

LPWAN Meteorological Station

PRODUCT DESCRIPTION

The LPWAN Weather Station is designed for weather monitoring and smart agriculture projects that necessitate consistent measurement of meteorological conditions. This device is modular and can be outfitted with a range of sensors, offered in two distinct configurations: dedicated weather station or fully scalable advanced logger with outstanding digital interfaces connectivity . The weather station is compatible with LPWAN standards, currently supporting LoRaWAN, and NBIoT.

SENSORS

- Air temperature
- Air relative humidity
- Air pressure
- Rain gauge
- Wind velocity
- Wind direction
- Leaf moisture
- PAR or soil moisture sensors upon request

USAGE

- Assessment of indoor temperature and relative humidity
- Rainfall Volume – Irrigation Optimization
- Meteorology – atmospheric models
- Intelligent agricultural frameworks
- Monitoring prolonged meteorological trends



FEATURES	PARAMETERS
Housing	IP65/IP68 in radiation protection
Power source	3.6V lithium battery LS33600/17000mAh
Energy usage	<3.5 μ A in deep sleep / 80 mA transmissions (LoRaWAN) / 5000 mA (NBIoT)
Battery industry	approximately 120,000 transfers
Supported LPWAN Standards	LoRaWAN, NB-IoT (one of the standard upon order)
Dimensions standard/radiation shield	107 x 65 x 33 mm / 180 x 95 mm
Interfaces	SDI-12, RTU ModBus, 1Wire, ADC 16bits, digital I/O, integration of 3rd party sensors upon request
Temperature, humidity, and air pressure sensor	SHT31 - T accuracy: $\pm 0.5^{\circ}\text{C}$; RH accuracy: $\pm 3\%$; range: -40 to 85°C ; 0 to 100% RH; DPS368 pressure sensor 300 to 1200 hPa, accuracy ± 0.002 hPa.
Rain gauge	Spoon tip bucket
Leaf moisture	Meander resistance / 100 to 65k ohms
Wind speed and direction	0 to 150 km/h (pulse meter, 1 pulse = 2.4 km/h) / 8 directions
Antenna / standard range	Helical, 2dBi gain / 45 to 110 km contingent upon LPWAN technology