EVM Environmental Monitors

The TSI® Quest™ EVM Environmental Monitors simultaneously measure particulates and gas concentration in real-time. These monitors measure select toxic gases, volatile organic compounds (VOCs), relative humidity, temperature and air velocity.

Features and Benefits

- Particulate, gas and photoionization detector (PID) measurement from a single device
- Less equipment to carry to job site; compact, user-friendly design
- 90-degree light scattering laser photometer measures particulates in real-time
- Proprietary technology for selecting particulate settings; no need for external cyclones
- Built in sampling pump allows for gravimetric analysis
- Large, easy-to-read display with trend graphing of measurements
- Time history data logging and compatibility with Detection Management Software makes analysis efficient

Dual-Analysis Outstanding Efficiency and Value

Simultaneous Measurement

- Measures particulate mass concentrations (0.1-10 µm), select toxic gases, select volatile organic compounds, carbon dioxide, relative humidity, temperature, and air velocity (with purchase of optional accessory).
- Helps control equipment costs, by combining three instruments into one.

Rotary Impactor

- Proprietary "dial-in" technology enables fast, easy selection of 4 different particulate size settings.
- Eliminates the need to switch out cyclones for different measurement aparameters.

Built-in Sampling Pump

- Allows user to easily capture particulate samples for on/off-site analysis.
- Identify and confirm particulate concentration in question.

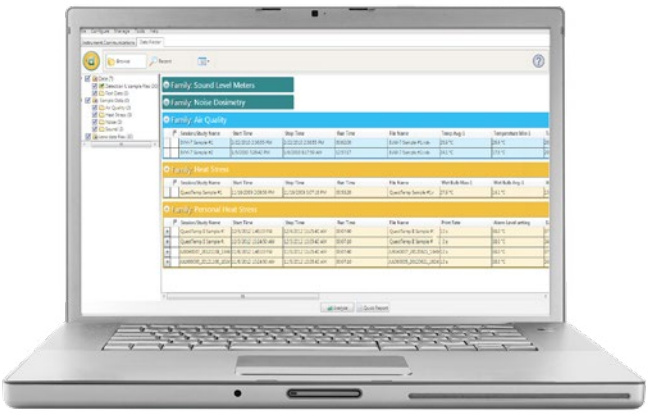
90° Light-Scattering Laser Photometer

- Enables real-time measurement of particulates.

Detection Management Software

Designed for dosimetry, sound level measurements, heat stress assessments and environmental monitoring, this advanced software helps safety and occupational professionals:

- Configure instrumentation and save pre-configured setups
- Retrieve, download, share, and save instrument data
- Create charts, tables, and reports to intuitively interpret your measurements
- Export and share recorded results



The software integrates with TSI® Quest™ Detection Solutions data logging instruments and will help you improve both operating efficiency and reporting in acoustics, heat stress and environmental monitoring.

Choose the Model That Best Meets Your Needs

	EVM-7 Indoor Air Quality/ Particulate Monitor (eliminates the need for separate meters)	**EVM-4** Indoor Air Quality Monitor (no particulates)	**EVM-3** Particulate Monitor (no Indoor Air Quality Monitor)
Temperature	▪	▪	▪
Relative Humidity	▪	▪	▪
Air Velocity (with purchase of optional accessory)	▪	▪	▪
Particulates (mass concentration)	▪		▪
Toxic Gas (choose from nine sensors)	▪ (optional)	▪ (optional)	
Carbon Dioxide	▪	▪	
Select Volatile Organic Compounds	▪	▪ (optional)	
Intrinsic Safety Approval			▪

Simultaneous Measurement

Method	Base Units	Display Resolution	Display Range	Accuracy Repeatability
VOC: 10.6eV Photoionization Detector				
Low Sensitivity PID	select ppb or mg /m^3	0.01	0.00 - 2,000	+/-5% / 2%*** at calibration level
High Sensitivity PID	select ppb or mg /m^3	1	0 - 50,000	+/-5% / 2%*** at calibration level
CO_2				
NDIR (Non-Dispersive Infrared)	ppm	1	0 - 5,000 ppm; autoranging (Non-condensing)	+/-100 ppm @20 deg C, 1 bar pressure at 2,000 ppm applied gas
Temperature				
Junction Diode	deg C	0.1	0.0 - 60.0	+/- 1.1 deg C
	deg F	0.1	32.0 - 140	+/- 2 deg F
Relative Humidity				
Capacitive	% humidity	0.1	0.0 - 100	+/-5% RH* of signal between 10%-90%
Air Velocity				
Omni-directional Heated Thermistor Windprobe	meter/sec	0.1	0.0 -20	+/-0.12 m/s + 4.5% of signal
	feet/min	1	0 - 3940	+/-23.6 ft/min + 4.5% of signal

Method	Base Units	Display Resolution	Display Range	Accuracy Repeatability
Particulates				
90° Light Scattering / Integrating Photometer	mg /m^3	0.001	0.00 - 200.0	+/-15% (rel ARD*)
	µg /m^3	1	0 - 20,000	+/-15% (rel ARD*)
Particulates Size Range	µm	N/A	0.1 - 10	**
Electrochemical Sensor				
CO - Carbon Monoxide Sensor	ppm	1	0 - 1,000	+/-5% / 2% of signal
Cl_2 - Chlorine Sensor	ppm	0.1	0.0 - 20	+/-5% / 2% of signal
EtO - Ethylene Oxide Sensor	ppm	0.1	0.0 - 20	+/-5% / 2% of signal
HCN - Hydrogen Cyanide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal
H_2S - Hydrogen Sulfide Sensor	ppm	1	0.0 - 500	+/-5% / 2% of signal
NO - Nitric Oxide Sensor	ppm	0.1	0.0 - 100	+/-5% / 2% of signal
NO_2 - Nitrogen Dioxide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal
O_2 - Oxygen Sensor	%	0.1	0.0 - 30	+/-5% / 2% of signal
SO_2 - Sulfur Dioxide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal

Specifications

EVM Environmental Monitors

General

Display Languages	English, French, German, Italian, Portuguese, and Spanish
User Interface	10 push buttons and 4 softkeys, menu driven
Display Type	Transreflective 128 x 64 LCD with backlighting
Software Compatibility	TSI® Quest™ Detection Management Software DMS
Standards	CE Mark and RoHS compliant
Particulate Impactors Size Fractions	PM2.5, PM4, PM10 or TSP (within the instrument's measurement range)
Flow Rate	1.67 L/min

Displayed Data

Measurements	Level, Minimum, Maximum, Average, Short-Term Exposure Level (STEL), Time Weighted Average (TWA)
Real-Time Measurement	Once per second display update rate
Time History Data	
Logging Intervals	Seconds: 1, 5, 15, 30 / Minutes: 1, 5, 10, 15, 30, 60
Trend Graphing Intervals for All Parameters	Minutes: 1.5, 3, 15 / Hours: 1.5, 3, 8, 12, 24
Status Indicators	Battery, Run, Stop, Overload and UnderRange
Averaging Time	1 to 30 seconds

Physical Characteristics

Size	7.5" x 7.5" x 2.75" (19 cm x 19 cm x 7 cm)
Weight	2.9 lb (1.3 kg)
Housing	Static dissipative ABS Polycarbonate housing
Tripod Mount	Standard photographic mount on bottom, 1/4" - 20 screw heads

Operating Conditions

Temperature Range	32°F - 122°F (0°C to 50°C)
Pressure Range	65 kPa to 108 kPa
Relative Humidity Range	10% to 90% non-condensing

Storage Conditions

Temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Humidity	0% to 95% RH, non-condensing

Electrical Characteristics

Intelligent Sensors	Auto-detectable when inserted at power-off mode
Battery Pack	Rechargeable lithium-ion
Battery Life	Minimum of 8 hours under continuous operation
External DC Power Input	10 to 16 Volt power inlet (nominal 12V DC) 1.5A
Power Adapter	Universal AC adapter 100 to 240 VoltAC, 50-60 Hz

* ARD - Arizona Road Dust, RH - Relative Humidity

** The photometer can detect particulates up to 100 µm; however, accuracy is reduced for sizes greater than 10 µm.

*** Relative Isobutylene

Specifications are subject to change without notice.

Knowledge Beyond Measure.

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