Met One Instruments

POWERED BY ACOEM

ES-808 SCAMP

System Contamination And Meteorological Platform

The ES-808 SCAMP is a near reference air quality monitoring system from Met One Instruments Powered by Acoem designed to provide accurate real-time measurements of PM_{10}, and $PM_{2.5}$, Wind Speed, Wind Direction, Ambient Temperature, Barometric Pressure, Relative Humidity, and Carbon Monoxide simultaneously.

It is designed to support Prescribed Burning and Fuels reduction / mitigation, but versatile enough to support many other applications.

Product Details

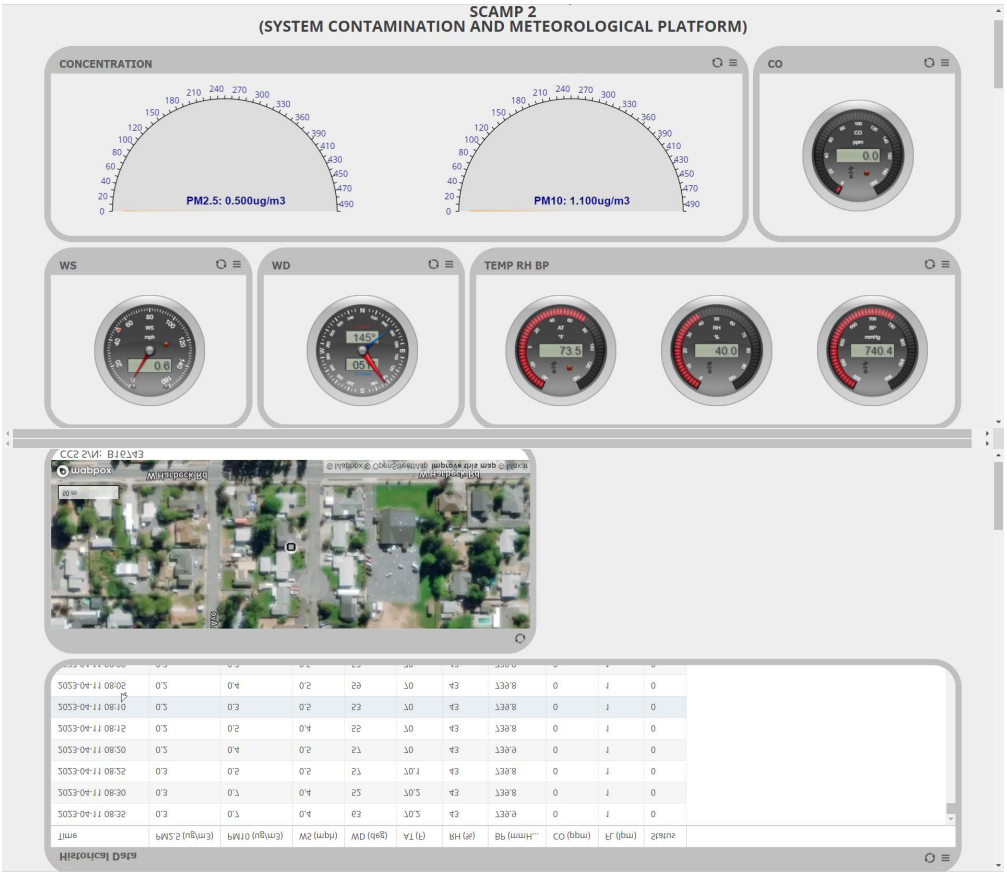
This unit reports two key particulate concentrations, five key meteorological data points, as well as Carbon Monoxide measurements in both indoor and outdoor environments. The rugged weatherproof enclosure allows it to be used in the toughest environments for reliable continuous outdoor operation. The Particulate Monitoring sensor incorporates sheath air to prevent particles from contaminating the internal optics of the sensor.

All ES-808 SCAMP Measurement Systems are manufactured at an ISO-9001 facility. Calibrations are performed to NIST traceable standards.

Data output can be configured as fast as 5 minutes or with longer averaging intervals (15 or 30). Send data directly to the cloud for remote download and analysis with on-board CCS Modem. Accessible with remote computer or mobile phone.

Applications

- Prescribed Burning area assessment.
- Weather and Emissions modeling.
- Natural Disaster aftermath monitoring.
- Near-Roadside monitoring.
- Fuels Reduction/Mitigation studies.
- Obtain Localized Particulate Data for Community Health and Policy.
- Environmental Clean-up sites.



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Standard accessories

- Power Supply / Battery Charger.
- EX-905 Tripod.

Optional accessories

- Solar Panel for extended remote monitoring.
- Hard sided Transport case.

Specifications

PM Parameters

Measurement principles:	Right angle light scatter detection, using a laser diode as light source.
Number of mass channels:	2 ($PM_{2.5}$ and PM_{10})
Sample air flow rate:	1.0 LPM
Sheath air flow rate:	1.0 LPM
Flow control:	Active Volumetric Flow Control
Data storage resolution:	0.1 µg/m³
Laser type:	Diode Laser, 100 mW, 785 nm.
Pump type:	Brushless Diaphragm Pump.
power supply:	Universal 100-240 VAC input, 50/60Hz. Optional regulated 24VDC.
Power consumption:	3.5 amps during full battery charge and 0.25 amps average continuous
Operating temperature:	32 to +122° F
Storage temperature:	-4° to +140° F
Ambient humidity range:	0 to 95% RH, non-condensing.
Gps:	External GPS module included.
Network compatibility:	LTE-M (U.S. Domestic)
Data update rate to cloud:	Standard: USA: 5 Minute - Optional: 1, 5, 15 or 30.
Data storage on cloud:	2 Years (oldest data overwritten after that)
Compatible software:	Comet™, terminal programs such as HyperTerminal®
Factory service interval:	12 Months typical, under continuous use in normal ambient air.
Mounting options:	Pole mount bracket standard. EX-905 tripod included.
Unit weight:	23 lbs.
Unit dimensions:	Height: 21" Width: 10.5" Depth: 10.5"

AIO 2 Parameters

Wind speed operating range:	0 to 168 mph (0 to 75 m/s)
wind speed calibrated range:	0 to 134 mph (0 to 60 m/s)
Wind speed accuracy:	1.1 mph (±0.5 m/s) or 5% of reading (whichever is greater)
Wind speed resolution:	.1 mph or m/s
Wind direction range:	0 to 360 degrees
Wind direction accuracy:	±5° (including Compass)
Wind direction resolution:	1.0°
Alignment compass accuracy:	±2°
Alignment compass resolution:	1°
Temperature accuracy:	±0.36 °F from 32 to 122 °F
Temperature resolution:	0.1 °F
Relative humidity accuracy:	±3% @ 77 °F
Relative humidity resolution:	1.0%
Barometric pressure range:	500 to 1100 hPa (mbar) (14.76 - 32.48 inHg)
Barometric pressure accuracy:	±0.5 hPa @ 77 °F
Barometric pressure resolution:	0.1 hPa
Measurement rate output:	1 Hz

CO Parameters

Sample gas type:	Carbon Monoxide (CO)
gas concentration range:	0-250 PPM
Gas sensor type:	Electromechanical
Enclosure water resistance:	Weather Resistant (when installed properly)
Communication type:	RS-485
Detector life expectancy:	7 years

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