Certifier FA Ventilator Test System for Gas Flow Analysis



Ideal For Hospital, Home-



Certifier FA Plus Ventilator Test System

Certifier FA Plus is the full-feature system capable of testing virtually all models of ventilators: adult, pediatric, anesthesia, neonatal and high-frequency.

Highlights

- Color touch screen graphical user interface
- o Real-time graphing mode
- Bi-directional flow measurement
- Data storage using SD Flash card and internal memory
- Access stored data through USB interface
- Report printing capability
- Rechargeable battery plus AC operation

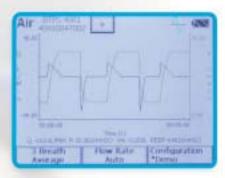
Test Parameters

- o Flow
- Peak & Minimum Flow
- Volume (Inhaled and Exhaled)
- Minute Volume
- Low Pressure (Differential)
- Peak & PEEP Pressure
- Mean Airway Pressure
- High Pressure
- Barometric Pressure
- Inspiratory Time
- Expiratory Time
- I:E Ratio
- Respiratory Rate
- Gas Temperature
- Oxygen Concentration (with optional 4073 Kit)



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Displays up to 18 test parameters



Graph up to 2 test parameters

Certifier FA Plus

Air, O₂, Air/O₂ mixtures, N₂, CO₂, N₂0

Bi-Directional

STP, ATP, BTPS, BTPD, plus user-defined

Yes

1500 BPM

Yes

-10 to 150 PSI (-.7 to 10 bar) Gauge

-25 to 150 cmH₂0 Differential

7 to 25 PSIA (500 to 1700 mbar)

Color-Graphic Touch Screen

Li-Ion Rechargeable Battery Pack

Yes

1 MB

Included

USB

USB



Care, Field Service, Laboratory and Manufacturing



Features	Certifier FA	
Gas Calibrations	Air, O ₂ , Air/O ₂ mixtures, N ₂ O	
Flow Direction	Uni-Directional	
Flow & Volume Modes	STP, ATP, BTPS	
Temperature & Pressure Compensated	Yes	
Max Breath Rate	120 BPM	
High Frequency Ventilators		
High Pressure		
Low Pressure	-25 to 150 cmH20 Gauge	
Barometric Pressure	7 to 30 PSIA (500 to 2000 mbar)	
Display	Fixed Segment LCD	
Batteries	4-AA Alkaline Batteries	
AC Adapter		
Internal Memory		
SD Flash Card		
Computer Interface		
Printing		

Certifier FA Ventilator Test System

Certifier FA is a low-cost test system capable of testing multiple parameters of ventilator performance.

Highlights

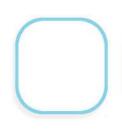
- o Simple, easy to read, user interface
- o Backlit LCD display
- Entire kit weighs less than 3 lbs (1.4 Kg)
- o Volumes and flow in BTPS, ATP, or STP

Test Parameters

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



Displays 2 test parameters









Certifier FA PLUS	Gas/Mode	Range	Accuracy**
Flow—High Flow	Air, O ₂	-200 to +300 slpm*	±2% or ±0.075 slpm
	Air/O ₂ Mixtures	0 to 300 slpm	±4% or ±0.1 slpm
	N_2	-200 to +300 slpm	±3% or ±0.1 slpm
	CO ₂	-40 to +40 slpm	±3% or ±0.1 slpm
Flow—Low Flow	Air, O ₂	0.01 to 20 slpm	±2% or ±0.01 slpm
	N2, CO ₂	0.01 to 20 slpm	±3% or ±0.01 slpm
	N ₂ O	0.01 to 20 slpm	±4% or ±0.025 slpm
Volume-High Flow-Inhaled	Air, O ₂	0.01 to 10 liters STP	±2% Plus 0.02 liters
	Air/O ₂ Mixtures	0.01 to 10 liters STP	±4% Plus 0.02 liters
Volume-High Flow-Exhaled	Air, O ₂	0.01 to 10 liters STP	±3% Plus 0.03 liters
	Air/O ₂ Mixtures	0.01 to 10 liters STP	±4% Plus 0.04 liters
Volume-Low Flow-Inhaled	Air, O ₂	0.01 to 10 liters STP	±2% or ±0.01 liters
	N ₂ O	0.01 to 10 liters STP	±4% or ±0.01 liters
Minute Volume-High Flow		0.01 to 100 liters STP	±3%
Minute Volume-Low Flow		0 to 10 liters STP	±3%
Respiratory Times	Ti, Tip, Te	0.04 to 30 seconds	±2% or ±0.01 seconds
I:E Ratios	I:E, I:Eip	1:100 to 100:1	±4%
Respiratory Rate	f	1 to 1500 breaths per minute	±2% or 0.1 bpm
Low Pressure	All	-25 to +150 cm H ₂ O	$\pm 0.5\%$ or ± 0.15 cm H_2O
High Pressure		-10 to +150 PSI (-0.7 to 10 bar)	±1% or 0.1 PSI (7 mbar)
Barometric Pressure		7 to 23 PSI (500 to 1600 mbar)	±0.16 PSI (11 mbar)
Oxygen Concentration		21% to 100%	2% of concentration

To Order Certifier FA Plus

Model Description

4080 High-Flow Standard Kit

Optional Modules and Accessories

Model 4073

Description Oxygen Sensor Kit

4082

Low-Flow Module

Part # 1208061 Description

Extra battery pack and charger kit

1303860

Printer cable



4080 High-flow test system with 4082 Low-flow kit (sold separately)

*slpm = Standard Liters per Minute **Accuracy stated as a percent of reading at TSI standard gas conditions. See operators manual for more complete specifications

Certifier FA	Gas	Range	Accuracy**
Flow—High Flow Module	Air, O ₂	0 to 300 slpm*	±2% or ±0.075 slpm
	Air/O ₂ Mixtures	0 to 300 slpm	±4% or ±0.1 slpm
Flow—Low Flow Module	Air, O ₂	0.01 to 15 slpm	±2% or ±0.01 slpm
	N ₂ O	0.01 to 15 slpm	±4% or ±0.025 slpm
Volume-High Flow-Inhaled	Air, O ₂	0.01 to 10 liters STP	±2% Plus 0.02 liters
	Air/O ₂ Mixtures	0.01 to 10 liters STP	±4% Plus 0.02 liters
Volume-Low Flow-Inhaled	Air, O ₂	0.01 to 9.999 liters STP	±2% or ±0.01 liters
	N ₂ O	0.01 to 10 liters STP	±4% or ±0.01 liters
Minute Volume-High Flow		0.01 to 99 liters STP	±7%
Minute Volume-Low Flow		0 to 9.999 liters STP	±7%
Inspiratory Time		0.25 to 60 seconds	±0.01 seconds
I:E Ratio- High Flow		1:100 to 100:1	±5%
I:E Ratio- Low Flow		1:15 to 15:1	±5%
Respiratory Rate		0.5 to 120 breaths per minute	±5%
Low Pressure		-25 to +150 cm H ₂ O	$\pm 0.75\%$ or ± 0.2 cm H_2O
Barometric Pressure		7 to 29 PSI (500 to 2000 mbar)	±0.16 PSI (11 mbar)
Oxygen Concentration		21% to 100%	2% of concentration

To Order Certifier FA

Model 4070

Description High-Flow Standard Kit

Optional Modules and Accessories

Model 4073

Description Oxygen Sensor Kit

4072

Low-Flow Module

Part # 1319288 Description

Hard shell carrying case



4070 High-flow test system with 4073 Oxygen sensor kit (sold separately)

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