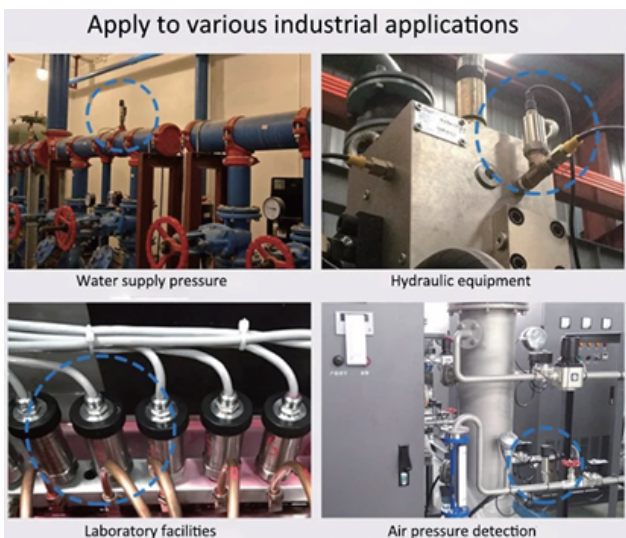
Probe Specification:

- Hersman Pressure Transmitter
- Measuring Range: $-0.1 \sim 0 \sim 60\text{MPa}$, see order info.
- Accuracy: 0.2% F.S
- Long-Term Stability: 0.2% F.S $\pm 0.05\%$
- Overload 200% F.S
- Zero Temperature Drift: 0.03% FS/°C ($\leq 100\text{Kpa}$), 0.02%FS/°C ($> 100\text{Kpa}$)
- FS Temperature Drift: 0.003% FS/°C ($\leq 100\text{Kpa}$), 0.002%FS/°C ($> 100\text{Kpa}$)
- Storage temperature: $-30\text{°C} \sim 80\text{°C}$
- Operating temperature: $-40\text{°C} \sim 80\text{°C}$
- Material : 304 stainless steel
- Connector Type: Various Types, see order info

Probe Specification:

- Immersion Type, Probe IP Level: IP68
- Measuring Range: Measure range can be customized, up to 100m.
- Accuracy: 0.2% F.S
- Long-Term Stability: $\pm 0.2\%$ F.S / Year
- Overload 200% F.S
- Zero Temperature Drift: $\pm 2\%$ F.S
- FS Temperature Drift: $\pm 2\%$ F.S
- Storage temperature: $-30\text{°C} \sim 80\text{°C}$
- Operating temperature: $-40\text{°C} \sim 80\text{°C}$
- Material: 316 stainless steels

Application:



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Order Info:

PS : Pressure Sensor Series Prefix																																												
Wireless Tech: L: LoRaWAN , N : NB-IoT																																												
Battery Type: B: 8500mAH LI-SOIC2 Battery ; S: Solar Panel + Li-on Battery																																												
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