

NPM 2 Neighborhood Particulate Monitor

Met One Instruments' NPM 2 is a forward light scatter laser nephelometer particulate monitor which automatically measures real-time airborne TSP, PM₁₀ or PM_{2.5} particulate concentration levels.

The NPM 2 features our robust, patented, Pump-In-A-Box with improved reliability and lower maintenance. Each NPM 2 uses a serial cable that allows the device to connect to a laptop, data logger or CCS Modem 2 where the real-time data is available for display and logged for review and reporting at a later date.

The monitor contains a 5 mW diode laser operating at 670 nm wavelength. A protective optical housing fully encapsulates the laser beam and optics system within the device. Data from the NPM 2 can be managed using the supplied copy of Met One Instruments' user-friendly, Windows-based, Comet™ communications terminal software. Comet allows the user to view real-time data and log data to a data file on a computer in .csv (comma separated values) format.

The NPM 2 is calibrated using 0.6 micron latex micro-spheres. These provide an extremely consistent calibration, but do not generally match the characteristics of all ambient particulate. A K Factor (multiplier) must be established, by using a collocated trusted reference source (such as a BAM 1020) for good accuracy and correlation. The default factory K Factor is 1.0. The K Factor is only valid at the same site and for the same particulate type. If the local particulate source changes, the K Factor may need to be adjusted. The unit is supplied with TSP head, Comet CD, mounting bracket & hose clamps.



Features:

- Nephelometer Measurement
- New Improved, Patented Pump-In-A-Box
- Rapid Deployment
- Plug & Play Operation
- CCS Cloud Compatible
- Cloud Data Available on any Smart Device
- Cost Effective for Networks

Specifications

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Measurement Range:	0 to 100 mg/M ³ (0 to 100,000 mg/M ³).
Measurement Sensitivity:	0.001 mg/M ³ .
Nephelometer Accuracy:	± 5% traceable standard with 0.6um PSL.
Particle Size Sensitivity:	0.1 to 100 microns. Optimal sensitivity 0.5 to 10 micron particles.
Long Term Stability:	5% with clean optics.
Laser Type: Diode Laser,	5 mW, 670 nm. Visible red.
Flow Rate:	2.0 liters/minute
Pump Type:	Brushless pump (sample) brushless fan (purge)
Power:	Input: 12 VDC ± 0.25 V Consumption: 580 mA peak (no heater) 1.4 A peak (with heater) @ 12 VDC.
Temperature:	Operating 0 to +50°C . Storage -30 to +50°C.
Humidity Range:	0 to 90% RH, non-condensing.
Humidity Control:	Automatic 12-Watt inlet heater module controlled to sample RH, with set point.
Factory Service Interval:	24 Months typical, under continuous use in normal ambient air.
Mounting Options:	Pole mount bracket standard. Optional mounting tripod.
Unit Weight:	2.7 kg (6 lbs.)
Unit Dimensions:	48.5 cm high, 41.9 cm wide, 17.8 cm deep (23" x 16.5" x 7")

Specifications are subject to change at any time.

Accessories

- Serial & Power Cable NPM 2 to Logger P/N 82905
- Serial & Power Cable NPM 2 to CCS Modem 2 P/N 82906
- Weather Proof Power Supply P/N 9438-4
- Purge Air Pre-filter 47 mm field replaceable filter (Box of 100) P/N 460121
- Sharp Cut PM2.5 P/N SCC 112
- Sharp Cut PM10 P/N SCC 110
- Tripod P/N 905



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