



# Aistin IoT Device

## Sensing The Internet of Things



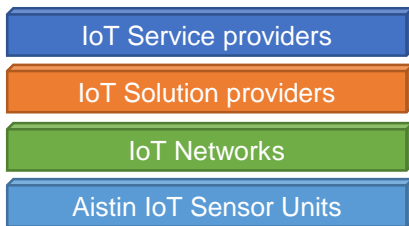
## Differential Pressure

# Aistin IoT Device Differential Pressure

Aistin IoT Devices are available with complete Aistin IoT software ready to use with Aistin Cloud Solution. Aistin IoT Device can also communicate with several Cloud Service providers. Aistin IoT Blue is a low energy wireless IoT device with onboard and external sensors. Aistin IoT Device is available in different component and configuration set-ups depending on the customers case and needs.

The Aistin IoT Device supports Bluetooth 5, LoRaWAN or 4G NB-IoT/CatM1 and provides radio connectivity with its integrated PCB antenna. Smart power control enables long usage times with rechargeable batteries or with primary batteries, from months to several years depending on your application.

The Aistin IoT Device is equipped with versatile sensors integrated onto the same unit



We can provide whole end-to-end IoT system with our Aistin Cloud Services. Aistin IoT Device can also communicate with most IoT Solution providers like MS Azure, Cumulocity, Things Networks and LorIoT.

## USAGE EXAMPLES

The Aistin LoRa Differential Pressure Measurement Unit can be used for versatile application areas where is need to measure differences in the pressure levels i.e. precise air flow.

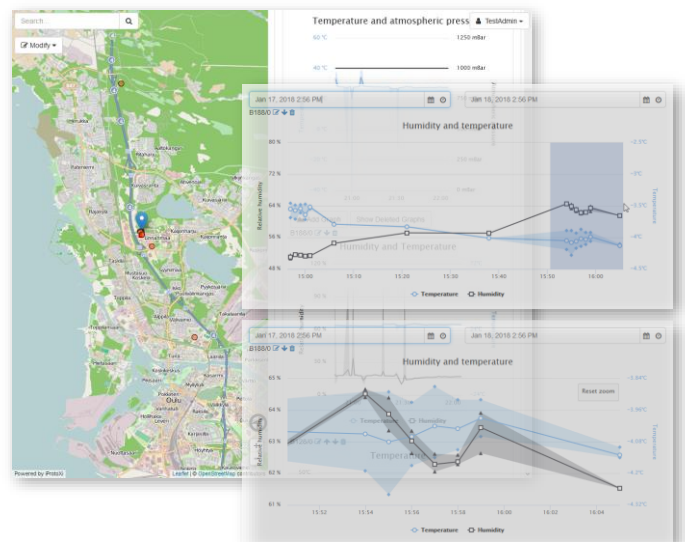
- HVAC (heating, ventilation, air conditioning)
- Filter Monitoring
- Gas boilers, pellet stoves and fuel cells

*Server independent customizable Docker based modular Aistin Cloud Solution allows users to easily monitor and manage IoT devices via internet.*



Aistin IoT Device is available with IP65 (picture above) is with plastic covers.

With the Aistin Sensor Scanner Application, you can read sensor values over the Bluetooth. Local configuration and setup is also possible using the Bluetooth connection.



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### TECHNICAL SPECIFICATION

- ❑ Device Management using cloud services
- ❑ LoRaWAN 868MHz or
- ❑ 4G NB-IoT/CatM1 all bands
- ❑ Bluetooth 5
- ❑ Firmware updating over-the-air
- ❑ Dimensions 101 x 57 x 22/32 mm
- ❑ Operating temperature -25 - +60 °C
- ❑ Powering
  - 3 x 3,6V AA Primary batteries or
  - optional USB chargeable 3000mAh battery
- ❑ Battery life time
  - 5-6 years
    - Operating temperature +20°C
    - Measurement and network connection once in the day in decent coverage
  - ~3 years
    - Operating temperature -20°C
    - Measurement and network connection once in the day in decent coverage
- ❑ 6D-accelerometer/gyroscope
  - Acceleration range of  $\pm 2/\pm 4/\pm 8/\pm 16g$
  - Angular rate range of  $\pm 125/\pm 250/\pm 500/\pm 1000/\pm 2000dps$
- ❑ Humidity
  - Accuracy of  $\pm 1.5 \%RH$  and  $\pm 0.1 ^\circ C$
  - Resolution 0.01 %RH
  - Hysteresis at 25°C  $\pm 0.8 \%RH$
- ❑ Barometer
  - Pressure Range: 300hPa to 1100hPa
  - Relative Pressure Accuracy:  $\pm 0.12hPa(Typ)$
  - Absolute Pressure Accuracy:  $\pm 1hPa(Typ)$
- ❑ Temperature
  - Range -40 - +80 °C
  - Accuracy  $\pm 0.1 ^\circ C$
  - Resolution 0.01 °C
- ❑ Differential air pressure
  - Measurement range  $\pm 500Pa$
  - Zero point accuracy 0.1Pa
  - Span accuracy 3% of reading
  - Resolution 16bit
  - Flow step response time < 3ms
- ❑ Optional sensors
  - GPS/(GNSS)
  - IR laser distance
  - TVOC air quality
  - CO<sub>2</sub>
  - 3D-accelerometer
  - 6D-accelerometer/magnetometer
  - Structural humidity sensor