

# IN102 | AirPhoton Size Scanning Nephelometer

The IN102 nephelometer is a highly accurate instrument built to rugged standards that allows for field deployment under a wide range of conditions. Using a cyclone inlet and our feedback flow control system, it can collect and analyze particles in multiple size ranges (PM2.5 and PM10) making this especially useful for air quality studies.



## Capabilities

- Forward and Back Scatter measurements
- Three wavelengths
- High Speed fan
- Feedback Flow control system
- Multiple Size Cuts

## Suggested use

High precision measurements for various size cut-offs under all conditions for air quality and health and climate applications.

## Specifications

- Dimensions: 9" x 10" x 24"
- Mass: 6.8 Kg
- Operating temperature: -30 to +45°C
- Wavelengths: 450, 532, and 632 nm
- Angular range: 7° to 90° ; 90° to 170°
- Full scattering = forward + back scattering
- Standard range: 0.0-3,000 Mm<sup>-1</sup>
- Extended range: 20,000 Mm<sup>-1</sup> (upon request)
- Lower detectable limit:
  - <0.15 Mm<sup>-1</sup> (at 60 sec AVG)
  - < 0.06 Mm<sup>-1</sup> for Backscattering (60 sec AVG)
- Time resolution: 15 sec standard - 1 sec minimum
- Sensitivity: < 0.1 Mm<sup>-1</sup>
- Clean air reference option provides automatic zero for span calibration
- Data Interfaces: 4GB SD card (possible up to 32GB), RS 485, and USB