미세먼지 측정기
(PM10, PM2.5 Monitor)

Model : BAM1020

용 도(Applications)

- 대기 및 실내 공기 중의 TSP, PM10 및 PM2.5의 자동 연속 측정
- 대기 오염 측정망(AQMS)구성에 사용

특 징(Features)

- C-14 Beta-ray Method
- 매시간 자동 SPAN 체크 기능
- 측정범위 0 ~ 10 mg/㎥ (0~10,000㎍/㎥)
- 1분 또는 1시간의 실시간 자동 연산 및 표시
- 182일간의 Data 저장가능
- 스마트 히터기술로 정확한 상대 습도 관리 가능

Specification

Measurement Principle	Mass Concentration of Ambient Particulate Matter by Beta Attenuation.
US-EPA Designations	US-EPA PM10 Equivalent Method: EQPM-0798-122. US-EPA Class III PM2.5 Equivalent Method: EQPM-0308-170 & EQPM-0715-266. US-EPA PM10-2.5 Equivalent Method: EQPM-0709-185.
Range	0 - 10 mg/m3 (0 - 10,000 µg/m3).
Analog Ranges	0 - 0.1, 0.2, 0.5, 1, 2, 5, 10 mg/m3 (others available).
Accuracy	Exceeds all US-EPA designation requirements for PM10, PM2.5, and PM10-2.5.
Measurement Resolution	0.1 µg/m3 .
Instrument noise (1 hour)	Less than 2.4 µg/m3 (less than 2.0 µg/m3 typical). Auditable with zero filter test.
Lower Detection Limit (2) (1 hour)	Less than 4.8 µg/m3 (less than 4.0 µg/m3 typical). Auditable with zero filter test.
Lower Detection Limit (2) (24 hours)	Less t han 1.0 µg/m3 Auditable with zero filter test.
Measurement Cycle Time	1 Hour (others available).
Flow Rate	16.67 liters/minute. Actual flow.
Filter Tape	Continuous glass fiber filter, 30mm x 25m roll. 70+ day operation/roll.
Span Check	Manual; Automatic optional.
Beta Source	14C (carbon-14), 60 µCi ±15 µCi (< 2.22 X 106 Beq), Half-Life 5730 years.
Beta Detector Type	Photomultiplier tube with scintillator.
Operating Temp. Range	0° to +50°C.
Operating Humidity Range	0-90% RH, non-condensing.
Humidity Control	Actively controlled inlet heater module, 10% - 99% RH setpoint.
Approvals	US-EPA, MCERTS (pending), CE (pending), NRC, TUV, CNEMC (pending), Korea.

Specification

User Interface	Graphic color touch screen display.
Analog Output	2 channels, voltage range 0-1 VDC, 0-2.5 VDC, 0-5 VDC.
Serial Interface	RS-232 2-way serial ports for PC or modem communications, Ethernet, USB.
Contact Closure Specification	1 channel, dry, Normally Open contact 12 VDC 0.5 A.
Alarm Contact Closures	Data Error, Tape Fault, Flow Error, Power Failure, Maintenance.
Compatible Software	Air Plus™, COMET™, HyperTerminal®.
Error Reporting	User-configurable. Available through serial port, display, and relay outputs.
Memory	14,000 records (1.5 years @ 1 record/hr).
Power Supply	100 - 240 VAC, 50/60 Hz Universal input.
Weight	19 kg (42 lbs) without external accessories.
Unit Dimensions	H x W x D = 36.2 cm x 43.2 cm x 46.7 cm (14.25″ x 17″ x 18″).

Touch Screen Display

Data Collection

Time	Conc (ug/m3)	ConcS (ug/m3)	Qbot (m3)	QbotS (m3)	no (V)	EnT (C)	EnBP (mmHg)	no (V)	RH (%)	AT (C)
6/11/2020 2:00:00 PM	8.1	8.6	0.699	0.668	0.001	47.8	745.8	0.003	47	31.24
6/11/2020 3:00:00 PM	6.9	7.5	0.699	0.666	0.001	48.2	745.5	0.003	45.9	31.91
6/11/2020 4:00:00 PM	15.1	16	0.699	0.666	0.001	45	745.5	0.003	44.4	31.82
6/11/2020 5:00:00 PM	12.2	13	0.699	0.667	0.001	48.7	745.4	0.003	47.5	31.29
6/11/2020 6:00:00 PM	10.5	11.2	0.699	0.669	0.001	47.8	745.5	0.003	51.8	30.57
6/11/2020 7:00:00 PM	10.6	11.2	0.7	0.672	0.001	45.9	745.7	0.003	53.8	29.78
6/11/2020 8:00:00 PM	11.8	12.4	0.7	0.677	0.001	44	746.1	0.003	54.8	27.79
6/11/2020 9:00:00 PM	8	8.3	0.7	0.681	0.001	41.1	746.2	0.003	72.9	25.95
6/11/2020 10:00:00 PM	11.2	11.7	0.7	0.683	0.001	38.5	746.5	0.003	73.3	25.12
6/11/2020 11:00:00 PM	14.4	14.8	0.7	0.686	0.001	36.5	746.6	0.003	72.5	24.38
6/12/2020 12:00:00 AM	11.9	12.2	0.7	0.688	0.001	35.3	746.6	0.003	76.6	23.09
6/12/2020 1:00:00 AM	13.4	13.7	0.699	0.689	0.001	35.3	746.6	0.003	79.2	22.36