



Water Quality Monitoring Unit

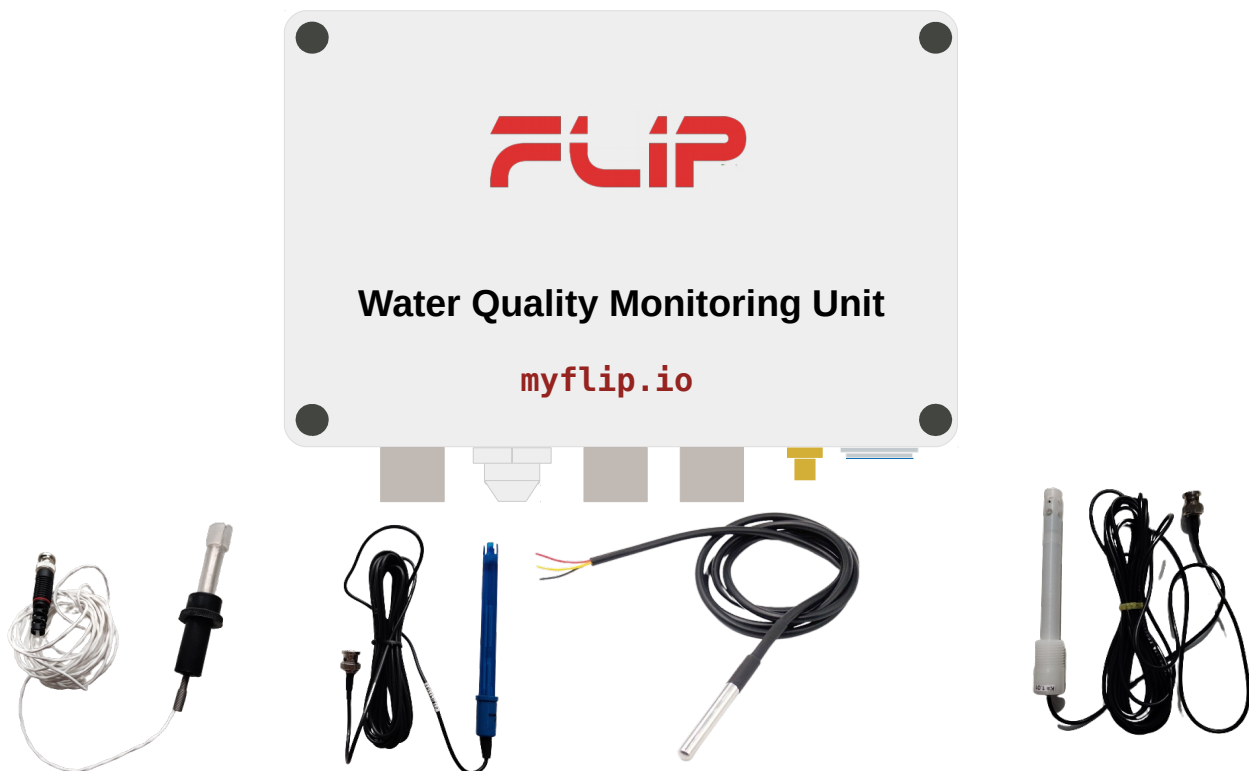
Features and Technical Specification

Date: 31-12-2021

Status: Released

Version: 3.0.1

Water Quality Monitoring Unit



The FLIP-WQMU measures pH, DO and TDS/EC temperature and sends the data to cloud.

Features

- Weatherproof and rugged IP65 housing
- User Interface
FLIP software for setup configuration
Indication: Ring LED Switch (Power/Network)
- Internal Battery to run more than 3 weeks with out charge
- Solar panel setup for charging
- Cummmunication: TCP/UDP, HTTPs and MQTT
- Data reading frequency set as units of 15 minutes
- Optional GPS
- Easy sensor interface options with SP-16/PG9 connectors versions
- Available in Cellular(2G/3G/4G) / NB-IoT / LoRa versions
- Can be used in both handheld and online

Specifications

Sensors

pH Sensor

Range: 0 to 14 pH continuous

Resolution: 0.01 pH

Accuracy: + 0.02 pH (relative)

Repeatability: + 0.01 pH

Input Resistance: 1014 ohms

Stability: + 0.01 pH after warm up



TDS/Conductivity Sensor

Range: 0-200mS

Resolution: 0 .001uS

Operating Temperature : 0 to 70 °C

Accuracy: 0.5% of full scale



Temperature Sensor(DS18B20)

Range: -55 ~ 125 °C

Accuracy: ±0.5 °C

Operating Temperature -10 °C to +85 °C



DO Sensor(Polarographic)- Handheld

Range: 0-20ppm

Resolution: 0.1ppm

Operating Temperature: 0 to 50 °C

DO Element Replaceable

Diameter:15 mm

Size: 115mm

Calibration: On each powerON in specific solutions



DO Sensor(Galvanic)

Range: 0-50ppm

Resolution: 0.1ppm

Operating Temperature: -5 °C to 50 °C

DO Element Replaceable

Diameter:15 mm

Calibration: To be calibrated between 3-4 weeks of normal use

Device

Microcontroller

STM32 32-bit ARM Cortex MCU

Connectivity

Quectel EC2x - LTE CAT1 - LTE and GSM/GPRS/EDGE with SIM Holder

Power

9-12V 1A Input from Solar Panel or Adaptor

2600/5200mAh Li-Ion battery

Connectors

Plug type IP68 or Standard PG9

Antenna

Stick or screw antenna with SMA connector

Indication

Power button with LED

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