



® Knowledge  
Beyond  
Measure.

# Occupational Health & Safety

Product Guide





# Building strong health and safety programs together

As an occupational health & safety professional or an industrial hygienist, you are continuously auditing, documenting, and taking corrective or preventive actions. It's the only way to keep your teams safe and healthy—and to stay in compliance.

A strong safety program depends on good data. Only with correct measurements, can you identify risks, report on them with confidence, and make informed decisions.

## **Measuring What's Important**

TSI® develops and manufactures accurate and reliable occupational health and safety instruments to measure what's important in your safety program. We understand how important your job is—and what you need to do it well.

**Trust TSI® to help you handle your OH&S challenges every day.**



# Respirator Fit Testers

## PortaCount® Respirator Fit Tester

Models 8040 & 8048

The PortaCount® Respirator Fit Tester provides a consistent and objective respirator fit test in less than 2½ minutes. Beyond the fit test, PortaCount® instruments allow users to see how respirator fit changes in real-time during donning and adjustment, providing valuable training and making mask selection easy.

The PortaCount Respirator Fit Tester Model 8048 can fit test any respirator, including all N95s. The model 8040 provides the same quality fit test for all respirators with ≥99% filter efficiency.



Tablet is sold separately or with the 8040T or 8048T packages.



## Applications

- Quantitative respirator fit testing (QNFT)
- Half-facepiece elastomeric respirator fit testing
- Full-facepiece elastomeric respirator fit testing
- Disposable filtering-facepiece respirator fit testing for NIOSH Series -95 / -99 / -100 and EN-P1 / -P2 / -P3 masks (availability dependent on model)
- SCBA fit testing

# Exposure Monitoring

## Aerosol Monitors

### DustTrak™ II and DustTrak™ DRX Aerosol Monitors

Models 8530 & 8533

The DustTrak™ II and DustTrak™ DRX Aerosol Monitors are battery-operated, data-logging, light-scattering laser photometers that provide real-time mass concentration readings for aerosol contaminants such as dust, smoke, fumes and mist. Instruments use a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance.



The DustTrak™ II Aerosol Monitor provides real-time aerosol mass readings, while the DustTrak™ DRX Aerosol Monitor can measure mass concentrations in four size fractions simultaneously. Both instruments also collect gravimetric samples for lab analysis.

## Applications

- Industrial/occupational hygiene surveys
- Outdoor environmental monitoring
- Engineering control evaluations
- Process monitoring
- Aerosol research studies



# Handheld Aerosol Monitors

## DustTrak™ II and DustTrak™ DRX Handheld Aerosol Monitors

### Models 8532 & 8534

The DustTrak™ II Aerosol Monitor 8532 is a handheld battery-operated, data-logging, single-channel, light-scattering laser photometer that gives you real-time aerosol mass readings. It uses a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance.

The DustTrak™ DRX Aerosol Monitor 8534 uses the same technology as the 8532 while adding multi-channel capabilities that can simultaneously measure both mass and size fraction.



### Applications

- Industrial/occupational hygiene surveys
- Indoor air quality investigations
- Point source location monitoring
- Baseline trending and screening
- Engineering control evaluations



# Personal Aerosol Monitors

## SidePak™ Personal Aerosol Monitors

### Models AM520 & AM520i

SidePak™ AM520 and AM520i Personal Aerosol Monitors measure worker exposure to respirable dust, silica and diesel particulate matter (DPM), including: PM10, PM4 (respirable), PM2.5, PM1, and 0.8µm DPM. Designed to take measurements from the worker-breathing zone, they are the industry's most versatile, lightweight personal aerosol monitors.



The SidePak™ AM520i is IECEx, ATEX, CSA, and IECEx-SIM certified for use in explosive environments.

## Industry Applications

- Respirable silica
- Welding
- Bulk material handling
- Chemical manufacturing and processing
- Mining
- Oil and gas /petrochemical

## Primary Calibrator

### Models 4046 & 4146

TSI® offers the Model 4046 and Model 4146 Primary Calibrators used to calibrate the flow rate of air sampling instruments. These portable, battery-operated units are easy to operate and come with +/- 2 % of reading accuracy. Volumetric flow rate is displayed continuously so adjustments to pump flow can be made in real-time.





## Noise Monitors

### Quest™ Edge Personal Noise Dosimeters Models 4+ & 5

Quest™ Edge Personal Noise Dosimeters are easy to use for measuring and data logging a worker's personal noise exposure. This assists safety professionals with compliance in hearing conservation programs.

- Quest™ Edge 4+ Personal Noise Dosimeter is available in Bluetooth® and non-Bluetooth models. It features a large color screen, and battery run time of 80+ hours. Bluetooth® connectivity allows users to program, start and stop a study, and monitor results for multiple dosimeters from a distance with the Edge dB app.
- Quest™ Edge 5 Personal Noise Dosimeter is an intrinsically safe noise dosimeter. The instrument is certified from ATEX, IECEx, CSA and MSHA for use in explosive environments and features three independent dosimeter readings.



### Applications

- Mining (Edge 5 for underground)
- Oil & gas, and energy
- Manufacturing
- Noise consultancy
- Government and military

# Sound Level Meters

## Quest™ Sound Examiner and SoundPro™ Sound Level Meters

### SE-400 & SP-Series

Quest™ Sound Level Meters make it simple to document and analyze sound levels across variable environments.



- Designed with industrial hygienists in mind, Sound Examiner instruments are ideal for managing hearing conservation programs. The IECex and ATEX intrinsically safe certified option is ideal for oil and gas applications.
- SoundPro™ Sound Level Meters add octave band analysis, offering comprehensive sound data information for industrial hygienists, engineers, and audiologists.

## Applications

- Occupational noise evaluations
- Environmental noise assessments
- General sound and frequency analysis
- Noise violations and community noise monitoring
- Automotive design and vehicle noise evaluations

## Acoustic Calibrator

### Model AC-300

The AC-300 Acoustic Calibrator with class 1 microphone calibrates all Quest™ Noise Dosimeters and Sound Level Meters. The microphone produces two signals: 250 Hz or 1,000 Hz at a sound pressure level of 114 dB.



# Heat Stress Monitors

## QuestTemp® WBGT Heat Stress Monitors

Models 32/34/36 & 44/46

QUESTemp® Heat Stress Monitors are designed to quickly and accurately evaluate potential heat stress environments.

- The QUESTemp® 44/46 models utilize a waterless wet bulb sensor to calculate wet bulb globe temperature (WBGT).
- It eliminates the need for daily wet bulb upkeep.
- The QUESTemp® 32/34/36 models utilize a traditional wet bulb for the calculation of a WBGT index value.



Visit the TSI® website for more information on model features.

### Applications

- Environmental remediation
- Military and government
- Energy and utilities
- Manufacturing



# TSI Link™ Solutions

TSI offers a full air monitoring solution that includes IoT devices such as AirAssure™ IAQ monitors and BlueSky™ outdoor air quality monitor in combination with TSI Link™ software.

TSI Link™ is the cloud-based platform that allows you to manage devices and view air quality data from anywhere at any time, while providing also multiple integration opportunities through API.

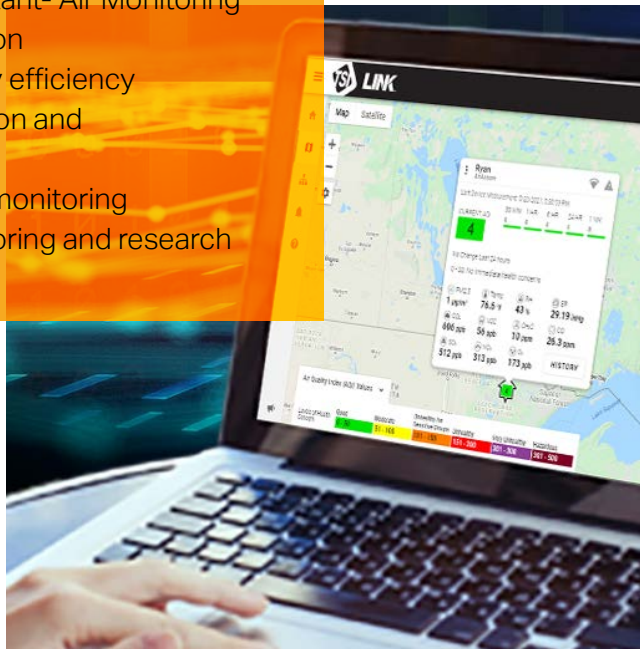
Benefits of TSI Link Solutions & API Data Services:

- Remote Device Management
- Customizable Dashboard and Real-Time Alerts
- Seamless Integration with BMS, Third-Party Software and Analytics Tools
- Ability to Send Data to Customer's Own Platform



## Applications

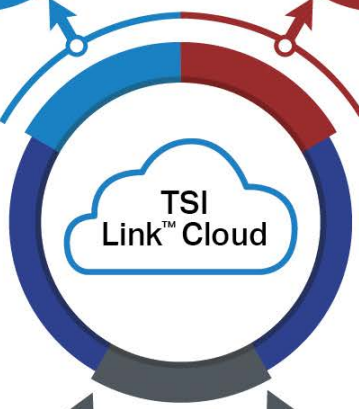
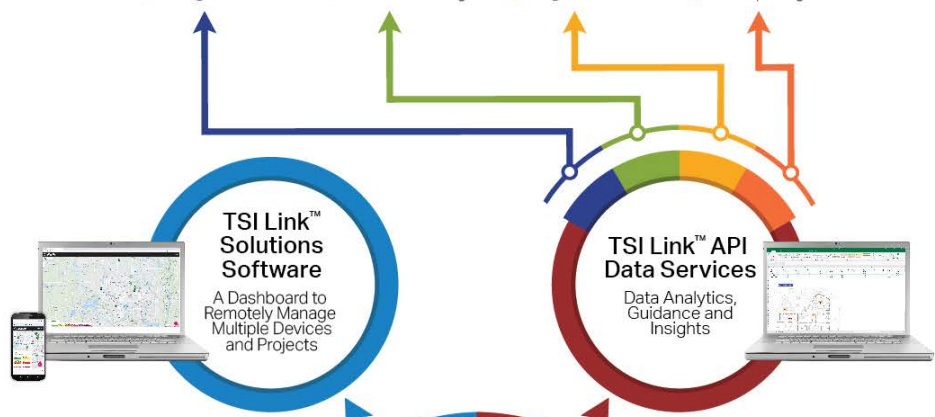
- Indoor Air Quality monitoring
- Wildfire/External pollutant- Air Monitoring for employee protection
- Help improving energy efficiency
- Assess building filtration and ventilation efficacy
- Construction project monitoring
- Long term data monitoring and research






# TSI Link™ IoT Platform

A Flexible Solution for Your Customized Needs

-  **Customer Own Software/ Platform**  
Data Access and Management
-  **Building Management System**  
Energy Efficiency and Automation Intelligence
-  **Business Intelligence Tools (e.g. Tableau)**  
Integration with Third-Party Customer Insight Tools
-  **Customer Data Analytics (e.g. Excel®)**  
Data Visualization and Reporting



-  **BlueSky™ Air Quality Monitor**
-  **Upcoming IoT Smart Devices**
-  **AirAssure™ IAQ Monitor**



For more information, please visit [tsi.com/tsilink](http://tsi.com/tsilink)

# Air Quality Monitoring

## Continuous IAQ Monitors AirAssure™ Indoor Air Quality Monitors

The TSI AirAssure™ Indoor Air Quality Monitors available in two, four, and six-gas models are designed to help you optimize your indoor air quality ventilation needs, while helping to achieve a safe and productive space. Utilizing low-cost sensor technology to continuously monitor gas and particulate pollutants along with essential IAQ parameters to help you achieve ideal indoor air quality. The device is able to measure the level of CO, CO<sup>2</sup>, Formaldehyde, tVOCs, SO<sup>2</sup>, O<sup>3</sup>, NO<sup>2</sup>, as well as particulate matter (PM), barometric pressure, temperature and relative humidity.



Integrates with



Solutions

### Applications

- Schools, colleges & universities
- Childcare & youth programs
- Government agencies and environmental organizations
- Healthcare, hospitals, assisted living campuses, and medical office buildings
- Industrial manufacturing, factories, power generation and petrochemical plants
- Hotels, conference centers, shopping malls, athletic/entertainment arenas
- Researchers and Community Groups looking to collect IAQ data



## Hyperlocal Air Quality Monitoring BlueSky™ Air Quality Monitor

BlueSky™ Air Quality Monitors are small, lightweight, low-cost air quality sensors that are easy to install in or around an area of concern. Each monitor is able to transmit real-time data to TSI Link™ Solutions for secure 24/7 remote access.

You can either operate a BlueSky monitor individually or purchase multiple monitors to build a network of sensors that will accurately report real-time, ultra-localized air quality measurements.



Integrates with



Solutions

### Applications

- Air Quality Monitoring for Respiratory Health
- Fenceline/Perimeter Monitoring
- Municipalities & Smart Cities
- Community Monitoring Programs
- Hot Spot Detection
- Indicative Comparisons to Federal Reference Air Quality Data

# Outdoor Environmental Monitors

## DustTrak™ Environmental Monitors

DustTrak™ Environmental Monitors are air monitoring systems utilizing data-logging, light-scattering laser photometers. Early detection features on the DustTrak™ allow for a quick response to exposure concerns. This system is built upon proven technology that thousands of people use every day.

There are a number of model configurations available for the DustTrak Environmental Monitor System.

Visit the TSI® website for more information.



### Applications

- Outdoor environmental monitoring
- Monitoring for a Community Air Monitoring Plan (CAMP)
- Brownfields/remediation monitoring
- Fence-line construction monitoring



# Multi-Function Ventilation Meters

## VelociCalc® 9600 Series

Models 9600, 9630, 9650, 9650NB

The VelociCalc® Multi-Function Ventilation Meter 9600 series includes a built-in workflow for calculating the percentage of outside air used to determine ventilation effectiveness in a building or room.

The VelociCalc® Pro adds built-in workflows for heat flow calculation and four methodologies for performing a duct traverse. It's ergonomic design includes a probe holder and integrated magnets allowing for attachment to exposed ductwork, chemical fume hoods and biological safety cabinet frames hands-free operation. These instruments are available with or without a differential pressure sensor, and are designed to work with a wide range of plug-in probes.



### Applications

- Testing, Adjusting, and Balancing (TAB)
- Professionals
- Commissioning Professionals
- Certification Companies
- HVAC Professionals
- Facility Management Teams
- Health & Safety Professionals
- IAQ Consultants



# Indoor Air Quality Monitors

## Q-Trak™ XP Indoor Air Quality Monitors

### Model 7585

This product is only available in North America.

Providing a comfortable, safe, and healthy indoor environment is an increasingly important concern. Good indoor air quality improves concentration and productivity and can also reduce lost days due to health-related absences.



## Applications

- IAQ surveys and investigations
- Proactive IAQ monitoring (schools and office buildings)
- Indoor air quality compliance testing to local or regional standards and guidelines
- Evaluating thermal comfort (temperature and relative humidity)



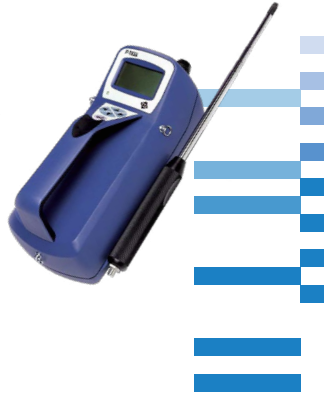


# Ultra Fine Particle Counters

## P-Trak® Ultra Fine Particle Counters

### Model 8525

The P-Trak® Model 8525 Ultrafine Particle Counter gives direct, real-time measurement of workplace ultrafine particulate levels (smaller than 1  $\mu\text{m}$ ). This portable instrument detects and counts ultrafine particles that often accompany or signal the presence of a pollutant that can be the root cause of IAQ complaints.



### Applications

- Check office equipment
- Off-gassing of chemical cleaning agents
- Vehicle emission migration
- Combustion leaks



# QualityGuard™ Service & Calibration Agreements

TSI® instruments set the standard for reliability and accuracy. Protect your investment now and in the future with a TSI® QualityGuard™ Calibration or Bumper-to Bumper (B2B) Warranty Contract.

## Why Do I Need a TSI® Service Contract?

- **Upfront Fixed Costs.** No need to procure additional funding for annual calibration and repairs.
- **Optimal Performance.** Regular service and calibration is the best way to ensure optimal performance during critical projects.
- **Instrument and Firmware Updates.** Improvements are implemented to products on an on-going basis, some of which are available to customers at no additional charge when their instruments are returned for annual maintenance and calibration.
- **Quality.** Our Quality System is registered to ISO 9001:2015, and TSI uses NIST traceable analytical tools and NIST traceable standard reference materials to check out and calibrate instruments.
- **Technical Expertise.** TSI has invested in sophisticated instrumentation to allow our experienced service technicians to test, calibrate and repair our instruments with unparalleled precision.
- **Value.** QualityGuard™ Calibration and B2B Warranty Contracts are priced to be an incentive for routine calibration and extended warranty services.

To learn more and find out if your instrument qualifies visit:  
**[tsi.com/support/service-and-calibration-agreements](https://tsi.com/support/service-and-calibration-agreements)**



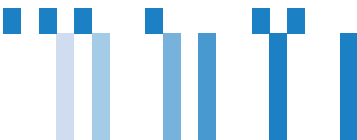


## **OPERATING AT A GLOBAL AND HUMAN SCALE**

Around the globe, TSI® provides a comprehensive range of solutions with unparalleled reliability and accuracy necessary to accomplish your goals. From workflow management, software services and measurement instruments, our complete suite of solutions are tailored to help you make informed, data-driven decisions to get your job done. Turning data into actionable information enables you to do your job more efficiently. TSI® understands the science, the data, and the processes that support your work.

We are proud to provide you with a wide array of solutions to help you with your Occupational Health & Safety concerns. Our local Sales Representatives are close by, ready to assist you.

**To learn more, visit [tsi.com](https://www.tsi.com)**





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**Knowledge Beyond Measure.**

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