Your Flow Meter
Redefined

Introducing our all-in-one gas mass flow meter

Screen 4:
≡ ⓘ TSI 5000 Series 🔔
AIR▸ Meter Volume
⏸
🔄 LOG
41.0 %RH
40.18 Std L/Min
26.4 °C 98.64 kPa

Screen (O2):
≡ ⓘ TSI 5000 Series 🔔
O2 Meter Volume
◼
1.12 Std L
End Trigger Reached
Begin Trigger 1 | Flow Continuous | End Trigger 1

5000 Series
≡ ⓘ TSI 5000 Series 🔔
AIR▸ Meter Volume
⏸
🔄 00:00:11
4.07 cmH2O
82.33 Act L/Min
28.4 °C
98.66 kPa

TSI

① ② ③ ④
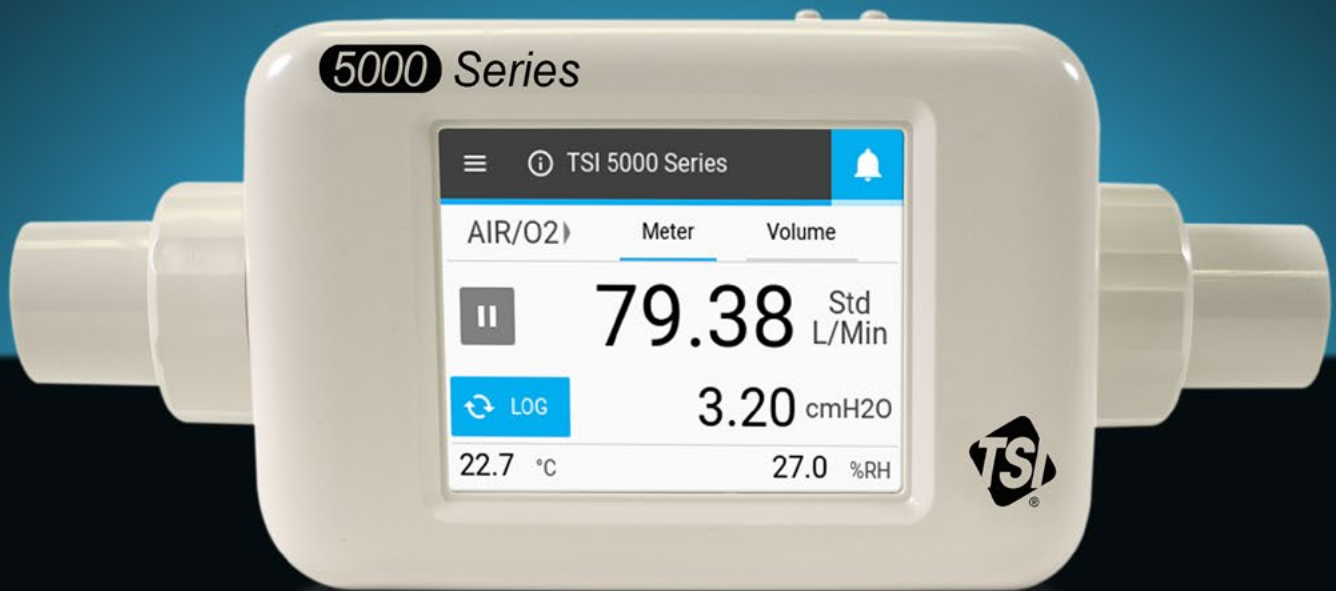
1 Multiple Integrated Measurements

Flow | Temperature | Absolute Pressure | Volume | Low Differential Pressure | Humidity

The measurements you need, in one device.

Our all-in-one Flow Meter offers the option to combine flow, temperature, absolute pressure, volume, low differential pressure, and humidity measurements in a single device. In addition to simplifying your test setup, you are also saving time and money by not purchasing and maintaining multiple instruments.

2 Fits Your Application

Let our new flow meter fit your unique application.

Our new all-in-one Flow Meter fits into your test setup, with its user-configurable tube ends, wide operating range, and lightweight, compact design.

3 Easy to Use Touchscreen Display

Quickly and easily configure measurements and device settings directly from the flow meter's large, color touchscreen display.

You can also view up to four readings simultaneously, as well as pause the display to record readings or log the data directly to the instrument.

4 Built-In Data Logger

Save your data to the meter and easily export it using the USB port.

With the 5000 Series, datalogs are saved as CSV files with all measurement data automatically synchronized, which can be exported using a USB flash drive or connected directly to the FLO-Sight™ software.

Operate with FLO-Sight™ PC Software

Use our FLO-Sight Companion Software to do even more with your Meter.

Unlock additional functionality such as viewing real-time graphs, displaying min/max/average data, naming and organizing your flow meters for easier recognition, logging data directly to the computer, setting alarms, and more.

Make the Measurements You Need

Our new flow meter provides bi-directional flow sensing with a best-in-class turndown ratio.

This means you can measure a wide range of flow rates in both directions with a single meter, and is especially useful if your full flow range is unknown or fluctuates widely.

Calibrated and Compensated

For each meter, TSI performs a 10 point NIST-traceable calibration across its entire flow range.

All Meters are compensated to provide a mass flow output independent of temperature and pressure. Some models of the 5000 Series can also compensate for humidity to provide the equivalent dry gas flow.

Features

+ 4 millisecond bi-directional flow response
+ High accuracy (±2% of reading, ±1.7% of reading optional)
+ Low pressure drop minimizes flow back pressure
+ Wide dynamic operating range (1000:1 turndown ratio)
+ Multiple gas calibrations available, user-selectable
+ Measure up to 6 parameters with a single instrument - flow rate, absolute pressure, temperature, volume, differential pressure, and humidity
+ Temperature and pressure compensated, flow measurements, optional humidity compensation
+ 2.8 inch color touchscreen operation
+ Display four measurement parameters simultaneously
+ Configurable tube end connectors
+ Data logging options
+ USB power and data communications
+ NIST-traceable Calibration Certificate included
+ All meters come with power supply, cables, tube end connectors, inlet filter, and FLO-Sight companion PC software

Industries

+ Medical Device Manufacturing and Service
  - Ventilators, CPAPs, Anesthesia workstations, Oxygen concentrators, Nebulizers, Inhalers
+ Light Industrial
  - Valves, pumps, fittings, tubings, regulators, etc.
+ Environmental
  - Sampling pumps
  - Air sampling instrumentation
+ Research & Analytical
+ Aerosol Science

Proven Performance

Our new all-in-one flow meter is built with the same proven technology that's been relied upon for 35+ years.

The 5000 Series utilizes our proprietary platinum film sensor design for measuring gas flows where high accuracy, fast response, and low pressure drop are performance must-haves.

Applications

Researchers, engineers, designers, and scientists use TSI Gas Flow Meters in a variety of applications such as:

+ Product Development
+ Manufacturing
+ Quality Assurance
+ Research
+ Metrology
+ Field Service

FLO-Sight PC Software

Get the most out of your new all-in-one TSI Flow Meter with FLO-Sight PC Software, our 5000 Series companion software.

You can now couple the real time analytics and data visualization of FLO-Sight software with the industry-leading response rate and ultra-low pressure drop of our 5000 Series Flow Meters to gain valuable insights and truly understand your flows.

Optional FLO-Sight basic software is included with the purchase of a 5000 Series Multi-Meter and provides these features:

+ Real-time display of all measurement parameters including totalizer
+ Min, max, and average readings
+ Advanced meter configuration

Optional FLO-Sight advanced software features include:

+ Real-time graphing
+ Data logging, download, and file management
+ Alerts set for any parameter
+ Multiple meter operation

A free trial of FLO-Sight software's advanced features is included with the Series 5000 Flow Meter. The advanced version can be purchased through the software itself or at **www.tsi.com**.
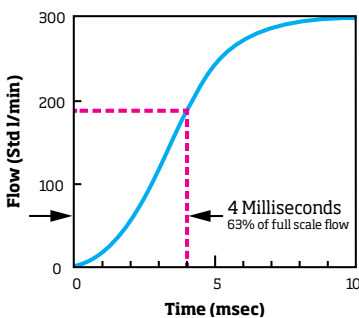
See your flows as you've never seen them before with FLO-Sight software.
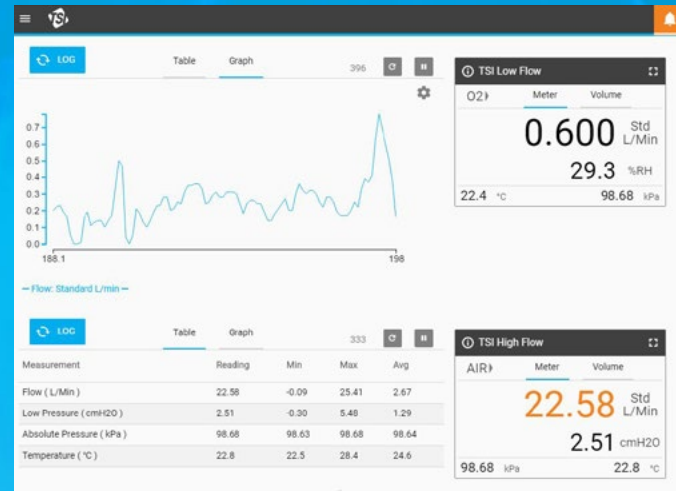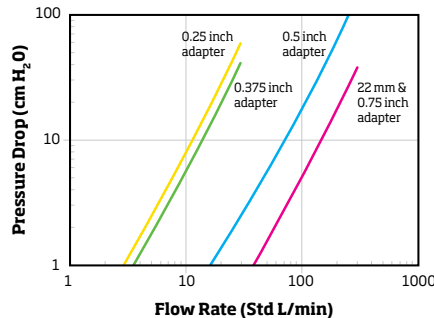

Proven Performance

All TSI meters come with our unique platinum film sensor, providing highly accurate readings, fast response time, and low pressure drop.

Response to a Step Change in Flowrate

Flow (Std l/min) vs Time (msec)

4 Milliseconds
63% of full scale flow

5000 Series Pressure Drop

Pressure Drop (cm H₂0) vs Flow Rate (Std L/min)

0.25 inch adapter, 0.5 inch adapter, 0.375 inch adapter, 22 mm & 0.75 inch adapter

% of Reading vs .% of F.S.

Actual Flow (L/min)

2% of Reading
2% of Full Scale

Fast
Fast 4 millisecond response ensures accuracy in fluctuating flows. This fast response is ideal for closed-loop control systems and integrated volume measurements. Pressure and temperature measurements are also extremely fast.

Low Pressure Drop
Low pressure drop minimizes flow circuit back pressure and its impact on the system under test.
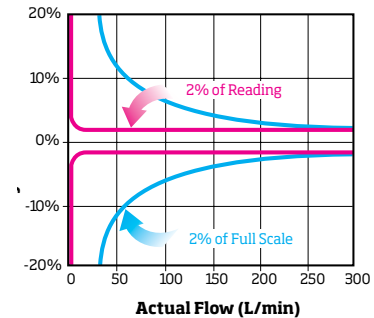
Accurate
A flowmeter specified as ±2% of full scale is most accurate at full scale. If full scale is 300 L/min, then the uncertainty for all readings is ±6 L/min. TSI flow meters are specified as ±2% of reading and have an uncertainty of ±2% of the actual reading from full scale all the way down to a specified lower limit. TSI flow meters, therefore, provide dependable accuracy over a wide range of flow rates. One TSI flowmeter covers the same range as three or more "percent of full scale" devices... with better accuracy at all points!

Model Selection Guide

Step 1

What is the range of your flows?	5200 Series	5300 Series
Flow Range	0-30 Std L/min	0-300 Std L/min

Step 2

What features do you want?	Base Models (5200, 5300)	Advanced Models (5210, 5310)	Humidity Models (5220, 5320)	High Accuracy Models (5230, 5330)	Wide Accuracy Models (5203, 5303)
Flow, Totalizer Measurements	+	+	+	+	+
Temperature, Absolute Pressure Measurements	+	+	+	+	+
Volume Measurement (Displayed on screen)		+	+	+	
Differential Pressure Measurement		+	+	+	
Data Logging		+	+	+	
Relative Humidity Measurement			+	+	
Humidity Compensation			+	+	
Higher Accuracy (1.7% of reading)				+	
Tabletop Stand Included				+	
Wide Accuracy Spec (3% of reading)					+

Step 3

What gases need to be measured?	Air, N_2	Air, O_2, Air/O_2 mix, N_2	Air, CO_2, N_2	O_2 Only	CO_2 Only
5200 Series Low Flow					
Base Models	5200-1	5200-2	5200-3	5200-6	5200-7
Advanced Models	5210-1	5210-2	5210-3	5210-6	5210-7
Humidity Model		5220-2			
High Accuracy Model		5230-2			
Wide Accuracy Spec Model		5203-2			
5300 Series High Flow					
Base Models	5300-1	5300-2	5300-3	5300-4	5300-5
Advanced Models	5310-1	5310-2	5310-3	5310-4	5310-5
Humidity Model		5320-2			
High Accuracy Model		5330-2			
Wide Accuracy Spec Model		5303-2			

To see an interactive model selection guide,

Please visit our online tool at **tsi.com/5000-Series-Flow-Meters/Selection-Guide**

Accessories

5300 Series Optional Accessories

	Description	Part Number
●	Inlet Filter – Low Pressure	5300-IF-LP
	Inlet Filter – High Pressure	5300-IF-HP
●	22mm M to 15mm F ISO Tube Ends (2)	5300-22MM
●	1/2 Inch Tube Ends (2)	5300-05IN
	15mm ISO Tube Ends (2)	5300-15MM
	3/4 Inch Tube Ends (2)	5300-075IN
	High Pressure 3/8 Inch NPT Tube Ends (2)	5300-375NPT
	High Pressure Kit	5300-HPK

5200 Series Optional Accessories

	Description	Part Number
○	Inlet Filter 3/8 Inch – Low Pressure	5200-IF-0375IN
○	Inlet Filter 1/4 Inch – Low Pressure	5200-IF-025IN
○	3/8 Inch Tube Ends (2)	5200-0375IN
○	1/4 Inch Tube Ends (2)	5200-025IN
○	10mm Tube Ends (2)	5200-10MM

5000 Series Universal Optional Accessories

	Description	Part Number
	Tabletop Stand	5000-TTS
○●	USB-C to USB-A Power/Communication Cable	5000-USBC-A
	USBC to USB-A Cable with Screw Lock	5000-USB-LOCK
	USB-RS232 Communications Cable	5000-RS232
○●	USB Hub Cable	5000-HUB
○●	Universal Power Supply	5000-UPS
	Wall Mounting Kit	5000-WMK
	Wall Mounting Din Rail Kit	5000-WMDRK
	Deluxe Carrying Case	5000-DCC
	FLO-Sight PC Software (Advanced Version)	5000-PC-ADV

To Order a Flow Meter or Any of Our Accessories

Please visit our website at **tsi.com/5000-Series-Flow-Meters** and place an order through our e-commerce site,
or call TSI at one of the numbers listed below.
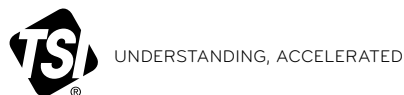
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