

DUSTTRAK™ ENVIRONMENTAL AEROSOL MONITORS MODELS 8540 AND 8543

REAL-TIME DUST MONITORING FOR
ANY APPLICATION ENVIRONMENT

Whether you need to monitor for welding fumes in a factory, for air quality during hospital construction, or for dust during process manufacturing, the DustTrak™ Environmental Monitor is a robust, reliable solution for many types of applications. Conveniently packaged solutions allow you to measure PM10, PM2.5, or PM10, PM2.5, PM1.0 and Total PM simultaneously. TSI also offers a cloud-based management system and a DustTrak Mobile App, allowing you to access data anytime and anywhere. The compact, DustTrak Environmental photometer, comes standard with other key components including a long-life pump, built-in auto zeroing, and an extended beam dump to combat contamination.



Features and Benefits

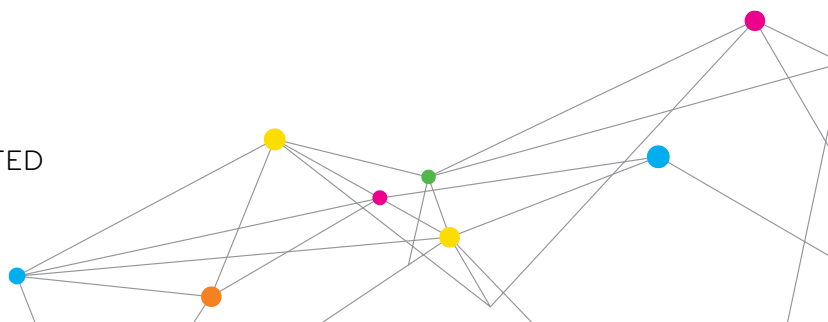
- + Conveniently packaged solutions for measurement of PM10, PM2.5, or PM10, PM2.5, PM1.0 and Total PM simultaneously
- + Robust design enables long-term runtime in environments from 32 to 122°F (0 to 50°C)
- + Field-replaceable, longer-life pump increases measurement uptime (life expectancy >10,000 hours)
- + Optional heated inlet sample conditioning improves measurement accuracy in humid environments >50% RH
- + Real-time access to secure data and sophisticated alert system via the Cloud Data Management System
- + Built-in auto zero module minimizes drift over long sample runs and temperature changes
- + Extended beam dump minimizes optical contamination

Applications

- + Perimeter monitoring
- + Remediation monitoring
- + Construction sites
- + Dust control operations
- + Engineering control evaluations
- + Indoor air quality investigations
- + Process monitoring



UNDERSTANDING, ACCELERATED



SPECIFICATIONS

DUSTTRAK™ ENVIRONMENTAL AEROSOL MONITORS MODELS 8540 AND 8543

Sensor Type

90° light scattering

Particle Size Range

8540 0.1 to 10 µm

8543 0.1 to 15 µm

Aerosol Concentration Range

8540 DTE 0.001 to 400 mg/m³

8543 DTE DRX 0.001 to 150 mg/m³

Resolution

±0.1% of reading or 0.001 mg/m³, whichever is greater

Zero Stability

±0.002 mg/m³ per 24 hours at 10 sec time constant

Flow Rate

3.0 L/min

Flow Accuracy

±5% of factory set point, internal flow controlled

Temperature Coefficient

+0.001 mg/m³ per °C

Operational Temp

32 to 120°F (0 to 50°C)

Storage Temp

-4 to 140°F (-20 to 60°C)

Operational Humidity

0 to 95% RH, non-condensing

Data Logging

5 MB of on-board memory (>60,000 data points)

45 days at 1 minute logging interval

Log Interval

User adjustable, 1 second to 1 hour

Physical Size (H x W x D)

8 x 8 x 4 in. (20.3 x 20.3 x 10.2 cm)

Weight

5.3 lb (2.4 kg)

Power-AC

Switching AC power adapter with universal line cord included,
115-240 VAC

Gravimetric Sampling

Removable 37 mm cartridge (user supplied)

CE Rating

Immunity EN61236-1:2006

Emissions EN61236-1:2006

Communications

USB (host and device) and Ethernet. Stored data accessible using
flash memory drive

Analog Out

User selectable output, 0 to 5 V or 4 to 20mA

User selectable scaling range

Alarm Out

Relay or audible buzzer

Non-latching MOSFET switch

+ User selectable set point

+ -5% deadband

+ Connector 4-pin

Mini-DIN connectors

Specifications are subject to change without notice.

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