

## Certifier® FA Test System for Gas Flow Analysis

TSI, a worldwide leader in air and gas flow measurement technology, introduces the first truly portable device for measuring flow, pressure, oxygen concentration and multiple breathing parameters needed for testing medical devices in institutional, home care, field service and laboratory applications.

### The Certifier® FA Test System is:

- **Affordable**—1/3 cost of competitive instruments
- **Lightweight**—but rugged
- **Portable**—powered by 4 AA batteries
- **Easy to use**—keypad menus and large display screen

The following capabilities make Certifier FA Test Systems ideal for biomedical testing applications, including ventilators (hospitals and home care), oxygen concentrators and anesthesia delivery systems.

- Flow
- Peak Flow
- Volume
- Minute Volume
- Inspiratory Time
- I:E Ratio
- Respiratory Rate
- Pressure
- Peak & PEEP Pressure
- Barometric Pressure
- Oxygen Concentration (with optional Model 4073 Oxygen Kit)

**Certifier FA Test Systems meet international standards.**

**CE** CE marking of European Conformity for the Low Voltage Directive (LVD) and the Directive for Electromagnetic Compatibility (EMCD).

**UL LISTED** Safety approvals for Canada by Underwriter's Laboratories Inc. (UL).



Actual size: 5.2 inches × 2.8 inches × 1.3 inches  
132 mm × 71 mm × 33 mm



Controller with high and low flow

## Specifications

<b>Flow and Peak Flow</b>	<b>Range and Accuracy (whichever is greater)</b>
High Flow Air or O <sub>2</sub>	0 to 300 standard L/min; ±2% of reading or ±0.075 standard L/min
High Flow Air/O <sub>2</sub> Mix	0 to 300 standard L/min; ±4% of reading or ±0.075 standard L/min
Low Flow Air or O <sub>2</sub>	0.01 to 15 standard L/min; ±2% of reading or ±0.010 standard L/min
Low Flow N <sub>2</sub> O	0.01 to 15 standard L/min; ±4% of reading or ±0.010 standard L/min
<b>Volume</b>	<b>Range and Accuracy (liters at standard temperature and pressure)</b>
High Flow Air or O <sub>2</sub>	0 to 10 L STP; ±2% of reading or ±0.075 L STP
High Flow Air/O <sub>2</sub> Mix	0 to 10 L STP; ±4% of reading or ±0.075 L STP
Low Flow Air or O <sub>2</sub>	0 to 9.999 L STP; ±2% of reading or ±0.010 L STP
Low Flow N <sub>2</sub> O	0 to 9.999 L STP; ±4% of reading or ±0.010 L STP
Minute Volume	0 to 99 L STP; ±7% of reading
<b>Low Pressure</b>	
High Flow Module	-25 to 150 cm H <sub>2</sub> O; ±0.75% of reading or ±0.20 cm H <sub>2</sub> O
Low Flow Module	Not applicable.
<b>Breath Rate</b>	<b>Range and Accuracy</b>
Respiratory Rate	0.5 to 120 BPM; ±5% of reading
I:Time	0.25 to 60 seconds; ±0.01 seconds
I:E Ratio	
High Flow	1:100.0 to 100.0:1; ±5% of reading
Low Flow	1:15.0 to 15:0:1; ±5% of reading
<b>Other Measurements</b>	
Barometric Pressure	375 to 1500 mm Hg; ±8 mm Hg
Oxygen	0 to 100% O <sub>2</sub> ; ±2% O <sub>2</sub> at calibration conditions

Specifications are subject to change without notice.



## Certifier FA Test Systems

Model 4070 High Flow Standard Kit  
Model 4075 Low Flow Standard Kit

Controller Module and High Flow Module.

Controller Module (Model 4078) and Low Flow Module (Model 4074).

(Models 4070/4075 include bacteria filter, pressure tubing and adapters, flow module mounting bracket, screwdriver, 4 AA batteries, Operator's Manual, NIST-traceable Certificate of Calibration and soft-sided carrying case.)

Model 4073 Oxygen Sensor Kit

Oxygen Sensor, threaded tee, 8-inch cable. Use with High Flow Module to measure oxygen concentration and other measurements for any mixture of air and O<sub>2</sub>.

## Modules, Replacement Parts and Accessories

Model 4076 High Flow Module

Air or 100% oxygen; Flow range 0 to 300 standard L/min

Model 4072 Low Flow Module

Air, 100% oxygen or 100% nitrous oxide; Flow range 0.01 to 15 standard L/min

Model 4078 Controller Module

Keypad and display allow user to select test measurements and units for display.

Connects to High and Low Flow Modules.

PN 2917019 Oxygen Sensor

Replacement sensor.

1319288 Hard Shell Carrying Case

Holds Certifier FA Test System and accessories

Additional information is available in Operator's Manual, on the internet at <http://flowmeters.tsi.com>, or contact TSI directly.



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