Cubic Online Outdoor Dust Monitor OPM-6303M

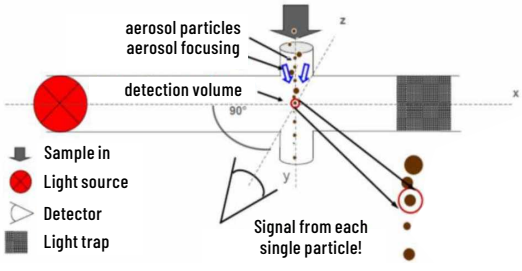
CUBIC

OPM-6303M

Online outdoor particulate monitor OPM-6303M adopts a pump-suction sampling method, and has a solid and reliable metal structure with intelligent auto particle identification (API) technology which enable the measurement accuracy in different dust source scenarios. It can accurately and stably output PM1.0, PM2.5, PM4.25, PM10, TSP mass concentration. The built-in pretreatment heater and flow monitoring sensor to make sure the device can output stable values and no affect by the humidity of the outdoor working environment.

Working principle

Light Scattering Dispersive (LSD): The light emitted by laser diode through the lens and meets dust to generate scattered light. The scattered light is detected by the detector after converging through the lens, and the concentration of dust is calculated according to the size of the pulse signal.



Advantages

- Laser scattering technology
- Constant stable sampling
- Industrial-grade laser diode
- Real-time monitoring
- Multichannel output
- High accuracy & high sensitivity

Features

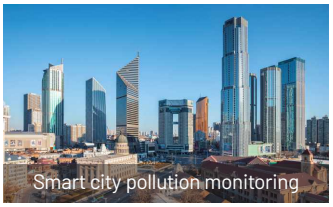
- 5 in 1 integrated particulate monitor with heater, dust sensor, filter, flow sensor and pump
- Concentration measurement of PM1.0, PM2.5, PM4.25(optional), PM10 and TSP
- Linear correlation with β rays R^2 >0.9
- Wide working temperature -30°C~70°C, suitable for extreme weather environment
- Modbus RS485 output for online remote monitoring

Applications


Construction site dust monitoring


Mining site dust monitoring


Industrial Hygiene particle monitoring


Smart city pollution monitoring

Specifications

Operating principle	Laser scattering
Measurement range	0~30,000μg/m^3
Output channels	PM1.0, PM2.5, PM4.25(optional), PM10 and TSP
Accuracy	PM1.0/PM2.5: ≤100ug/m^3: ±10μg/m^3, 100~1000μg/m^3: ±10%Reading PM10: ≤100μg/m^3: ±15μg/m^3, 100~1000μg/m^3: ±15%Reading TSP consistency: ≤100μg/m^3: ±20μg/m^3, 100~1000μg/m^3: ±20% Condition: 0°C~40°C, 50±10%RH, calibration instrument: Met One
Time to first reading	⩽8s
Data refresh time	1s
Sampling flow rate	1L/min
Working condition	–30°C ~ 70°C, 0-95%RH (non-condensing)
Storage condition	–40°C ~ 85°C, 0-95%RH (non-condensing)
Power supply	DC 12V, ripple wave < 50mV
Working current	⩽4.5A
Communication	RS485
Dimensions	W202*H90*D125 (mm)
Life span	⩾3 years

* For details of technical parameters, please refer to the specification sheet.

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