EVM Environmental Monitors



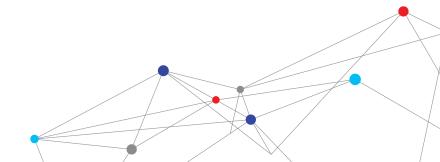
The TSI Quest™ EVM Environmental Monitors simultaneously measure particulates and gas concentration in real-time. These monitors measure select toxic gases, volatile organic compounds (VOCs), relative humidity, temperature and air velocity.



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.



Built-in sampling pump

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

- + 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.

90° light-scattering laser photometer

+ Enables real-time measurement of particulates.

Detection Management Software

measurements, heat stress assessments and environmental monitoring, this advanced software

The software integrates with TSI Quest Detection Solutions data logging instruments and will help you improve both operating efficiency and reporting in accoustics, heat stress and



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)	+	+	
Carbon Dioxide	+	+	
Select Volatile Organic Compounds	+		

SENSOR SPECIFICATIONS

	1								
Method	Base Units	Display Resolution	Display Range	Accuracy Repeatability	Method	Base Units	Display Resolution	Display Range	Accuracy Repeatability
VOC: 10.6eV Photoionization Detector			Particulates						
Low Sensitivity PID	select ppb or mg/m³	0.01	0.00 - 2,000	+/-5% / 2%*** at calibration	90° Light Scattering /	mg/m³	0.001	0.000 - 200.0	+/-15% (rel ARD*)
High Sensitivity	select ppb			level +/-5% / 2%***	Integrating Photometer	µg / m³	1	0 - 20,000	+/-15% (rel ARD*)
PID	or μg/m³	1	0 - 50,000	at calibration level	Particulates Size Range	μm	N/A	0.1 - 10	**
CO ₂				Electrochemical Sensor					
NDIR (Non- Dispersive Infrared)	ppm 1	0 - 5,000 ppm; autoranging	+/-100 ppm @20 deg C, 1 bar	CO - Carbon Monoxide Sensor	ppm	1	0 - 1,000	+/-5% / 2% of signal	
			(Noncondensing)	pressure at 2,000 ppm applied gas	Cl ₂ - Chlorine Sensor	ppm	0.1	0.0 - 20	+/-5% / 2% of signal
Temperature					EtO - Ethylene Oxide Sensor	ppm	0.1	0.0 - 20	+/-5% / 2% of signal
Junction Diode	deg C	0.1	0.0 - 60.0	+/- 1.1 deg C	HCN - Hydrogen Cyanide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal
Relative Humidity	deg F	0.1	32.0 - 140	+/- 2 deg F	H ₂ S - Hydrogen Sulfide Sensor	ppm	1	0.0 - 500	+/-5% / 2% of signal
Capacitive	% humidity 0.1			+/-5% RH* of	NO - Nitric Oxide Sensor	ppm	0.1	0.0 - 100	+/-5% / 2% of signal
		0.0 - 100	signal between 10%-90%	NO ₂ - Nitrogen Dioxide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal	
Air Velocity				O₂ - Oxygen Sensor	%	0.1	0.0 - 30	+/-5% / 2% of signal	
Omni-directional Heated	meter/sec	0.1	0.0 -20	+/-0.12 m/s + 4.5% of signal	SO ₂ - Sulfur Dioxide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal
Thermistor Windprobe	feet/min	1	0 - 3940	+/-23.6 ft/min + 4.5% of signal	Dioxide Jeii301	<u> </u>	<u> </u>	<u>I</u>	Of Signal

SPECIFICATIONS

EVM ENVIRONMENTAL MONITORS

General

Display Languages Chinese, Czech, English, French, German, Italian, Japanese, Korean, Norwegian, Polish,

Portuguese, Russian, Spanish, Swedish,

User Interface 10 pushbuttons and 4 softkeys, menu driven

CE Mark and RoHS compliant

PM2.5, PM4, PM10 or TSP (within the

instrument's measurement range)

Once per second display update rate

Seconds: 1, 5, 15, 30 / Minutes: 1, 5, 10, 15,

Minutes: 1.5, 3, 15 / Hours: 1.5, 3, 8, 12, 24

Transreflective 128 x 64 LCD with Display Type

backlighting

Software Compatibility TSI Quest Detection Management Software DMS

Standards

Flow Rate

Particulate Impactors

Size Fractions

Displayed Data

Measurements

Level, Minimum, Maximum, Average, Short-Term Exposure Level (STEL), Time Weighted Average (TWA)

1.67 L/min

Real-Time Measurement

Time History Data

Logging Intervals

Trend Graphing Intervals

for All Parameters Status Indicators

Housing

Battery, Run, Stop, Overload and UnderRange **Averaging Time** 1 to 30 seconds

Physical Characteristics

7.5" x 7.5" x 2.75" Size

(19 cm x 19 cm x 7 cm)

Weight 2.9 lb (1.3 kg)

> Static dissipative ABS Polycarbonate housing

Standard photographic mount on bottom, Tripod Mount

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 Volt

* ARD - Arizona Road Dust, RH - Relative Humidity

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

*** Relative Isobutylene

Specifications are subject to change without notice.

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