



Knowledge Beyond Measure.

DustTrak™ DRX Advanced Aerosol Monitors

Models 8533, 8533EP and 8534



Patented *DustTrak™* DRX technology delivers simultaneous real-time mass and size-segregated particulate measurement in a single instrument.

DustTrak™ DRX Aerosol Monitors provide real-time measurement of dust, smoke, fumes and mists, while delivering simultaneous size-segregated mass data for deeper particulate insight. With *Smart Bridge™* software supporting live data streaming, cloud-based study access, review and reporting, *DustTrak™* DRX also enables a more connected monitoring workflow. Using light-scattering laser photometer technology and a sheath air system to help keep optics clean, *DustTrak™* DRX is designed for reliable operation and low maintenance. Available in desktop, external pump, and handheld configurations, the platform supports indoor, industrial, and outdoor monitoring applications.

Features and Benefits

All Models

- Real-time mass concentration with simultaneous size-segregated measurement
- Measures PM1, PM2.5, respirable, PM10, and total PM simultaneously in one instrument
- Supports a more connected workflow for live data access, review, and reporting
- High-resolution OLED display for rich, clear data visualization

Connected Workflow Support

When used with *Smart Bridge™* software, DustTrak DRX supports live data transfer to help improve data access, review, and reporting workflows. This helps users move more efficiently from measurement to analysis and shared results.

Choose the right configuration

8533 Desktop

For area and process monitoring

Designed for indoor, industrial, and process applications requiring continuous real-time data and simultaneous size-segregated mass measurement over a work shift or shorter-term monitoring period.

8533EP Desktop with External Pump

Designed for longer-term indoor or outdoor deployments where continuous operation is required. The external pump configuration makes it the preferred choice for remote, unattended, and extended monitoring over days, weeks, or months, with accessory options for protected environmental use.

8534 Handheld

For walk-through surveys and spot checks

Portable real-time aerosol monitoring with simultaneous multi-size fraction insight for industrial hygiene, indoor air quality, and quick investigations.

Optional accessories and connected workflow tools are available for extended functionality, including auto zeroing, environmental enclosures, heated inlet sample conditioning, and *Smart Bridge™* software for live data access, review, and reporting.



Specifications

DustTrak™ DRX Aerosol Monitors

Models 8533, 8533EP and 8534

Parameter	Specification
Sensor type	90° light scattering
Particle Size Range	0.1 to 15 µm
Concentration Range	8533 / 8533EP / 8534: 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 hr at 10 sec time constant
Flow Rate	3.0 L/min
Environmental Limits	Operating temp: 32 to 120°F (0 to 50°C) Storage temp: -4 to 140°F (-20 to 60°C) Operating humidity: 0 to 95% RH, non-condensing
Data Logging	5 MB onboard memory (>60,000 data points) 45 days at 1 minute logging interval Log interval: 1 second to 1 hour
Dimensions (H x W x D)	Handheld: 4.9 x 4.8 x 12.5 in. (12.5 x 12.1 x 31.6 cm) Desktop: 5.3 x 8.5 x 8.8 in. (13.5 x 21.6 x 22.4 cm) External pump: 4.0 x 7.0 x 3.5 in. (10.0 x 18.0 x 9.0 cm)
Weight	Handheld: 2.9 lb (1.3 kg), 3.3 lb (1.5 kg) with battery Desktop: 3.5 lb (1.6 kg); 4.5 lb (2.0 kg) with 1 battery; 5.5 lb (2.5 kg) with 2 batteries External pump: 3.0 lb (1.4 kg)
Communications	8533 / 8533EP: USB (host and device) and Ethernet 8534: USB (host and device)
Power/Outputs	Power: 115–240 VAC switching AC adapter included 8533 / 8533EP analog output: 0 to 5 V or 4 to 20 mA Alarm output: relay or audible buzzer
Display	PM1, PM2.5, respirable, PM10, and total PM all displayed 8533 / 8533EP: 5.7 in. high-resolution OLED touchscreen 8534: 3.5 in. high-resolution OLED touchscreen
Gravimetric Sampling	8533 / 8533EP removable 37 mm cartridge (user supplied)
CE Rating	EN61236-1:2006 (Immunity and Emissions)

Model	Description
8533	Desktop model for area and process monitoring
8533EP	Desktop with external pump for long term unattended monitoring
8534	Handheld model for walk-through surveys and spot checks

Battery and Power	Typical Runtime / Charge
8533 / 8533EP	1 battery: up to 6 hr 2 batteries: up to 12 hr In-instrument charge: 4 / 8 hr External charger: 4 / 8 hr
8534	Battery: up to 6 hr In-instrument charge: 4 hr.

Notes:

- Desktop models support Ethernet, analog output, alarm output, and gravimetric reference sampling.
- Environmental enclosure (8535), heated inlet sample conditioning, and AutoZero support extended monitoring applications.*
- When used with **Smart Bridge™** software, **DustTrak™** DRX supports live data transfer for data access, review, and reporting workflow.
- Specifications subject to change without notice.

Accessory	Description	Part Number
AutoZero Module	Helps minimize the effect of zero drift during extended monitoring periods. Compatible with 8533/8533EP.	801690
Environmental Enclosure	Protective outdoor enclosure for compatible desktop models.	8535
Heated Inlet Sample Conditioner	Helps reduce humidity effects on photometric mass measurements during outdoor sampling. Compatible with 8533/8533EP (must be used with 801690).	801851
Desktop Li-Ion Battery Pack	9220 mAh battery pack for models 8533 and 8533EP.	801680
Desktop External Battery Charger	External charger for 8533 / 8533EP Li-ion batteries.	801685
Handheld Li-Ion Battery Pack	4400 mAh battery for model 8534.	801681
Telemetry Modem	4G Cellular modem for use with 8535 enclosure only.	801901
Cloud Subscription	12 month subscription to Environet cloud platform. Purchase with 801901.	802915

*For use without continuous AC power, battery system 801807 and the dual-battery wiring harness 801817 are required to power a fully configured **DustTrak™** for outdoor monitoring over a typical 8–12 hour work shift



Knowledge Beyond Measure.

TSI Incorporated - Visit our website www.tsi.com for more information.

USA	Tel: +1 800 874 2811	India	Tel: +91 80 67877200
UK	Tel: +44 149 4 459200	China	Tel: +86 10 8219 7688
France	Tel: +33 1 41 19 21 99	Singapore	Tel: +65 6595 6388
Germany	Tel: +49 241 523030		

Specifications are subject to change without notice.

TSI, and the TSI logo are registered trademarks of TSI Incorporated in the United States and may be protected under other country's trademark registrations.