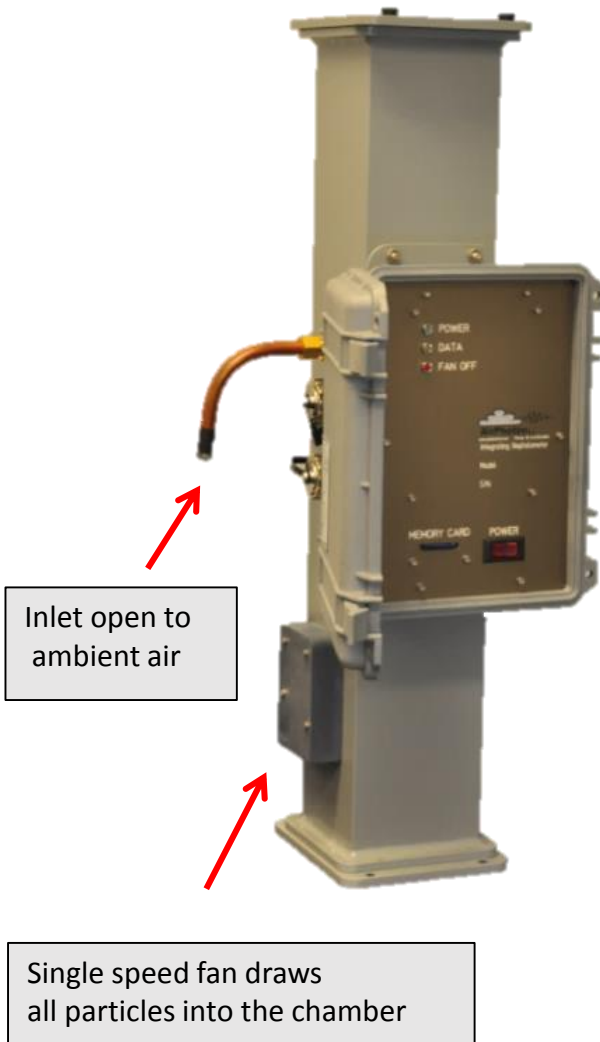


Basic Integrating Nephelometer (IN101)

The AirPhoton 3-wavelength Integrating Nephelometer measures the light scattered by particulate matter, over the angular range 7 to 170°. Employing an innovative design, the forward and backward scattering measurements are made completely independently. LED technology allows the nephelometer to make these measurements at 450 nm, 532 nm and 632 nm, and to a sensitivity $< 10^{-7} \text{m}^{-1}$. Internal sensors measure and log temperature, relative humidity and pressure.

Small and compact, the 3-wavelength Integrating Nephelometer is enclosed in an environmentally protected case, ready for outdoor deployment in rugged conditions. Power requirements are 15W @ 120 VAC and input power options include: 110/220 VAC, 50/60Hz with provided power supply, and regulated 12VDC from sampling station with provided power connector. Other powering options can be made available upon request such as operating from batteries or solar power. Optional heaters are available at the expense of additional power consumption. Data from the AirPhoton IN101 Integrating Nephelometer is saved in a removable SD memory card and can be linked to an external computer via RS485 using accessories available from AirPhoton.



Integrating Nephelometer Specifications (IN101)

- Dimensions: 9" x 10" x 24"
- Mass: 6.7 Kg
- Power requirements: 15W @120VAC
- Light source: LED
- Operating temperature: -30 to +45°C
- Optional external pump
- Wavelengths: 450, 532, and 632 nm
- Angular range: 7 to 90° ; 90 to170°
- Full scattering = forward + back scattering
- Standard range: 0.0-3,000Mm⁻¹
- Extended range: 20,000Mm⁻¹ (upon request)
- Lower detectable limit: <0.15 Mm⁻¹ (at 60 sec AVG)
< 0.06 Mm⁻¹ for Backscattering (60 sec AVG)
- Clean air reference option provides automatic zero for span calibration
- Data Interfaces: 4GB SD card, RS485 (optional)
- Syncs to AeroExplorer filter sampling station.
- Environmentally rugged. No need for enclosure.