



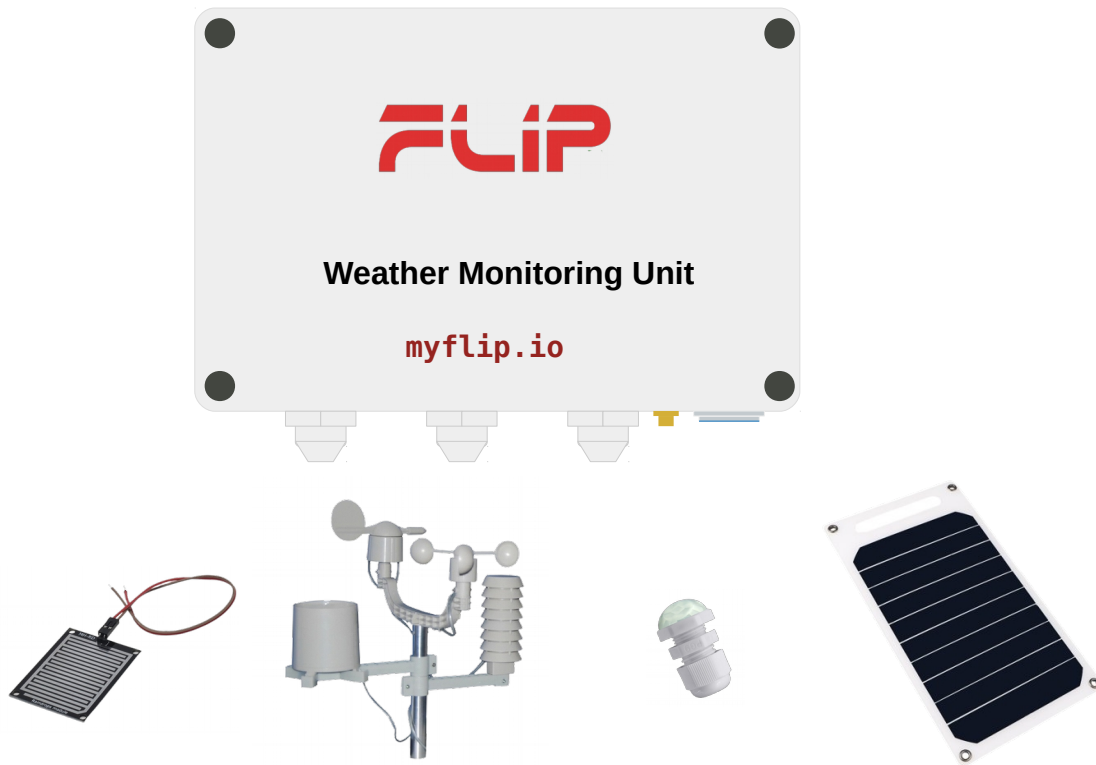
# Weather Monitoring Unit

## Features and Technical Specification

Date: 31-12-2021  
Status: Released  
Version: 3.0.1

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# Waether Monitoring Unit



The FLIP-WMU measures ambient temperature, relative humidity, air pressure, wind speed, wind direction, measure rainfall, leaf wetness, and luminosity 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

# Specifications

## Sensors

### Ambient Temperature and Relative Humidity with Air Pressure(SHT3x and BMP280)

Temperature range:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  | Accuracy:  $\pm 3^{\circ}\text{C}$

Pressure Range: 300 to 1100 hPa | Accuracy:  $\sim \pm 1$  hPa

Humidity: 0-100%RH | Accuracy:  $\pm 2\%$ RH

### Anemometer

Sensitivity: 2.4km/h / turn

Wind Speed Range: 0 ~ 240km/h

### Wind Vane

Maximum accuracy:  $22.5^{\circ}$

### Rain Bucket

Bucket capacity: 0.28 mm of rain

### Leaf wetness

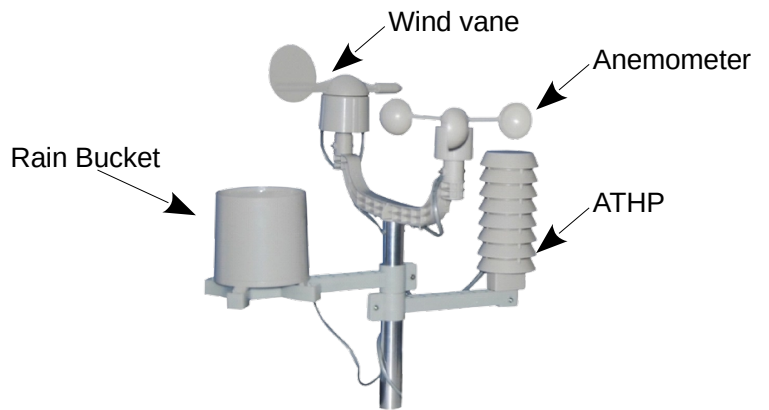
Resistance Range: 5 k $\Omega$  ~  $>2$  M $\Omega$

Output Voltage Range: 1 V ~ 3.3 V

### Lux sensor

Luminosity Range: 0-300000 lx

Resolution: 0.0036 lx



## 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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