



The WHO has declared that inhalable particulate matter (PM) affects more people worldwide than any other pollutant, causing asthma, cardiopulmonary diseases, and lung cancer among others.

PM10 typically comes from pollen, smoke, road dust, and construction, while PM2.5 and PM1 are fine and ultra-fine air particles associated with car emissions, fuel burning, and industrial sites. Because they are small enough to penetrate deeply into the lungs and bloodstream, they present even a greater risk to the most vulnerable population such as pregnant women, children, the elderly, and people with existing respiratory diseases.

Aerys P tracks PM10, PM2.5 and PM1 for a better understanding and insight of particulate matter density in our communities.

It can be placed anywhere, especially at sensitive and highly populated.

Dimensions

640 x 220 x 220 mm

Weight

10 kg

IK rating

IK08

Materials

fiberglass, ABS, hot-dip zinc coated steel (EN10346), galvanized low carbon steel (ISO 2081)

Operating temperature

-20°C to 50°C

Operating Humidity

(RH) 0-100%

Environment

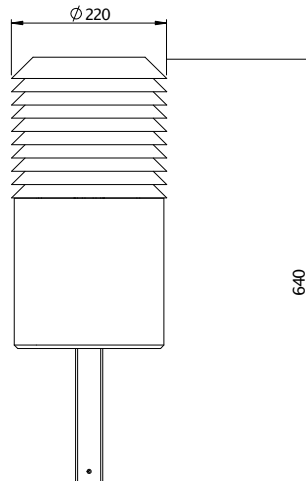
C4/C5* (*on request)

IP rating

IP45

Noise level

<30 dBA



Particulate matter sensor

Measurement technology
Laser-scattering technology

Laser classification
Class 1 (as enclosed housing)

Particle range
0.30 to 12.4 μm spherical equivalent size
(based on RI of 1.5)

Sampling interval
2 to 30 Histogram period (seconds)

Total flow rate
0.24 L/min (typical)

Max particle count rate
10,000 particles/second

Max coincidence probability
0.7 %concentration at 10^6 particles/L

Unit of measurement
 $\mu\text{g}/\text{m}^3$

Li-ion battery pack

Total energy
320 Wh

Rated voltage
11.1 V

Max. voltage
12.6 V

Peak power
400 W

Continuous power
300 W

Over current protection
40 A

Over discharge protection
<3 V per cell

Short circuit protection
<100 μs

Cell balancing
Yes

State of charge indicator
Yes

Environmental sensors

Atmospheric pressure sensor

700 ~ 1100 hPa

Humidity sensor

0 ~ 99 %RH ± 2.0 %RH (20~80%RH)

Temperature sensor

-40°C to 85°C ± 2 °C

Internal server communication system

GSM band

850/900/1800/1900 MHz

Transmitting power

Class 4 (2W) at 850/900MHz, Class 1 (1W) at 1800/1900MHz

GPS type

22 tracking (66 acquisition), GPS L1 C/A code

Accuracy

GPS L1 C/A code