ES-412

PORTABLE
SIMULTANEOUS
PARTICULATE PROFILER

TWO SIMULTANEOUS PM MEASUREMENTS IN ONE MONITOR

REAL TIME PM$_{2.5}$ & PM$_{10}$

Introducing the newest addition to the Met One Instruments, Inc. line of Non-Regulatory Supplemental & Informational Monitors (NSIM), the ES-412 Portable Simultaneous Particulate Profiler. As a Near-FEM (Federal Equivalent Method) product, the ES-412 provides the quality and day-to-day stability consistent with EPA quality objectives. This lightweight Particulate Profiler offers wireless, remote PM monitoring in a low profile, field deployable, weatherproof unit that measures both PM$_{2.5}$ and PM$_{10}$ simultaneously.

Set up with ease for either temporary quick deployment or permanent installation, and have instant access to data on your smart phone, tablet, or computer. Data from the ES-412 is backed up internally and then transmitted to a nearby cell tower every 15 minutes. In the event of cell tower communication loss, the ES-412 will attempt communication continuously until it is regained. When this occurs, the ES-412 will transmit all missing data when communication is re-established, providing data security.

- RAPID DEPLOYMENT
- INTEGRATED GPS
- HANDLE DOUBLES AS MOUNTING BRACKET
- AUTOMATICALLY CONNECTS TO LOCAL CELLULAR PROVIDER

Transmitted data contains 15-minute averages for $PM_{2.5}$ and PM_{10} along with information on device power, flow, and internal diagnostics. Additionally, your custom web page dashboard offers a map showing where the unit is located with an internal GPS module. The ES-412 is a system that comes complete with cellular communications, a customized web page dashboard, a 3-year data plan, and an AC power supply.

UP & OPERATIONAL WITHIN MINUTES

1.EXTEND & SECURE TRIPOD LEGS.

2.REMOVE ES-412 FROM TRAVEL CASE & EXTEND FOLDING ANTENNA FROM THE HANDLE. LOCK IN PLACE.

3.MOUNT THE ES-412 ON TRIPOD. SECURE WITH LOCKING BOLT.

4.PLUG POWER CORD INTO RECEPTACLE IN THE BASE. POWER ON.

5.ES-412 PROFILER WILL BEGIN SAMPLING, WITH THE FIRST DATA SET TRANSMITTING TO YOUR COMPUTER IN 15 MINUTES.

ES-412 PORTABLE SIMULTANEOUS PARTICULATE PROFILER

FEATURES

- RemoteData– Locally Available on Personalized Web Page
- Easy, Unlimited Data Sharing
- Real Time Sensor Status
- Plug & Play – Internal Modem is Factory Configured & Activated
- Global Connectivity with 550+ Carriers
- Initial 3-Year Data Plan Included (est. Value $500)

- Pre-Packaged in an IP64 Enclosure
- Free Data Collection and Analysis Software
- Power Supply & Cables Included
- Folding Antenna for Compact Storage
- Lightweight, Very Transportable.
- Rapid Deployment

EFFORTLESS DATA AT YOUR FINGERTIPS

TYPICAL DASHBOARD DATA PAGE

OPTIONAL ACCESSORIES

- Tripod Mobile **Battery** Power
- **Supply Solar Charging Panel**
- **for Extended Operation.**

CONTACT OUR SALES TEAM TODAY FOR A QUOTE:

SALES@METONE.COM

Parameter

Operation	Right angle light scatter detection using a laser diode as light source. 0.1 μg/m3
Measurement Resolution	
Number of Mass Channels	2 (PM2.5, PM10)
Data Storage Intervals Sample	1, 5, 10, 15, 30, or 60 minutes
Air Flow Rate Sheath Air Flow Rate	1.0 LPM
	1.0 LPM
Flow Control Communications	Active volumetric flow control
Connections Operating	USB
Temperature Storage	0° to +50° C
Temperature Ambient	-20° to +60° C
Humidity Range	0 to 95%, non-condensing

Electrical	
Power Supply	Universal 100-240 VAC input, 50/60Hz.
Power Consumption	12 VDC. Max operating current 1400mA.

Interface	
Communication	Built-in CCS modem, Verizon™ 4G LTE (U.S. Domestic) GSM (Internationally with Over 550 Networks) Terminal Command Set, MOI 7500 Protocol 3 years included
Communications Protocol	
Data Plan	

Physical	
Weight	9.5 lbs. with power supply (4.31 kg)
Dimensions	5.125 in. Wide x 31 in. Height x 8.25 in. Depth (13cm x 79cm x 21cm)

SUPPLIED ACCESSORIES

- Operator's Manual
- Calibration Certificate (NIST)
- Power Supply
- Software Available from Website

Specifications are subject to change at any time.