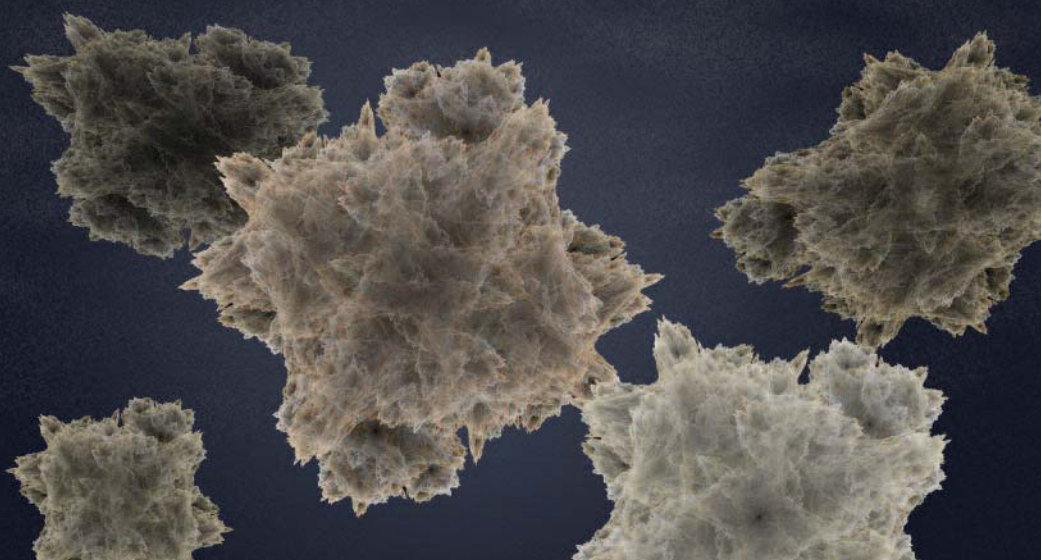


Ambient air monitoring.

**More capabilities. More options.
Greater ease.**

**Thermo Scientific
TEOM 1405
Ambient Air
Monitoring Series**



Ambient air monitoring that delivers more...

The Thermo Scientific TEOM 1405 Ambient Air Monitoring Series

Built on proven Tapered Element Oscillating Microbalance (TEOM) and Filter Dynamics Measurement System (FDMS) technologies, this line offers expanded capabilities, dramatically improved ease of use and a full spectrum of monitoring options.

TEOMs provide NIST traceable direct mass measurements which circumvents uncertainties inherent in surrogate techniques such as beta attenuation, light scattering and pressure drop. The FDMS option provides the ability to account for the volatiles and semi-volatiles.

The control unit, sensors and optional FDMS are all enclosed in a compact, single-unit, network-ready design.

Expanded capabilities

The 1405 series has the ability to measure PM-2.5, PM-10 and PM-Coarse individually and combined. The FDMS adds the capability to account for volatiles for all three measurements.

Multiple data outputs

Default outputs are a running one-hour and 24-hour average mass concentration updated every six minutes. Averaging times are user-programmable from 30 minutes to 23 hours.

High precision, high accuracy

- Precision: $\pm 2.0 \mu\text{g}/\text{m}^3$ (1-hr avg)
 $\pm 1.0 \mu\text{g}/\text{m}^3$ (24-hr avg)
- Mass measurement accuracy: $\pm 0.75\%$

Easier operation

Touch-Screen GUI interface quickly and intuitively accesses:

- System status
- TEOM data (Pollutant Concentration Data)
- Settings
- Instrument conditions

Flexible communications options

- ePort and RPCOMM software for local and remote menu manipulation – using Ethernet or serial ports
- 4 user-definable analog input channels
- 8 user-definable analog output channels
- 2 USB ports for downloading historical data to portable USB drives

Interactive calibration and maintenance tools

A service screen provides access to software wizards which walk the user through calibration and maintenance procedures with detailed instructions and pictures.

Contact closure circuits for alerts

Two user-definable contact closure circuits open or close when defined conditions occur. The default settings are to status conditions and filter loading percentage.

Systems diagnostics

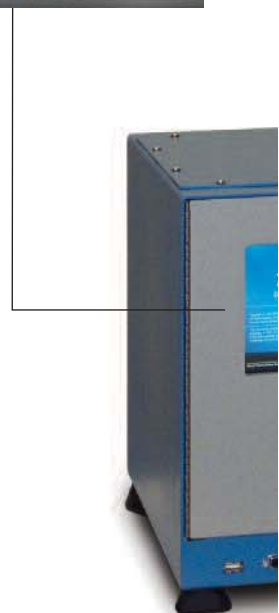
Error codes appear on the main menu screen. System diagnostics data are stored in an internal database to help Thermo Fisher Scientific service representatives assist the customer.

Simplified hardware

Distributed bus processing gives the electronics a modular design for faster, more-affordable repairs.

Filter Dynamics Measurement System (FDMS)

Touch-screen interface for fast, easy navigation.





...Plus a new level of choice

The 1405-DF - maximum knowledge

The most comprehensive option is the 1405-DF – a dual flow TEOM instrument with FDMS capable of simultaneous measurement of PM-2.5, PM-10 and PM-Coarse including volatiles.

Below a PM-10 inlet, the sample stream is split by a virtual impactor into PM-Coarse and PM-2.5 sample streams. Both streams pass through the FDMS before impacting separate filters, where direct mass measurement is performed by individual TEOMs.

Addition of the PM-Coarse and PM-2.5 mass concentrations provides the total of PM-10. (*PM-Coarse = sizes between PM-10 and PM-2.5*)

A range of instruments to meet site-specific requirements

For varied site needs, there are other models to match your application, while offering all the advantages of this series. See the table below for all configurations.

Table 1 - Capabilities by instrument

Model 1405 Single Flow TEOM	Measures PM-2.5 or PM-10
Model 1405-D Dual Flow TEOM	Measures PM-2.5, PM-Coarse and PM-10
Model 1405-F Single Flow TEOM with FDMS	Measures PM-2.5 or PM-10, and accounts for volatiles and semi-volatiles
Model 1405-DF Dual Flow TEOM with FDMS	Measures PM-2.5, PM-Coarse and PM-10, and accounts for volatiles and semi-volatiles

A single TEOM is dedicated to each particle diameter size measured. Either one or two will be present depending on the specific model.





Expanded Technical Support coverage

Our highly trained and experienced technical support team is ready to provide application expertise and work with you to determine the product and configuration that best meet your needs. The team is also there to troubleshoot instruments.

Customer service

Our customer service team processes orders and provides status of current orders, as well as handling pricing and availability of product. Our international customer service team is export-compliant trained and extremely experienced in shipping to all regions of the world.

Call us

Our team can be reached between 8:00 AM and 8:00 PM, Monday through Friday, Eastern Standard Time, by calling 866-282-0430 or 508-520-0430. Or fax us at 508-520-2800.

For more information about the Thermo Scientific TEOM 1405 Ambient Air Monitoring Series, or any of our other monitoring solutions, please visit www.thermo.com/air.

For ordering information, please contact your local dealer or Thermo Fisher Scientific representative.

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