



® Knowledge  
Beyond  
Measure.

# Continuous Real-Time Monitoring for Any Environment

DustTrak™ Environmental Aerosol Monitor



# Outdoor Air Quality Monitoring That Fits the Job

Get the data you need, when and where you need it. Choose a tripod-mounted portable setup for short-term, mobile tasks, or a pole-mounted system for continuous, fixed-location monitoring. Expand your insights with optional environmental sensors, including weather, noise, and gas measurements.

DustTrak™ Environmental monitors PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>4</sub>, and PM<sub>10</sub>, measured either simultaneously or individually, depending on the model.



## Two Deployment Configurations



	Portable / Short-Term	Fixed / Long-Term
Setup	Minutes	Hours (one time)
Mounting	Tripod	Pole or mast
Power / Runtime	Battery, up to 40+ hours (mains optional)	Continuous on mains or solar
Alerts	Via telemetry	Via telemetry
Operational checks	Quick setup/pack down routine; basic visual and flow check before each deployment	Visual check based on accumulative dust load
Certifications	Rule 1466 available	Rule 1466 and MCERTS available

Setup: tripod-mounted environmental enclosure; quick-release inlet; rechargeable battery power (mains optional if available); heated inlet standard on certified models

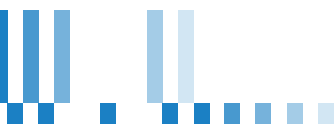
### Key points

- Deploy in minutes; relocate as activity shifts
- Up to 40+ hours on battery; simple pack down and redeploy
- Real-time alerts and remote access via telemetry
- Measures PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>4</sub>, PM<sub>10</sub> and Total PM (model dependent)
- Certified variants available: SCAQMD Rule 1466

Setup: pole-mounted environmental enclosure; mains or solar power; heated inlet standard on certified models.

### Key points

- 24/7 operation, Real-time alerts and remote access via telemetry
- Certified variants available: MCERTS and SCAQMD Rule 1466
- Supports optional weather station (WS500), noise and gases
- Rugged outdoor-rated enclosure



# Fit for Purpose in High-Dust Environments

Construction and remediation work creates rapid spikes and sustained loading. The DustTrak™ Environmental monitor is engineered to deliver stable, precise data in these conditions.

## How DustTrak™ Environmental monitors deliver:

- Captures fast concentration changes
- Handles sustained dust loading
- Delivers stable measurements in humid conditions
- Operates reliably in extreme cold environments
- Measures high, short-duration burst events without saturating, capturing true spike intensity
- Protects optical components with built-in design safeguards, refined through years of field use
- Auto-zeros to keep a consistent baseline
- Holds the set sample flow with active flow control under changing conditions
- Enables live streaming, alerts, and remote access with telemetry

## SCAQMD Pre-Approved For Rule 1466

TSI® worked with the South Coast Air Quality Management District (South Coast AQMD) and California's DTSC to evaluate sensor technology and set minimum monitor requirements in Rule 1466. TSI® was among the first two companies approved and offers the widest range of accepted options to meet site-specific needs.

## MCERTS Approved

The DustTrak™ Environmental Monitor meets the United Kingdom's environmental agency Monitoring Certification Scheme (MCERTS). MCERTS is based on International and European emissions standards and is the framework for monitoring instruments' quality requirements.



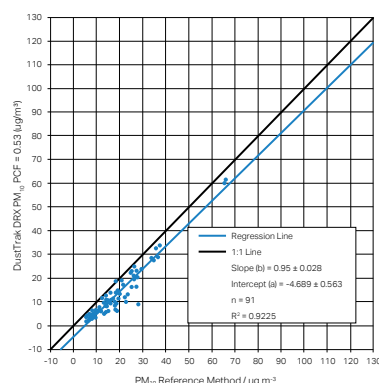
## Arizona Road Dust factory calibration

Calibrated to ISO 12103-1 A1 Arizona Test Dust, chosen for its wide particle size distribution and its ability to represent a broad range of ambient aerosol conditions for real-world monitoring.

## Refine performance for site-specific conditions

The DustTrak™ Environmental monitor supports application-specific adjustment so you can align measurements to your specific site.

Use predefined, user-selectable options grounded in independent conformity testing and peer-reviewed research to better match your site conditions.



**EDTDRXM**  
DTE DRX PM10 (PCF=0.53)  
versus the PM10 SEQ 47/50  
Reference Method - Comparison  
of 24 hour averages

## Humidity control

An integrated heated inlet conditions the sample stream to help reduce the influence of high relative humidity, improving stability and reducing moisture-driven measurement bias in challenging outdoor environments.

All certified models include the heated inlet as standard, helping maintain performance under real-world humidity conditions.



# Select Your Configuration

## DustTrak™ Environmental monitor

**(DTE)** — purpose-built outdoor system with 8540 (single-channel) or 8543 DRX (multi-channel). Best for fixed position continuous unattended monitoring.

8540 Single-Channel  
Certified Models:  
854201-M1  
854001-1466

8543 DRX Multi-Channel  
Certified Models:  
854301-M1  
854301-1466

### Accessories fixed continuous:

854049 - Pole mount kit  
801905 - Telemetry modem  
(enables remote access  
and live alerts)  
802915 - 12-month environmental  
data plan  
854051 - Wind speed and  
direction sensor  
854060 - Solar Power system  
854048 - Solar Shield



## DustTrak™ monitors (8530/8533) —

use when you need a field-portable solution; best for short term frequent deployments.

8530 Single-Channel  
Certified Models\*: 8530 -1466

8533 DRX Multi-Channel  
Certified Models\*: 8533-1466

### Accessories portable monitoring:

854057 - Tripod  
801901 - Telemetry modem  
(enables remote access  
and live alerts)  
802915 - 12-month environmental  
data plan  
801807 - Battery System  
801817 - Dual battery harness for  
extended life  
801808 - Replacement battery  
801810 - Solar Shield

\*8530/8533 Certified models include outdoor enclosure, heated inlet and auto-zero module

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