Gas Flow Multi-Meter

5200 Series

Quick Start Guide

P/N 6012621, Revision C
May 2023

Instrument Kit Components

5200 Series Low Flow Gas Multi-Meter
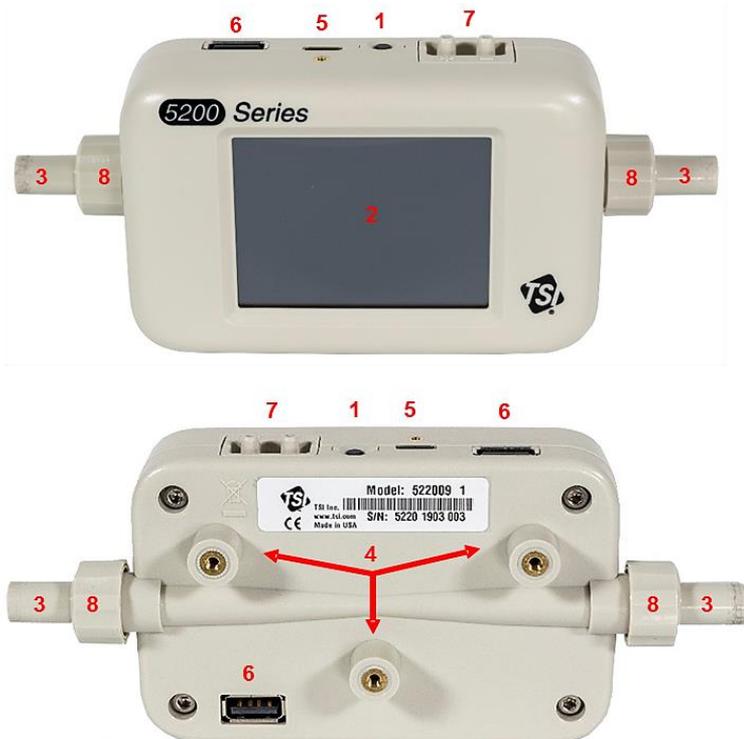
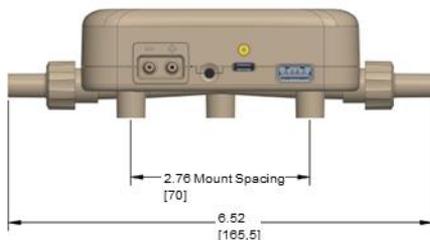| Qty	Item Description	Part/Model
1	Low Flow Gas Flow Multi-Meter, 3/8-inch tube ends Measures Flow, Temperature, Absolute Pressure	5200
	Low Flow Gas Flow Multi-Meter, 3/8-inch tube ends Measures Flow, Volume, Temperature, Absolute Pressure, Differential Pressure	5210
	Low Flow Gas Flow Multi-Meter, 3/8-inch tube ends Measures Flow, Volume, Temperature, Absolute Pressure, Differential Pressure, Relative Humidity	5220
	Low Flow Gas Flow Multi-Meter (High Accuracy), 3/8-inch tube ends, includes Tabletop Stand Measures Flow, Volume, Temperature, Absolute Pressure, Differential Pressure, Relative Humidity	5230
	Low Flow Gas Flow Multi-Meter (Wide Accuracy Spec), 3/8-inch tube ends Measures Flow, Temperature, Absolute Pressure	5203
1	Calibration Certificate	N/A
1	5200 Series Standard Accessory Kit	52000
1	Low Pressure Measurement Kit (5210, 5220, 5230 models only)	5200-LPMK
1	License key for FLO-Sight™ PC Software (*Includes a free trial of the advanced version*)	5000-PC

*FLO-Sight software can be downloaded from www.tsi.com.

Download Operator's Manual at TSI.com

Instrument Overview

1. Power Button (On/Off)	5. USB-C Power/ Communications Port
2. Color Touchscreen Display*	6. USB-A Communications Ports (2)
3. Interchangeable Tube Ends	7. Low Differential Pressure Ports (5210/5220/5230 models only)
4. Mounting Inserts (M3 thread)	8. Collars

Dimensions shown in inches [mm]

Setup Basics

Supplying Power

Connect the USB cable from the USB-C port on the meter to the USB-A port of: 1) the 5000 Series power supply, 2) a computer, or 3) other USB sources that can provide 5 VDC.

USB Hub Cable

Some computer USB ports are not capable of sufficiently powering up the Meter. If you are unable to power your Meter from the computer, connect the USBC-A power cable to the provided USB hub cable and plug the hub cable into the computer.

Turning Meter ON/OFF

The Meter may power itself on when connected to a power source. If not, press the power button to turn the Meter on. To turn the meter off, press and hold the power button for 5 seconds.

Connect Inlet Filter

TSI® recommends an inlet filter be used at all times while operating the Flow Multi-Meter.
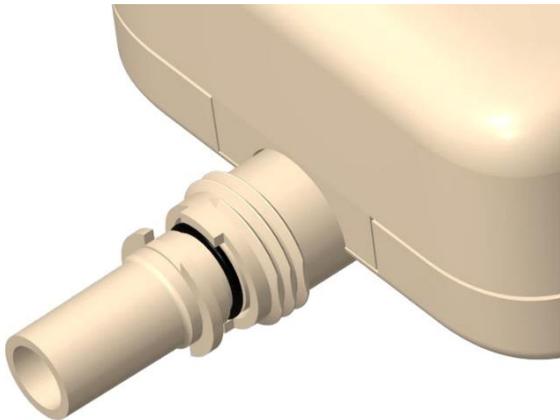
Changing Tube Ends

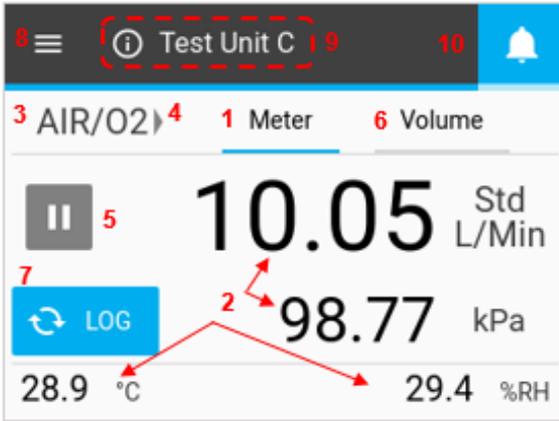1. Unscrew collars and remove tube ends.

2. Insert replacement tube ends into the meter while aligning the anti-rotation locking notch on the tube end with the tab on the meter.

3. Screw collars back onto the meter.

Touchscreen Display Overview

Meter Home Screen

1. Meter Home Tab	6. Volume and Triggers Tab *
2. Measurement Readings	7. Log Data Button *
3. Type of Gas	8. Menu Dropdown Screen
4. Flow Directional Indicator	9. Device Name and Information
5. Pause Display Button	10. Alerts Indicator

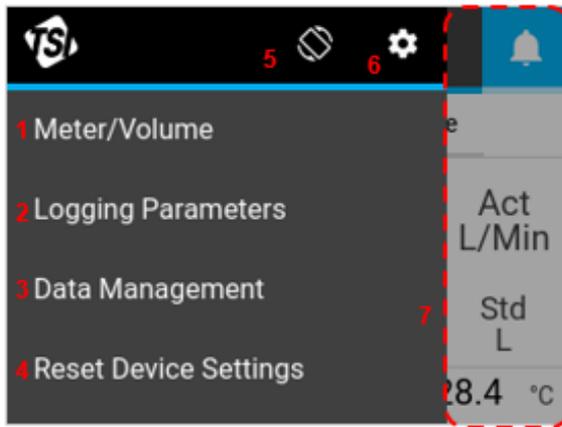*Available on 5210, 5220, and 5230 models only

Pause Display Button

The **Pause** Button is used to pause the display from updating. The current measurement values will remain fixed on the screen. The Meter will continue to make measurements while paused, and pausing the display does not affect any active datalog sessions.

When paused, the button's icon will change to a play icon ▶.

Press the button again to resume display updates.

Touchscreen Display Overview *(continued)*

Menu Screen

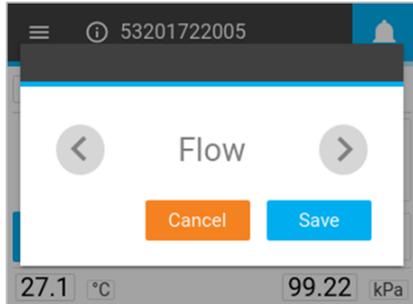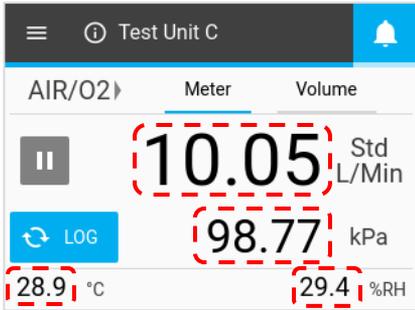|			
1.	Go to Meter Home Screen	5.	Rotate Display 180º
2.	Set Logging Parameters *	6.	Settings Menu
3.	Data Management *	7.	Press anywhere outside menu to close menu screen
4.	Reset Device Settings		

*Available on 5210, 5220, and 5230 models only

Touchscreen Display

The touchscreen display is resistive and responds to pressure from your finger or other objects. You can also operate the Meter while wearing gloves.
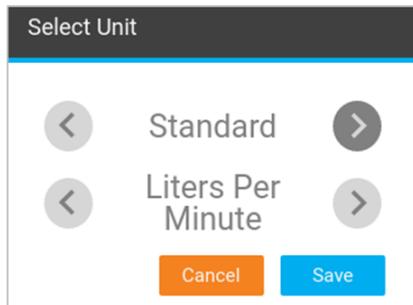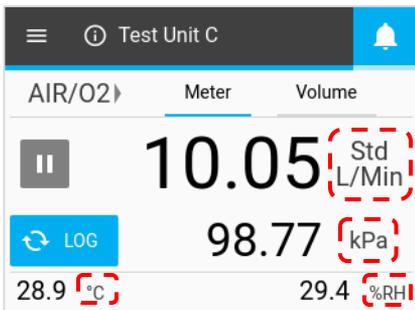
Configuring the Meter

Measurement Parameters

Press a value field, use the scroll arrows to select a parameter, and click **Save**.
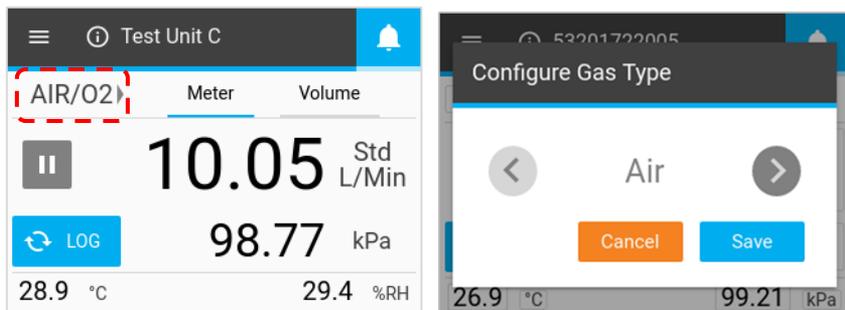

Units of Measurement

Press a units field, use the scroll arrows to select the desired units, and click **Save**.

Configuring the Meter *(continued)*

Type of Gas

Press the type of gas field, use the scroll arrows to select the type of gas, and click **Save**.

NOTICE
If an Air/Oxygen mix is selected, the Meter assigns a 21% oxygen mix. The oxygen concentration can be customized using FLO-Sight™ Software.

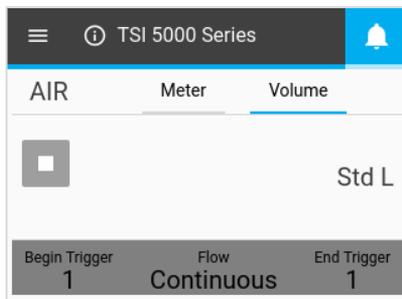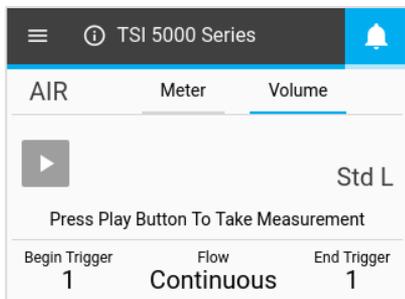# Volume and Triggers

(Models 5210, 5220, and 5230 only)

Volume is a calculated measurement that integrates flow over time and is controlled through triggers. You can set begin and end triggers for volume measurements using flow rate, absolute pressure, or low differential pressure values.

Setting Triggers

The meter must be stopped to edit trigger settings. On the **Volume tab**, confirm that the Meter is stopped (shown below left) and press on the field you would like to edit.

If a volume measurement is active (shown below right), then press the **Stop** ◻ button to cancel the measurement and allow edits to be made to trigger settings.
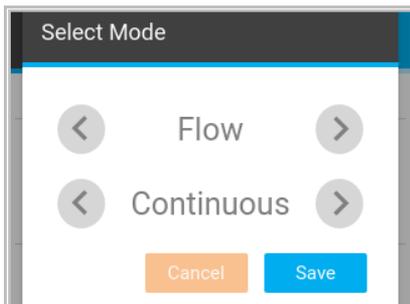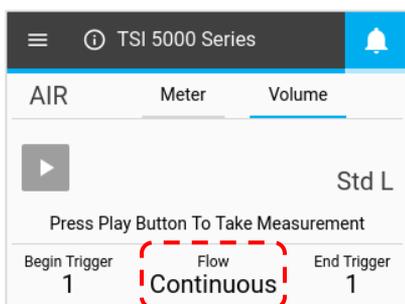
Volume and Triggers *(continued)*

In the **Select Mode** screen, you can choose:

Trigger Parameter	Flow, Absolute Pressure, or Low Pressure
Test Mode	Single or Continuous

Use the arrows to scroll through the selection options and click **Save** to complete.
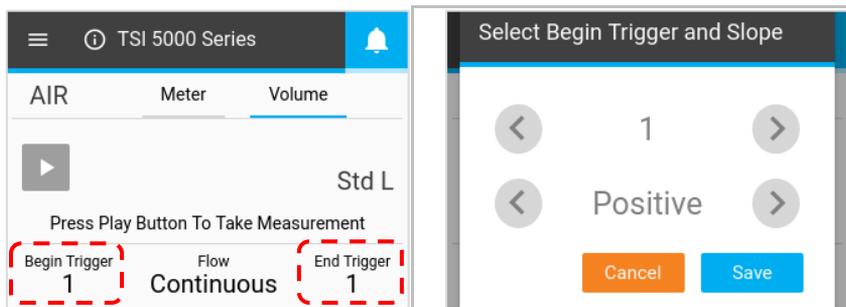

In the **Select Trigger** screens, you can choose:

Begin / End Trigger Values	Select from available values
Begin / End Trigger Slopes	Positive or Negative

Note trigger options for the volume begin and end triggers. These are set as the default options and cannot be changed by the user.

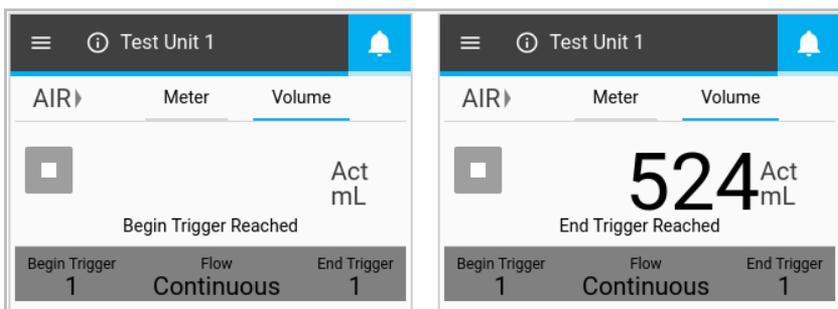| Trigger	Units	Trigger Values
Flow	Std L/min	+/– 0.1, 0.5, 1, 2, 3, 5, 7.5, 10, 20
Absolute Pressure	kPa	90, 95, 98, 100, 102, 104, 107, 110
Low Differential Pressure	cmH$_2$O	+/– 0.5, 1, 2, 3, 4, 5, 10

Volume and Triggers *(continued)*

Making Volume Measurements

Once all settings have been saved, press the **Play** button to lock editing and begin making volume measurements.

The Multi-Meter will notify you on screen when the begin trigger, and then end trigger, is reached. Once the end trigger has been reached, the Meter will deliver the volume measurement.

Knowledge Beyond Measure.

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