DRAGINO

NB-IoT None Conct Liquid Level Sensor

NDDS20

OVERVIEW:

The Dragino NDDS20 is a NB-IoT Ultrasonic liquid level sensor for Internet of Things solution. It uses non contact method to measure the height of liquid in a container without opening the container, and send the value to IoT Server via NB-IoT network.

The NDDS20 sensor is installed directly below the container to detect the height of the liquid level. User doesn't need to open a hole on the container to be tested. The non contact measurement makes the measurement safety, easier and possible for some strict situation.

NDDS20 uses ultrasonic sensing technology for distance measurement. NDDS20 is of high accuracy to measure various liquid such as: toxic substances, strong acids, strong alkalis and various pure liquids in high-temperature and high-pressure airtight containers.

NarrowBand-Internet of Things (NB-IoT) is a standards-based low power wide area (LPWA) technology developed to enable a wide range of new IoT devices and services. NB-IoT significantly improves the power consumption of user devices, system capacity and spectrum efficiency, especially in deep coverage.

NDDS20 supports different uplink methods include TCP, MQTT, UDP and CoAP for different application requirement.

NDDS20 is powered by 8500mAh Li-SOCI2 battery, It is designed for long term use up to 5 years. (Actually Battery life depends on the use environment, update period & uplink method)

To use NDDS20, user needs to check if there is NB-IoT coverage in local area and with the bands NDDS20 supports. If the local operate support it, user needs to get a NB-IoT SIM card from local operator and install NDDS20 to get NB-IoT network connection.

Features:

- NB-IoT None Contact Liquid Level Measure
- Ultro low power consumption
- Liquid Level Measure by Ultrasonic technology
- Valid range 20mm - 2000mm
- High capacity 8500 mAh Li-SOCI2 battery

- NB Bands: B1/B3/B8/B5/B20/B28
- Uplink via MQTT,TCP,CoAP or UDP
- AT Commands to change parameters
- Uplink on periodically
- IP66 Waterproof Enclosure

Specifications:

NB-IoT Module:

- NB Module: Quectel BC95-G
  - B1 @H-FDD: 2100MHz
  - B3 @H-FDD: 1800MHz
  - B8 @H-FDD: 900MHz
  - B5 @H-FDD: 850MHz
  - B20 @H-FDD: 800MHz
  - B28 @H-FDD: 700MHz
- Protocol: CoAP, UDP, MQTT, TCP

Part Number - NDDS20