

AMM - 3520

Aerosol Mass Monitor



►► Introduction

The AMM3520 and AM520 Personal Aerosol Monitors are small, portable, battery-operated, data-logging, light-scattering laser photometers that provide real-time aerosol mass concentration readings of dusts, fumes, mists, smoke and fog within a worker's breathing zone.

Newly designed inlet conditioners increase the mass concentration capability and provide size fraction cut points for PM10, Respirable (PM4), PM5, PM2.5, PM1 and .8µm Diesel Particulate Matter (DPM).

These monitors are the perfect solution for real-time, personal aerosol sampling in a variety of workplace environments, including but not limited to general industry, foundries, construction sites, pre-cast concrete and cement, chemical plants, refineries, petrochemical, power and utilities, transportation, aerospace, maritime, confined spaces and mining. For monitoring in flammable and explosive environments—Model AMM3520 is the smallest intrinsically safe real-time photometric personal exposure monitor currently available on the global market.

►► New Features and Benefits

- Dual display and logging of mass concentration and response concentration on one screen
- Stores up to 10 custom calibration factors on the instrument for different applications
- Data Analysis Software updated with;
- Custom calibration factor calculator to simplify calibration factor process
- Continued ability to name custom calibration factors and upload them to the instrument
- Enhanced alarm features to include response concentration alarm value

►► Features and Benefits

- Real-time mass concentration and secondary response concentration measurement and data logging for “in-the-field” data analysis of multiple aerosols
- Push button menu operation or programmable through newly improved Data Analysis Software
- User-selectable alarm levels to alert workers to high aerosol concentrations
- Newly designed robust impactors enable reliable size fraction measurements at higher aerosol concentrations over longer run times
- Model AMM3520 designed and tested to pass Intrinsic safety requirements as established by IEC (International Electrotechnical Commission)

►► Specifications

Sensitivity

Sensor Type	90° light scattering, 650 nm laser diode
Calibration	Calibrated against a gravimetric reference using the respirable fraction of standard ISO 12103-1, A1 Test Dust
Aerosol	
Concentration	Range 0.001 to 100 mg/m ³
Particle Size Range	0.1 to 10 µm
Minimum Resolution	0.001 mg/m ³
Zero Stability	±0.001 mg/m ³ over 24 hours using 10 second time constant
Temperature Coefficient	Approximately +0.0005 mg/m ³ per°C (for variations from temperature at which instrument was last zeroed)

Flow Rate

Range	User-adjustable, 0 to 1.8 liters/min (L/min) Note: Upper range is dependent on impactor or cyclone attached to the AM3520
-------	--

Temperature Range

Operating Range	32° F to 120° F (0° C to 50° C)
Storage Range	-4°F to 140° F (-20° C to 60° C)
Operational Humidity	0 to 95% RH, non-condensing

Time Constant (OLED Display)

Range	User-adjustable, from 1 to 60 seconds
-------	---------------------------------------

Built-in Inlets

Standard inlet	Not size-specific
PM1.0 impactor	50% cut-off at 1.0 µm
PM2.5 impactor	50% cut-off at 2.5 µm
PM5.0 impactor	50% cut-off at 5.0 µm
PM10 impactor	50% cut-off at 10.0 µm

Attachable Cyclones

4 µm Dorr-Oliver	50% cut-off at 4.0 µm
0.8 µm DPM	50% cut-off at 0.8 µm

Alarms

Alarm Types	General, STEL
Default Settings	0.5 mg/m ³ , 1 mg/m ³ , 3 mg/m ³ , 5 mg/m ³ , 15 mg/m ³ , Off
Programmable	from 0.001 to 999 mg/m ³ through Software
Alarm Indicator	95 dBA (at one foot) audible horn, blinking red LED, flashing red OLED display
Ringback Delay	30 sec, 1 min, 3 min, 5 min, 10 min, Off

Data Logging

Data Points	Approx. 80,000 (55 days logging once per minute)
Logging Interval	User-adjustable, from 1 second to 60 minutes

Communications Interface

Type	USB 2.0
Connector, Instrument	USB Micro-B (socket)

User-Select Calibration Factors

Factory Setting	1.0 (non-adjustable)
Ambient Setting	0.38 (non-adjustable)
User-Defined Settings	10, with user-defined labels via Software
Range	0.1 to 10.0, user-adjustable

Physical

External Dimensions	5.1 x 3.7 x 3.1 inch 129.5 mm x 94 mm x 78.4 mm with 803322 battery
Weight	22 oz (0.62 kg) with 803322 battery
Display	160 x 128 resolution color OLED display
Tripod Mounting Nut	¼-20 female thread

Battery Pack (Model AM3520 p/n 803300)

Rating	5100 mAh Li-Ion Pack
Run Time	Greater than 20 hours at 1.7Lpm with a PM2.5 impactor
Charge Time	4.0 hours (typical with a fully depleted battery)

Power Supply (p/n 803302)

Input Voltage Range	100 to 240 VAC, 50 to 60 Hz
Output Voltage	12 VDC @ 3.0A

Maintenance

Factory Clean/Calibrate	Recommended annually
User Zero Calibration	Before each use
User Flow Calibration	As needed with use of inlet conditioner

Minimum Computer Requirements for Software

Communications Port	Universal Serial Bus (USB) v2.0 or higher
Operating System	Microsoft Windows [®] 7, 8, or 10 (32-bit or 64-bit) operating systems

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

Our Products & Technologies



UV/VIS
Spectro 2080+
Double Beam



Infra FTIR



Optima Gas
Chromatograph
3007



Optima Gas
Chromatograph
2979 Plus



Flash
Chromatograph



Atomic Absorption
Spectrophotometer



Liquid Particle
Counter



Optical Emission
Spectrophotometer



DSC/TGA



Semi Auto Bio
Chemistry Analyzer



HEMA 2062
Hematology
Analyzer



Micro Plate
Reader/Washer



URINOVA 2800
Urine Analyzer



Total Organic
Carbon 3800



Fully Automated
CLIA



NOVA-2100
Chemistry Analyzer



PCR/Gradient PCR/
RTPCR



TOC
Analyzer



Laser Particle
Size Analyzer



Ion Chromatograph



Water purification
system

Regulatory compliances



Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



Analytical Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



HPLC Solutions MultipleLabs Analytical Bio-Med Analytical Distributors Analytical Foundation (Trust)

Corporate & Regd. Office:
Analytical House, # E67 & E68,
Ravi Park, Vasna Road, Baroda,
Gujarat 390 015. INDIA

T: +91 265 2253620
+91 265 2252839
+91 265 2252370
F: +91 265 2254395

E: info@hplctechnologies.com
info@multiplelabs.com
info@analyticalgroup.net

W: www.analyticalgroup.net
www.hplctechnologies.com
www.multiplelabs.com

Sales & Support Offices:
across the country :
Distributors & Channel
partners World Wide