

# Model 8222

## Analyzer Calibrator

### Features & Benefits

Separate Low Pressure  
and High Pressure Inputs

Separate Low Flow  
and High Flow Inputs

Remote Viewing and Control

Comprehensive Analysis Tools

Dual USB Ports

Dual RS-232 Serial Comm Ports

10/100Base-T Ethernet

Analog XGA Output

S-Video & Composite  
Video NTSC/PAL Outputs

100 Gigabyte Hard Disk Storage

Data Acquisition Subsystem

Open Windows XP® Platform

Universal AC Power Input

Compact and Lightweight

Robust Construction

Keyboard, Interface Cables,  
Mouse, and Mouse Pad Included



The Model 8222 Analyzer/Calibrator is a precision traceable reference standard used to analyze gas flows and pressures either locally or via a remote LAN/WAN connection. This comprehensive test system can save manufacturers a significant amount of time and money in maintaining their equipment. Customer uptime is maximized since equipment no longer needs to be returned to the manufacturer for calibration. Similarly, manufacturers no longer need to provide loaner equipment for their customers, arrange for shipping and logistics, and warehousing of customer equipment.

The instrument's front and rear panel layouts are clear, logical, and non-intimidating to the first time user. The platform is based on the Microsoft Windows XP® Operating System and intuitive Graphical User Interface. This minimizes the amount of time required to master system operation and provides maximum software stability. A mouse, keyboard, and monitor are attached to perform local analysis and calibration while a LAN/WAN connection is all that is needed to perform remote analysis and calibration of customer equipment.

Although dedicated to making accurate flow and pressure measurements, other applications such as MS Word® or Excel®, MATLAB® and LabVIEW® can be installed on the instrument to accomplish local documentation or data analysis. Provisions for connection to devices under test, bar-code readers, webcams, external networks, peripherals, and video displays further enhance the system's versatility. A multichannel data acquisition and storage sub-system is also included. Stored data may be easily retrieved via the system's integral USB or Ethernet connections.

The instrument is robust in construction and meets or exceeds all applicable US and EU electrical safety and environmental standards.

UTILITIES		DESCRIPTION
Flow	Pressure	Low Flow: $\pm 15$ LPM FS, High Flow: $\pm 200$ LPM FS with Selectable Full Scale Range
Units of Measure		Low Pressure: $\pm 150$ cmH <sub>2</sub> O FS, High Pressure: $\pm 150$ PSIG FS with Selectable Full Scale Range
Compensation		Flow: LPM, CFM Pressure: cmH <sub>2</sub> O, inH <sub>2</sub> O, mmHg, kPa, mBar, Bar, PSIG, ATM
Gas Type		Tidal Volume: L, CF Rate: BPM, CPM, CPS Ti, Te: Seconds I:E : Ratio FIO <sub>2</sub> : Percent
Filter Type		None, ATP, STP, BTPS
DISPLAYS		DESCRIPTION
Pressure		Low Pressure and High Pressure Time Domain Displays with Selectable Time and Amplitude Scales
Flow		Low Flow and High Flow Time Domain Displays with Selectable Time and Amplitude Scales
Ventilation/ Breath Rate		Numerical display of frequency at either Low Flow or High Flow front panel connection
Inspiration Time (Ti)		Numerical display of the inspiratory time at the selected Low Flow or High Flow front panel connection
Exhalation Time (Te)		Numerical display of the expiratory time at the selected Low Flow or High Flow front panel connection
I:E Ratio		Numerical display of Ti/Te ratio at the selected Low Flow or High Flow front panel connection
FL0 <sub>2</sub>		Numerical display of the oxygen content of the monitored gas applied to the front panel oxygen sensor connection
Tidal Volume		Numerical display of volume at the selected Low Flow or High Flow front panel connection
Minute Volume		Numerical display of minute volume at the selected Low Flow or High Flow front panel connection
Barometric Pressure		Numerical display of barometric pressure
Clock Calendar		Clock calendar used for the display of system time and date, time/date stamping acquired data files, reference for instrument calibration interval
SYSTEM		DESCRIPTION
External Connections		2 RS-232 Serial Communication 2 USB 1.1 Compliant 1 802.3xx 10/100BASE-T Fast Ethernet 1 Analog XGA 1 S-Video (NTSC or PAL configurable) 1 Composite Video (NTSC or PAL configurable)
Display Type		External Analog XGA Monitor, External Composite Video Monitor, External S-Video Monitor
Serial Connectivity		2 RS-232 Serial Communication 2 USB 1.1 Compliant 1 802.3xx 10/100BASE-T Fast Ethernet
Operating System		Microsoft Windows XP®
Data Storage		100 Gigabyte Hard Disk Drive
Input Devices		External Mouse, External Keyboard
Power Input		IEC-320 Power Input Connector 90-264 VAC 47-63 Hz Single Phase 25 Watts Maximum 1 Amp Fuses
Dimensions		6.25"h x 13.75"w x 14.25"d (160mm x 350mm x 362mm) with protrusions
Weight		5.3 lbs. (2.4 Kg)
Environmental		Operating Temperature 0 – 40°C (32 – 104°F) Operating Humidity 0-90% Relative Humidity, Non-condensing
Supplied Accessories		Mouse, two button Mouse Pad, non-skid rubber backed Keyboard, with replaceable protective membrane Power Cord, 10 ft. shielded, with hospital-grade plug Operator's Manual Handles for portability Tilt-Up Feet for viewing convenience

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Phone: 201.944.5076 Fax: 201.944.3540 Web: [www.veritiumresearch.com](http://www.veritiumresearch.com)

US and Foreign Patents Pending

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