Dustroid® Variants

Variants	Applications	Parameters
Dustroid® Smart	Urban monitoring and research	PM_1, $PM_{2.5}$, PM_{10}, PM_{100} (TSP), Temperature, Humidity
Dustroid® Pro *(with heated inlet)*	Mining, construction, industrial monitoring (for high humidity regions)	PM_1, $PM_{2.5}$, PM_{10}, PM_{100} (TSP), Temperature, Humidity
External Modules	Optional	Wind Speed and Direction, Rainfall, Noise (integrable with both the variants)

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 2.5µ ($PM_{2.5}$)	0-5000 µg/m^3	0.1 µg/m^3	1 µg/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 10µ (PM_{10})								
OZPM_3	Ultra-fine Particulate Matters with size less than 1µ (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.				

Note - If a custom range and resolution of a sensor is required, please contact our team.

External Modules (optional)

Rain Sensor
Tipping Bucket
In mm / inch

Wind Sensor
Ultrasonic sensor
359°, 0-40 m/s

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