Integrating Nephelometers

CuraTerrae

Model IN102Ex

Particulate Characterization

With GRASP Inversion Software:

- PM 2.5 Particle Mass
- Size Distribution

Robust Low Power System for Remote Deployment

Fully Programmable Sampling By Time:
– Hourly, Daily, Weekly

Remote Data Download & Sample Scheduling

Capabilities

- Forward and Back Scatter Measurements
- Three Wavelenghts
- High Speed fan
- Feedback Flow Control System
- Multiple Size Cuts

Deployed globally
SPARTAN Network

SPARTAN
Global Particulate Matter Network

ACTRIS

Approved for use by
ACTRIS Network

AirPhoton Nephelometers

Specifications

- Dimensions: 9'' x 10'' x 24”
- Mass: 6.8 Kg
- Operating temperature: -20 to +40°C
- Wavelengths: 450, 529, and 632 nm
- Angular range: 7° to 90° ; 90° to 170°
- 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) Total Scattering
  < 0.06 Mm^{-1} for Backscattering (60 sec AVG)
- Clean air reference option provides automatic zero for span calibration
- Data Interfaces: SD card, RS485, USB, RS232

Summary of capabilities by model

Forward & Back Scatter Measurement	Three Wavelenghts	High Speed Fan	Feedback flow control system	Multiple Size Bins	Determine Size Distribution	Suggested use
■	■	■				IN101T: Measurements of all particle sizes at normal ambient conditions as well as for situations where higher pressure intake is required – i.e. high altitudes, clean condition or long inlet tubes –.
■	■	■	■	■		IN102: High precision measurements for various size cut-offs under all conditions for air quality & health and climate applications.
■	■	■	■	■	■	IN102Ex: High precision measurements for various size cut-offs under all conditions for air quality & health and climate applications with ability to obtain size distribution.