

# EVM

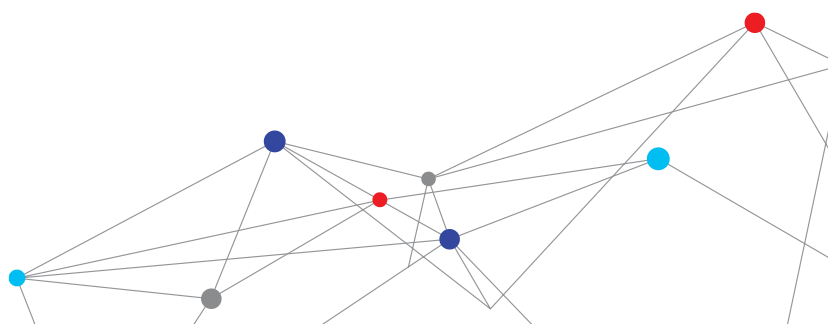
# ENVIRONMENTAL MONITORS

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  $\mu\text{m}$ ), 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.

#### 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 parameters.

#### 90° light-scattering laser photometer

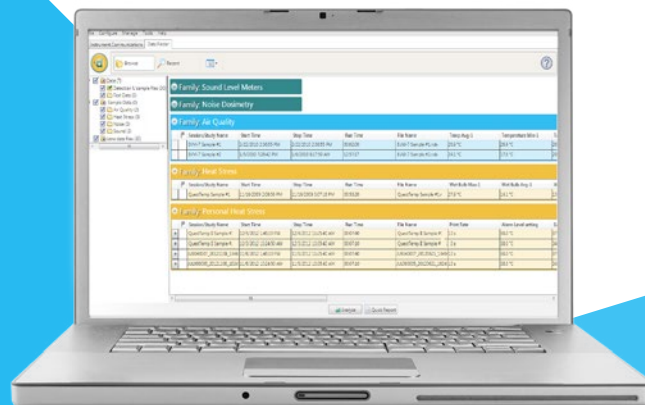
- + Enables real-time measurement of particulates.

### 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

	<b>EVM-7</b> Indoor Air Quality/ Particulate Monitor (eliminates the need for separate meters)	<b>EVM-4</b> Indoor Air Quality Monitor (no particulates)	<b>EVM-3</b> 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

Method	Base Units	Display Resolution	Display Range	Accuracy Repeatability	Method	Base Units	Display Resolution	Display Range	Accuracy Repeatability
<b>VOC: 10.6eV Photoionization Detector</b>					<b>Particulates</b>				
Low Sensitivity PID	select ppb or mg/m <sup>3</sup>	0.01	0.00 - 2,000	+/-5% / 2%*** at calibration level	90° Light Scattering / Integrating Photometer	mg / m <sup>3</sup>	0.001	0.000 - 200.0	+/-15% (rel ARD*)
High Sensitivity PID	select ppb or µg / m <sup>3</sup>	1	0 - 50,000	+/-5% / 2%*** at calibration level		µg / m <sup>3</sup>	1	0 - 20,000	+/-15% (rel ARD*)
<b>CO<sub>2</sub></b>					Particulates Size Range	µm	N/A	0.1 - 10	**
NDIR (Non-Dispersive Infrared)	ppm	1	0 - 5,000 ppm; autoranging (Noncondensing)	+/-100 ppm @20 deg C, 1 bar pressure at 2,000 ppm applied gas	<b>Electrochemical Sensor</b>				
<b>Temperature</b>					CO - Carbon Monoxide Sensor	ppm	1	0 - 1,000	+/-5% / 2% of signal
Junction Diode	deg C	0.1	0.0 - 60.0	+/- 1.1 deg C	Cl <sub>2</sub> - Chlorine Sensor	ppm	0.1	0.0 - 20	+/-5% / 2% of signal
	deg F	0.1	32.0 - 140	+/- 2 deg F	EtO - Ethylene Oxide Sensor	ppm	0.1	0.0 - 20	+/-5% / 2% of signal
<b>Relative Humidity</b>					HCN - Hydrogen Cyanide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal
Capacitive	% humidity	0.1	0.0 - 100	+/-5% RH* of signal between 10%-90%	H <sub>2</sub> S - Hydrogen Sulfide Sensor	ppm	1	0.0 - 500	+/-5% / 2% of signal
<b>Air Velocity</b>					NO - Nitric Oxide Sensor	ppm	0.1	0.0 - 100	+/-5% / 2% of signal
Omni-directional Heated Thermistor Windprobe	meter/sec	0.1	0.0 - 20	+/-0.12 m/s + 4.5% of signal	NO <sub>2</sub> - Nitrogen Dioxide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal
	feet/min	1	0 - 3940	+/-23.6 ft/min + 4.5% of signal	O <sub>2</sub> - Oxygen Sensor	%	0.1	0.0 - 30	+/-5% / 2% of signal
					SO <sub>2</sub> - Sulfur Dioxide Sensor	ppm	0.1	0.0 - 50	+/-5% / 2% of signal

# SPECIFICATIONS

## EVM ENVIRONMENTAL MONITORS

### General

Display Languages	Chinese, Czech, English, French, German, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, and Turkish
User Interface	10 pushbuttons 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 Volt AC, 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.

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