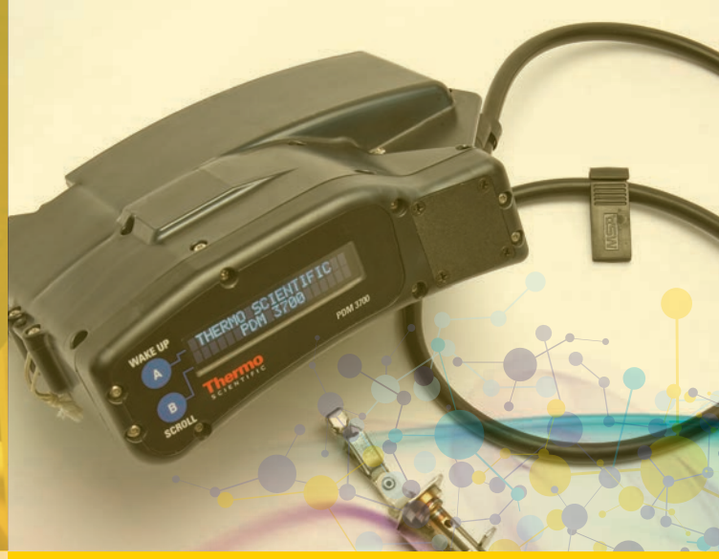


Thermo Scientific Occupational and Environmental Hygiene

Increase Visibility

Versatile monitoring of particulates and gases

Thermo SCIENTIFIC

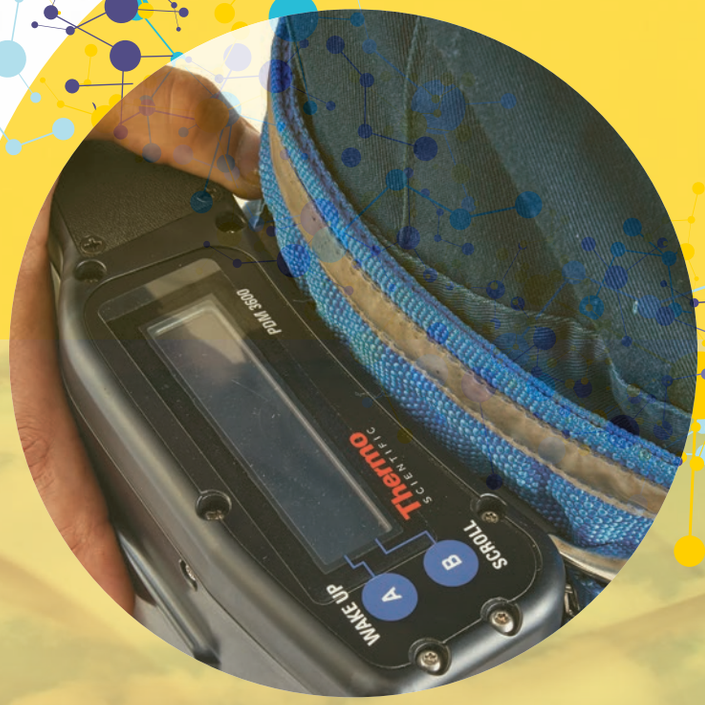
Occupational and Environmental Hygiene

Knowledge is Power

Quick identification is the key to protecting both workers and the environment. Equipment that meets the urgent needs of the field, such as fast response, simple operation and flexibility, gives you the power to take the appropriate action to minimize hazards.

Industry Expertise Built In

Our in-house team of scientists, engineers and technicians continuously strive to develop and investigate the latest technologies, drive product advancement, and partner with all other functional teams to ensure that only quality products, with the best price and performance, are available to our customers. Utilizing field-proven technologies, in addition to industry preferred methods, we offer solutions that are not limited by current technologies, but are driven by industry needs.



Direct Service and Support

We offer a full range of instrument and services to meet the growing needs of the environmental market. We are committed to being the global leader in environmental monitoring applications, where our market knowledge, customer intimacy, application expertise, instrument technology, and global service footprint help our customers succeed in protecting people and the environment.

Contents

Occupational and Environmental Hygiene Solutions

Our line of Thermo Scientific Occupational and Environmental Hygiene instruments are the most versatile products available today, providing solutions for the monitoring of gases or particulates, in both general use and areas requiring intrinsic safety.

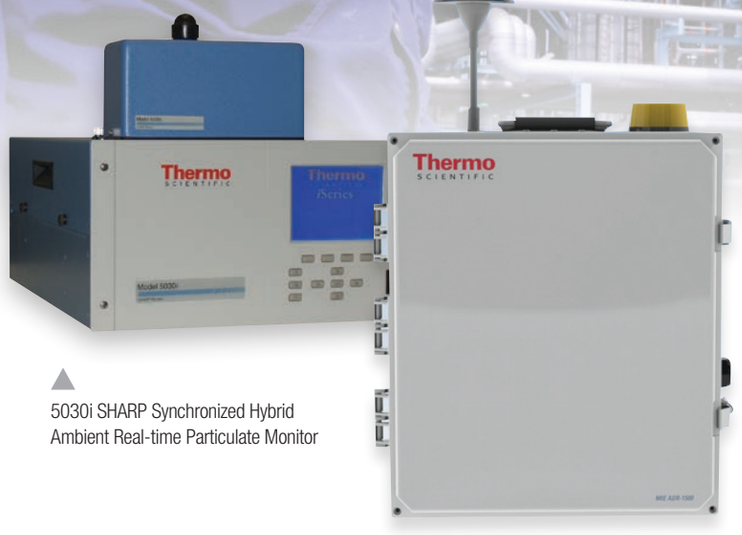
We provide monitoring instrumentation for the presence of irritating particulates, combustibles, and toxic gases, improving worker and plant safety, with solutions for industrial hygienists to first responders, in a wide range of situations, including occupational health and safety applications.

Particulate Monitoring

Our line of Thermo Scientific particulate monitoring instrumentation includes various industry-proven methods such as light scattering, impaction and TEOM™ technology.

APPLICATIONS

- Fugitive dust
- Monitoring dust industrial and material-handling facilities
- Remediation projects
- Indoor air, exposure chamber, and industrial-hygiene measurements
- Coal-dust monitoring (CWP black lung avoidance)
- NIOSH method 0500 and 0600 monitoring
- Aerosol research
- Epidemiology studies
- Pharmaceutical
- Special studies
- Superfund and brownfield monitoring



5030i SHARP Synchronized Hybrid Ambient Real-time Particulate Monitor

ADR1500 Area Dust Monitor

Fixed Monitoring

Our Fixed Particulate Detection instruments offer real-time particulate monitoring with remote capabilities that are ideal for site remediation or perimeter monitoring. With semi and truly continuous solutions, the Thermo Scientific Fixed Particulate Detection instruments provide reliable and accurate results.

Precise, Real-Time Measurements

Light-scattering photometry is a highly sensitive and precise approach to particle monitoring. The intensity of the light scattered by airborne particles passing through the sensing chamber is linearly proportional to their concentration and can provide real-time measurements, which in turn may be compared to a gravimetric standard to validate actual mass.

The **Thermo Scientific™ ADR1500 Area Dust Monitor** incorporates the principles of true volumetric flow control with light-scattering technology to offer accurate sample volume and precise particle-cut points. Housed in a weather-proof IP65 enclosure, this compact and durable instrument is ready for rapid deployment and unattended operation.

The **Thermo Scientific™ Model 5030*i* SHARP Synchronized Hybrid Ambient Real-time Particulate Monitor** combines the speed of light-scattering Nephelometery with the accuracy of beta-attenuation technology for continuous PM-10 and PM-2.5 measurement.

Portable Monitoring

No matter the workplace environment or the application, the ability to quickly identify unsafe particulate levels for personal exposure is critical in the prevention of health effects. Respirable particles can settle deep in the lungs, potentially resulting in serious health and respiratory problems. The hazards associated with particulate exposure exist within both the concentration of the particulate and the size. Numerous portable particulate monitoring solutions are available to address both particle size and concentration in real time, offering unprecedented precision and field-proven, reliable results.

Personal DataRam
Model pDR1500

Certifications and Approvals:

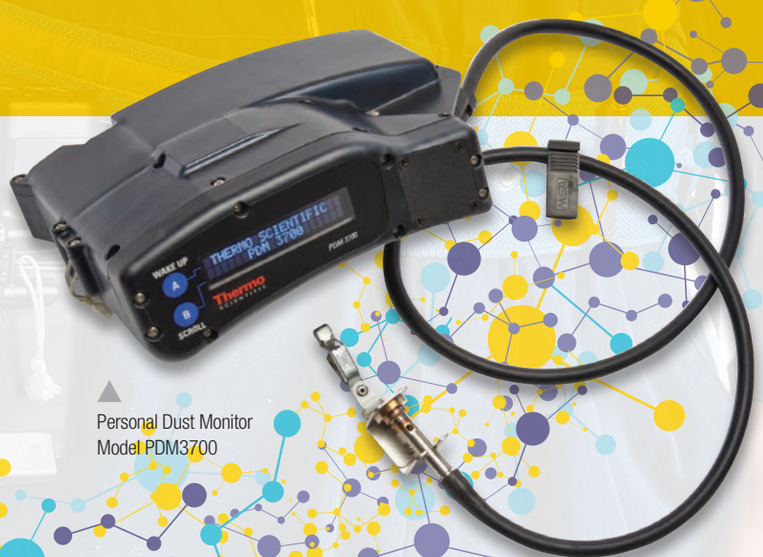
Personal DataRam pDR-1000AN Monitor: MSHA Approval #2G-4126-0 A&CC Par #85832

PDM3700 Personal Dust Monitor: MSHA Approved # – 18-A140015-0, NIOSH Approved #TC-74CPDM-02 and State of Pennsylvania Approval #BFE 2-15

Accurate, Real-Time Results

Also utilizing light-scattering photometry, our portable particulate monitors offer real-time, accurate results with superior particle-cut points delivered through volumetric flow control and precision cyclones.

The **Thermo Scientific™ pDR series** of personal DataRAM monitors were developed to meet the need for passive and active sampling. These were designed for portable operation using commercially available batteries, making field operation easy.



Personal Dust Monitor
Model PDM3700

Impaction

The **Thermo Scientific™ Andersen Series of Viable and Non-Viable Cascade Impactors** is the original design cited in the US Pharmacopia reference for airborne particle sizing. Our Andersen Cascade Impactors allow aerosols to be classified by size distribution through extensive precise orfices, enabling comprehensive aerosol definition and providing extremely sharp "cut-points". Impactors are available in single, two, and six stage viable as well as a non-viable eight stage.

Eight-Stage Non-Viable Andersen
Cascade Impactor

Tapered Element Oscillating Microbalance (TEOM™)

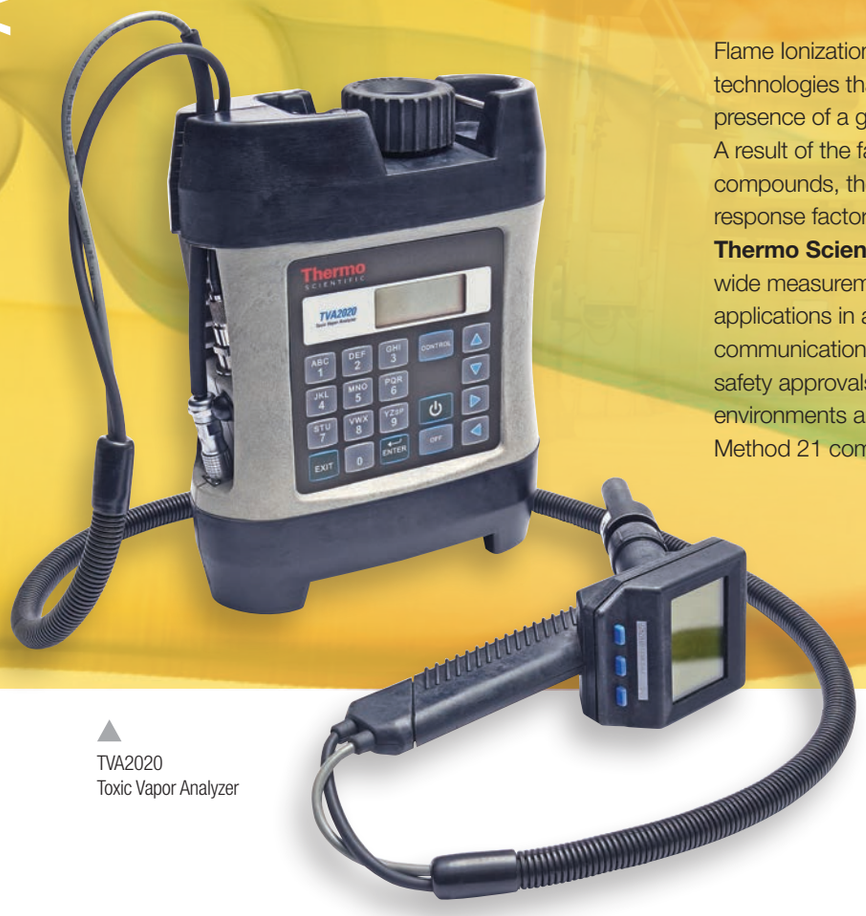
Our proprietary TEOM™ technology is available in a portable monitor, the Thermo Scientific PDM3700 Personal Dust Monitor, for use in underground coal mines for continuous personal measurement of coal dust. Minimizing exposure to coal dust is a critical element in the reduction of Coal Worker Pneumoconiosis. The TEOM™ technology provides real-time mass measurement with 30 and 15 minute averaging, as well as the logging of key parameters, within tough operating environments to help miners avoid over exposure.

Portable Gas Detection

Our Portable Gas Detection instruments enable detection of single or multiple gases, known and unknown. These portable instruments can protect industrial workers from exposure to hazardous gases by detecting a wide range of toxic chemicals. We offer unique products designed for field versatility, flexibility and battery-powered portability to provide the critical information you need for quick response identification and analysis based on laboratory technologies.

APPLICATIONS

- Method 21 compliance (LDAR)
- Emergency response
- Environmental cleanup sites
- Monitoring industrial and material-handling facilities
- Remediation projects
- Indoor air quality monitoring
- Waste anesthetic monitoring



▲ TVA2020
Toxic Vapor Analyzer

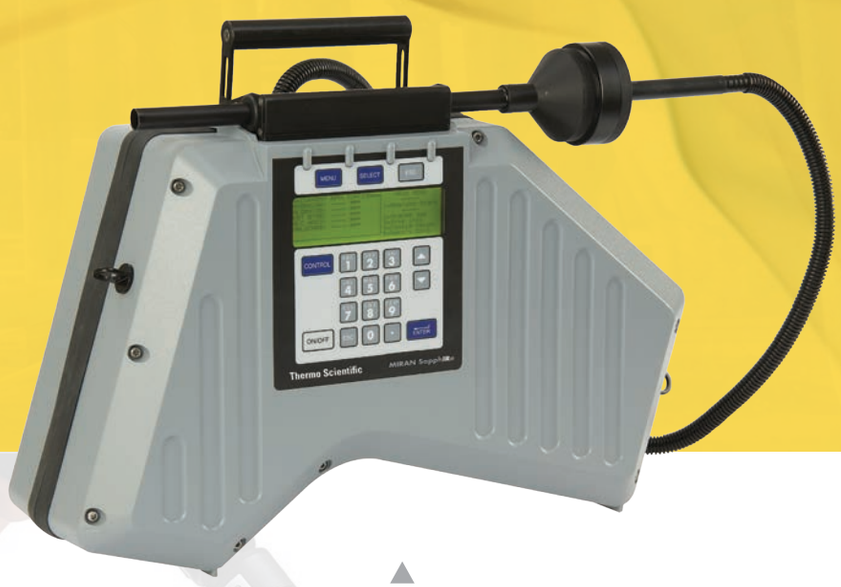
Quantitative Detection

Flame Ionization and Photoionization are two field-proven technologies that are utilized to quickly identify and quantify the presence of a gas by comparison to a linear calibration gas. A result of the fast response and ability to detect virtually all compounds, the raw response can be combined with relative response factors to provide compound specific results. Our **Thermo Scientific™ TVA2020 Toxic Vapor Analyzer** offers a wide measurement range to satisfy a variety of field monitoring applications in a light-weight instrument with Bluetooth communication. The TVA2020 analyzer also carries intrinsic safety approvals, permitting you to enter potentially explosive environments and is also U.S. Environmental Protection Agency Method 21 compliant.

Specified Detection

The **Thermo Scientific™ MIRAN SapphIRe Portable Ambient Analyzers** are a family of portable, lightweight infrared instruments that can monitor ambient air in workplace environments for the purpose of detecting the presence of gases. The Non-Dispersive Infrared technology utilizes folded path-length optical measurements to provide precise results in near-real time. Use of a variable infrared blocking filter permits measurement of multiple wavelengths, interference avoidance, simultaneous measurement of multiple compounds, and performs spectral scanning to aid in the identification of unknowns.

Expanding the versatility of the MIRAN SapphIRe analyzer, the instrument can be configured with one or two additional options. Model options include intrinsic safety and Thermo Scientific ThermoMatch™ Spectrum Correlation Software for spectral scanning.



▲ MIRAN SapphIRe Portable Ambient Analyzer

Service and Support

Tailored to our customer's technical and budgetary needs, our expert service team can provide a wide range of services and support. This will help our customers to maintain required up-time and data accuracy to meet federal, state and local monitoring regulations.

Our Technical Support, Customer Service and Depot Repair teams are trained using hands-on, class room and real-world application techniques, ensuring you get the right answer the first time, every time. These services include application and maintenance training, depot repair, calibration certification services, and applications support.

www.thermoscientific.com/EPMservice

CHOOSE THE RIGHT SERVICE SOLUTION TO MEET YOUR NEEDS

- Preventative maintenance contracts
- Extended warranties and service contracts
- Spare parts and programs
- Factory repair service
- On-site and factory training
- Technical and customer service phone support
- Technical support

Contact us:

Phone: **1-508-520-0430**
Fax: **1-508-520-1460**
Email: **customerservice.aqi@thermofisher.com**

For more information, go to **www.thermosicientific.com**

thermoscientific.com

This product is manufactured in a plant whose quality management system is ISO 9001 certified.

USA
27 Forge Parkway
Franklin, MA 02038
Ph: (866) 282-0430
Fax: (508) 520-1460
customerservice.aqi@thermofisher.com

India
C/327, TTC Industrial Area
MIDC Pawane
New Mumbai 400 705, India
Ph: +91 22 4157 8800
india@thermofisher.com

China
+Units 702-715, 7th Floor
Tower West, Yonghe
Beijing, China 100007
+86 10 84193588
info.eid.china@thermofisher.com

Europe
Takkebijsters 1
Breda Netherlands 4801EB
+31 765795641
info.aq.breda@thermofisher.com

Thermo SCIENTIFIC
A Thermo Fisher Scientific Brand

EPM_OEHBro_0215