

Technical Specification

Processor	Quad Core ARM Cortex
Memory	2GB RAM / 8GB eMMC ROM
Device Interface	On-device Software / API
Operating Temperature	-20 °C to 60 °C
Operating Humidity	0-95% RH

Communication

Data Interval	2-30 minutes (configurable)
Data-push Protocol	HTTP post request to host-server
Data-pull	HTTP request on device IP
Firmware Updates	Over-The-Air Firmware Update
Standby Connectivity	GSM (2G/3G) for remote diagnosis, FOTA updates, and cloud calibration

Power

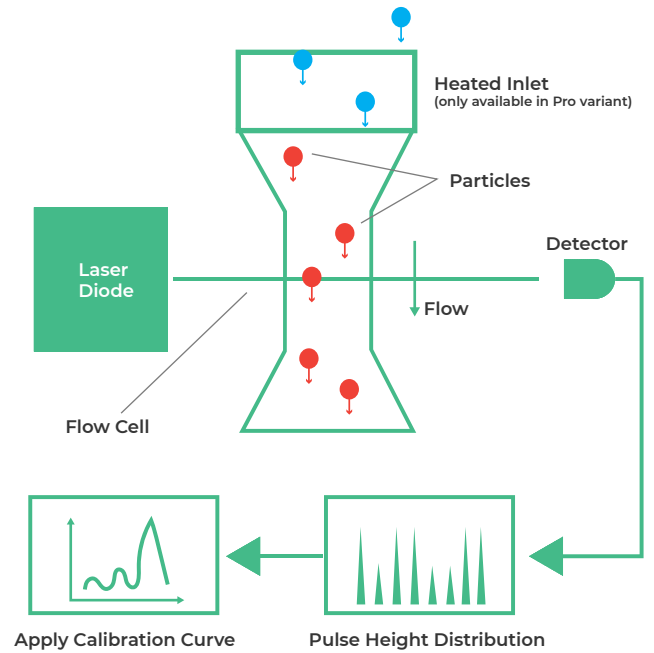
Avg. Power Consumption	5 Watt (Actual consumption depends upon the number of parameters)
Power Input Options	External 110-230V AC 50-60Hz, 40Watt Monocrystal Solar Panel
SMPS Specs	24V, 2Amps output UL-62368 & CAN/CSA C22.2 Certified
Battery Backup Time	12 Hours (not available in Pro variant)
Battery Specs	Lithium iron phosphate (LiFePO4) battery cell with rated voltage 12.8V Capacity 6Ah

Parameters

ID	Parameter	Range	Resolution	Min. Detection	Drift	Working Principle	Measurement Principle	Flow Rate	Expected Sensor Life
OZPM_1	Suspended Particulate Matters with size less than 2.5 μ (PM _{2.5})	0-5000 μ g/m ³	0.1 μ g/m ³	1 μ g/m ³	N.A.	Optical Particle Counter	Continuous Flow Active Monitoring	1 L/min	5000 hours
OZPM_2	Suspended Particulate Matters with size less than 10 μ (PM ₁₀)								
OZPM_3	Ultra-fine Particulate Matters with size less than 1 μ (PM ₁)								
OZPM_4	Total Suspended Particulates (TSP)	0-30 mg/m ³							
OZTEMP_1	Temperature	-40 °C to +125 °C	0.01 °C	-40 °C	N.A.	Solid State Semiconductor Sensing	Passive Monitoring	N.A.	2 years
OZHUM_1	Humidity	100% Rh	0.1 %	0.1 %	N.A.				
OZPRES_1	Barometric Pressure	300-1100 hPa	0.18 Pa	300 hPa	N.A.				

Connectivity Options		Specification
Wireless	GSM	Global 2G / 3G / 4G 868 MHz / 915 MHz CAT-M1 CAT-NB1 868 to 869 MHz, 902 to 928 MHz AP Mode and Station Mode
	LORA	
	LTE	
	NB-IoT	
	Sigfox	
Wired	Ethernet Modbus Relay Output	Static / DHCP Configuration RS485 RTU / TCP 2 Channel

Working Principle



External Modules (optional)

1 **Rain Sensor**

- Tipping Bucket
- In mm / inch

2 **Wind Sensor**

- Ultrasonic sensor
- 360°, 0-40 m/s

3 **Noise Sensor**

- Capacitance
- Upto 140 dB

ID	Parameter	Range	Resolution	Min. Detection	Working Principle	Expected Sensor Life
OZWSD_1	Wind Speed	0-40 m/s	0.1 m/s	0.1 m/s	Ultrasonic	3 years
	Wind Direction	0-359°	1°	1°		
OZRAIN_1	Rainfall Monitoring	N.A.	0.5 mm	0.5 mm	Tipping bucket	
OZN_1	Ambient Noise	Up to 140 dB	1 dB	0.5 dB	Capacitive	2 years