

Continuous monitoring of flying particles

Air Particle Monitor

PFM-AP01

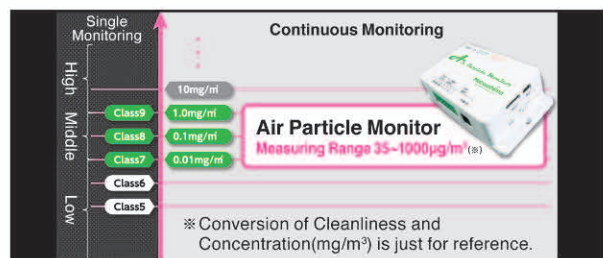


DUST MONITORING + CONTROL = KAIZEN (improvement)

Features

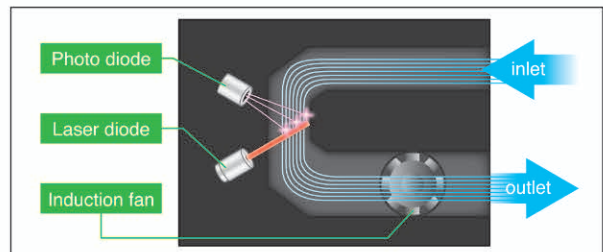
01 Applicable for $1000\mu\text{g}/\text{m}^3$ or smaller

FEATURE



02 Stable operation with induction fan

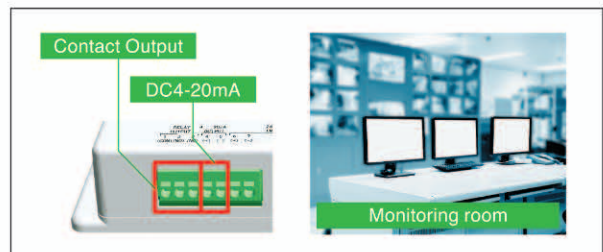
FEATURE



03 Control or alarm by output signals

FEATURE

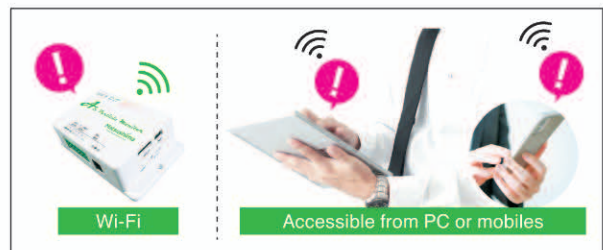
DC4-20mA analog signal and contact signal can be applied for trend monitoring or alarm.



04 Accessible anywhere

FEATURE

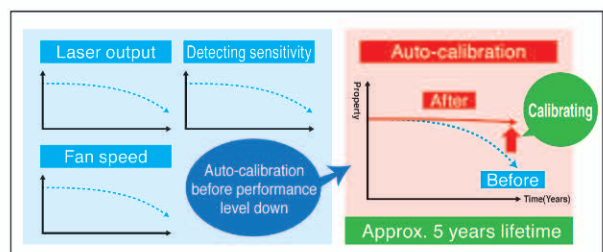
The measuring result can be checked by PC and mobiles through Wi-Fi system.



05 Auto-calibration system

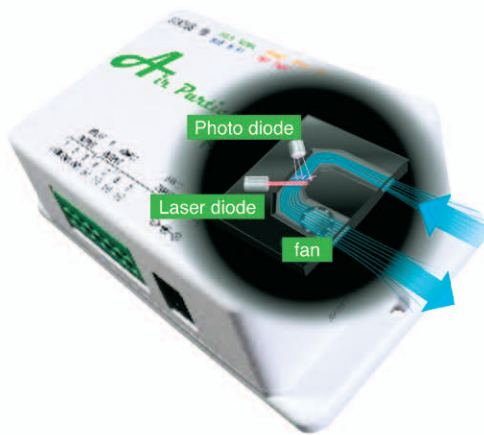
FEATURE

Long-term reliable measurement by auto-calibration system.
(Service lifetime: approx. 5 years.)





Principle



Light Scattering Method

The laser light transmitted by the laser diode is scattered by the inhaled particles, and the photo diode receives the scattered light.

Because the variation in scattered light is correlated with the number of particles, the measuring value can be applied as the mass concentration.

Applications



Manufacturing process

Improve product quality by monitoring the particulate matter.



Electrical room

Prevent the short circuit and fire caused by the dust.



Cleaning booth

Keep cleaning the environment by continuous monitoring.



Office

Create safe workplace by monitoring dust including PM2.5.



Commercial building

Evaluate the effectiveness of the air purification system.



Parking lot

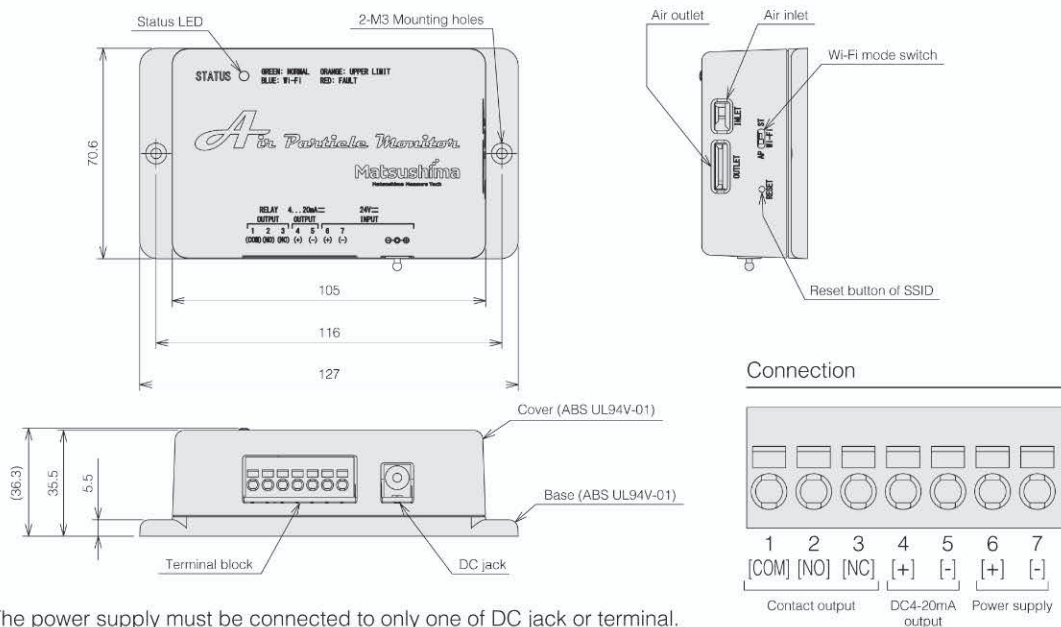
Support effective ventilation system by continuous monitoring.

Specification

Type	PFM-AP01		Cumulative count time	1 to 60 min (in case of 1 min, updating the number of the counting particles every 1 min)
Power source	DC24±10% ※		Update time of concentration	20s
Current consumption	150mA or less (in case of DC24V)		Moving average of particle counting	1 to 60 times
Min. detectable size	0.3μg		Wi-Fi standards	IEEE 802.11 b/g/n compliance
Range	Mass concentration [μg/m ³]	Particle diameter to be detected: PM1.0 or smaller / PM2.5 or smaller / PM10 or smaller(3 patterns) Measuring range: 35 to 1000μg/m ³	Wi-Fi frequency band	2.4GHz
			Wi-Fi communication distance (ref.)	Approx.100m (Straight-line distance in open environment.)
	Particle counting [cnt]	Particle diameter to be detected: PM1.0 or smaller / PM2.5 or smaller / PM5.0 or smaller / PM10 or smaller (4 patterns)	Mounting	M3 screw x 2
			Casing Material	ABS resin
Cleanliness level [class]	Calculating with conversion factor (class over 10,000)		Applicable temperature	0 to + 50 deg. C
Output signal	Analog output	DC4 to 20mA (Resolution: 1μA or less) Load resistance: Max. 500Ω	Applicable humidity	0 to 80%RH (without dew condensation)
	Contact output	1c(Contact capacity: DC30V 3A, AC250V 3A)	Protection	IP20
			Mass	Approx. 150g/unit

※ AC adaptor is available (optional)

Dimensions



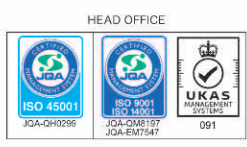
- The power supply must be connected to only one of DC jack or terminal.
- 2 DC24V/0.5A/Center plus/ 5.5
- Applicable cable size: 0.25 to 1.5mm²

Caution

- Read the instructions to ensure correct and suitable application of products.
- Contact our nearest sales office when using our products for any systems used in situations which may be life threatening.

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