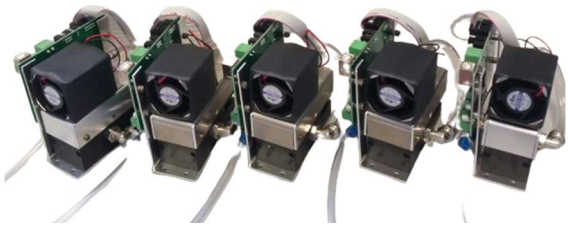


# O.E.M. PM Sensor

For entry level Particulate Matter laser scattering measuring devices

**Product highlights**

Cost effective laser scattering sensor

Easy to integrate in O.E.M. systems

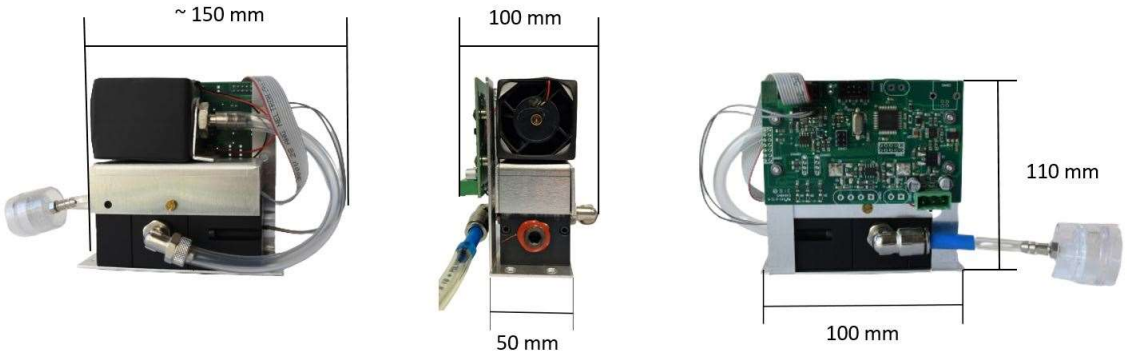
Porous filters for PM class selection

**Application**

Sensor networks for distributed Environmental Monitoring

Portable Instrumentation

## Mechanical dimensions



## Operative Data

| | |
|---|---|
| **Sensor type** | Laser scattering Optical Cell |
| **Detected Particle size** | PM2.5 or PM10 |
| **Measuring range** | 0 – 1000 or 0 – 10000 µg/m$^3$ |
| **Operating temperature range** | 0 ÷ 55 °C (non-condensing) |
| **Storage temperature range** | -20 ÷ 85 °C |
| **Operating humidity range** | 0 ÷ 90 % (non-condensing) |
| **Air flow** | Internal vent |
| **Warm-up time** | < 60 s |

## Mechanical & Electrical Specifications

| | | |
|---|---|---|
| **Dimension (L x W x H) - maximum** | 150mm x 100mm x 110mm | |
| **Gas connector** | Rapid fitting for 8 mm o.d. tubing | |
| **Voltage supply** | Laser and Vent<br>Electronics | 12 V (± 10%) d.c.<br>5 V (± 10%) d.c. |
| **Power consumption** | Laser and Vent<br>Electronics | < 2 W (average)<br>< 0.5 W (average) |
| **Signal Output** | Digital (ASCII) | |
| **Communication Interface** | UART (Baud-rate: 9600-115200) | |

# Measuring Specifications

| | |
|---|---|
| **Measuring interval** | 1 ÷ 600 s |
| **Maximum PM range** | 10000 µg/m$^3$ |
| **PM accuracy** | <1% full scale |
| **PM measurement resolution** | 1 / 4096 of full scale |
| **Available temperature Pressure and relative** | **Humidity Measurements** |
| **Resolution / Accuracy** | T (0.01 °C / 0.3 °C)<br>P (0.01 kPa / 0.5 kPa)<br>rH (0.04 % / ±2 %) |