



Knowledge Beyond Measure.

# DustTrak™ Environmental Aerosol Monitors MCERTS Certified



## Real-time dust monitoring for any outdoor environment

The TSI® DustTrak™ Environmental Monitor is an ambient air monitor designed to accurately measure PM10 and PM2.5 either simultaneous or individually. With its compact, weatherproof enclosure the instrument is designed to handle harsh environments whilst providing accurate and reliable data. TSI® also offers a cloudbased management system and a DustTrak™ Mobile App, allowing you to access data anytime and anywhere. This instrument is compatible with a variety of sensors to detect volatile organic compounds (VOCs), gases, wind speed and more.

TSI DustTrak™ Environmental Monitors are certified compliant for use as Indicative Particulate Monitors. The compliance testing has been carried out on behalf of the United Kingdom's Environment Agency by the MCERTS certification scheme which is administered by the international CSA Group.

The MCERTS certified models are packaged in three convenient system configurations, each is fit for purpose dependent upon what mass fraction needs to be measured:

Measured Mass Fractions	Contents
PM2.5	<ul style="list-style-type: none"> <li>DustTrak™ Photometer</li> <li>DustTrak™ Weatherproof Enclosure</li> </ul>
PM10	<ul style="list-style-type: none"> <li>Omni-directional Inlet with Water Trap</li> <li>Heated Inlet Sample Conditioner</li> <li>Impactor (not required for 85430-M1)</li> </ul>
PM2.5 & PM10 (Simultaneous measurements)	<ul style="list-style-type: none"> <li>Heated Inlet Sample Conditioner</li> <li>Impactor (not required for 85430-M1)</li> </ul>

## Features and Benefits

- Real-time access to secure data via the cloud
- Text and email alerts
- Heated inlet sample conditioner for humidity levels above > 30% RH
- Long life sample pump (>10,000 hours)
- Robust weather proof enclosure with secure lock
- Interoperability, APIs for third party sensors
- MCERTS models available for PM10, PM2.5, and both PM10 and PM2.5

## Applications

- Construction sites
- Fence-line monitoring
- Land fill and recycling centres
- Environmental remediation
- Fugitive emissions monitoring
- Dust control operations



## Specifications

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Model Number	854001-M1	854201-M1	854301-M1
Measured Mass Fraction	PM 2.5	PM 10	Simultaneous PMTotal, PM10, PM2.5 and PM1.0
Concentration Range	0-400 mg/m <sup>3</sup>	0-400 mg/m <sup>3</sup>	0-150 mg/m <sup>3</sup>
Sample Flow Rate	3.0 L/min (±5% of factory set point, internal flow controlled)		
Detection Method	Light scattering laser photometer; 90° off-axis detector		
Gravimetric Sampling	Removable 37 mm cartridge (filter media not supplied)		
Communications	Wireless: Cloud service capability via Netronix Thiamis 1000 Quad-Band 3G/GPRS Modem <sup>1</sup>		
	Wireless: DustTrak Mobile wireless router and app <sup>2</sup> Wired: USB (host and device) and Ethernet		
Data Logging	Via Thiamis 1000: 1 Hz data rate: user selectable reporting interval from 1 minute to 24 hours (average reading). 2 GB of on-board memory, expandable to 32 GB. Stored data accessible using Environet software. <sup>3</sup>		
	Via internal manual mode: User selectable, 1 second to 1 hour log interval. 5 MB of on-board memory (>60,000 data points), 45 days at 1 minute logging interval. Internally stored data accessible using TrakPro Software (supplied).		
SMS Text Messaging and Email Alert Capability	User programmable from Environet software <sup>4</sup>		
Operating Environment	0° to 50°C standard; extended temperature range capability of -20° to 50° C available with optional enclosure heater; 0 to 100% RH		
Environmental Enclosure	Lockable, enclosure; 411 x 305 x 311 mm (HWD)		
Sample Inlet	Omni-directional inlet with water trap		
Power Requirements	Requires AC mains, rechargeable batteries or solar power system		
Weight	13.6 kg		
Mounting	Wall, pole and tripod mount		

<sup>1</sup> Additional product items numbers 801905 and 802915 are required for wireless and cloud services

<sup>2</sup> Additional product item number 801908 is required for using DustTrak™ mobile App

<sup>3</sup> Additional product item number 801905 is required for data access via the cloud

<sup>4</sup> Additional product item number 802195 is required for text and email alerts

Specifications are subject to change without notice.

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Netronix is a trademark of Netronix Inc.

\*For a full list of compatible third party sensors please visit

[www.tsi.com/environmental-dusttrak-aerosol-monitor](http://www.tsi.com/environmental-dusttrak-aerosol-monitor)

To see our list of patents please visit: [www.tsi.com/patents](http://www.tsi.com/patents)

Optional Accessories	
TSI P/N 854053	Tripod Mount Kit
TSI P/N 801905	Netronix Thiamis 1000 GSM/GPRS Modem
TSI P/N 801908	Wireless router kit for DustTrak™ Mobile App
TSI P/N 802915	12 month data plan for Cloud-based data management system
TSI P/N 854036	22-Ah Rechargeable Battery System
TSI P/N 854049	Pole Mount Kit for 854038 Environmental Enclosure
TSI P/N 854050	Metrology Sensor 300 (temperature, humidity and pressure)
TSI P/N 854051	Metrology Sensor 500 (temperature, humidity, pressure, wind direction and speed)
TSI P/N 854054	Heater for 854038 Environmental Enclosure (includes AC Power Supply)
TSI P/N 854060	Solar Power System (includes 2 x 90W solar panels, 1 x 120Ah battery)
TSI P/N B2B3-8542-M	3 Year Quality Guard Contract Bumper-To-Bumper Warranty
TSI P/N B2B5-8542-M	5 Year Quality Guard Contract Bumper-To-Bumper Warranty

- 1 Omni-directional Inlet with Water Trap
- 2 Heated Inlet Sample Conditioner
- 3 DustTrak™ Photometer
- 4 DustTrak™ Weatherproof Enclosure



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TSI Incorporated - Visit our website [www.tsi.com](http://www.tsi.com) for more information.

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