CITREX H5

Mobile Gas Flow Analyser

analyser
the art of measuring

The ideal all-in-one testing device for Biomedical engineers, independent service organizations, anaesthesia device and ventilator manufacturers.

CITREX H5 is the gas flow and pressure measurement instrument with the most advanced user interface. It is portable, accurate and enables users to individually configure their measuring screens.

The CITREX H5 is designed to meet a wide variety of day-to-day applications. Its precise and highly reliable capabilities allow it to test the performance of different medical devices such as ventilators and anaesthesia machines or oxygen flow meters, pressure gauges and suction devices.

Intergrated
Test Sequences

Flow

Pressure, Oxygen,
Temperature

Features

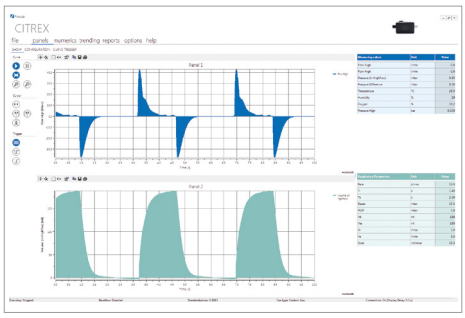
- High-resolution multi-touch display
- Intuitive graphical user interface
- Extended profile capabilities
- Flow and pressure trigger settings
- Up to 17 gas standards
- Up to 26 respiratory parameters
- On-screen data analysis
- Real-time charts
- Statistics values

Easy to Use Interface

The device measures bi-directional flows, pressures, temperatures and oxygen concentrations. The 4.3" high-resolution color touch screen displays numerical, graphical and trending data perfectly. The intuitive user interface is easily configurable, with options to save multiple profiles to suit many different applications.

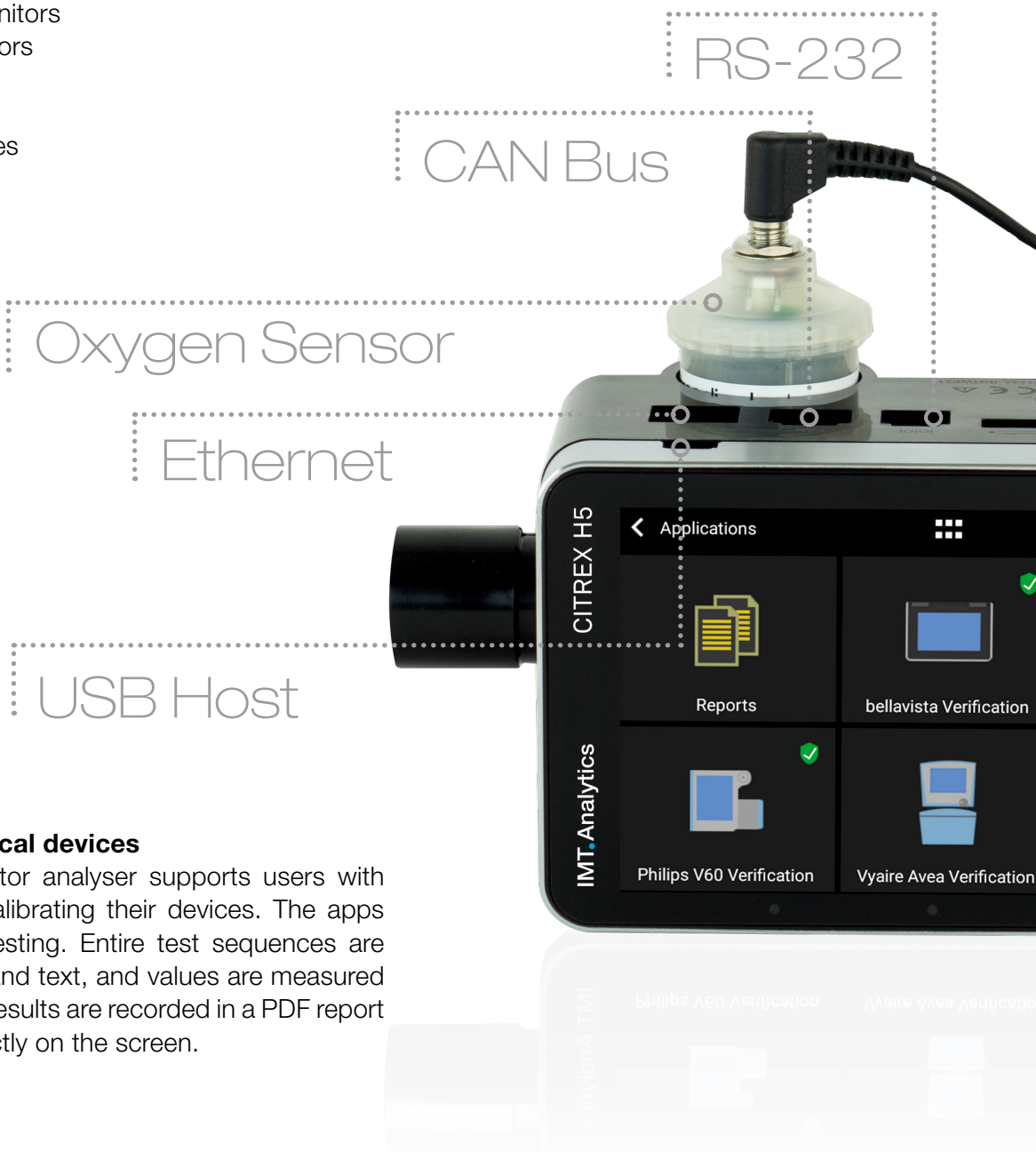
FlowLab PC Tool

High-resolution real-time curves, trending and advanced logging capabilities makes FlowLab indispensable for research. Detailed customized reports can be produced, saved and printed.



CITREX H5 for inspecting and certifying:

- CPAP/bi-level ventilators
- ICU ventilators
- High-frequency ventilators
- Blood pressure monitors
- Oxygen concentrators
- Spirometers
- CO_2 insufflators
- Medical gas supplies



Apps for testing medical devices

The CITREX H5 ventilator analyser supports users with apps for testing and calibrating their devices. The apps enable safe and fast testing. Entire test sequences are displayed with images and text, and values are measured automatically. The test results are recorded in a PDF report that can be signed directly on the screen.

swiss made

CITREX H5 test set contains:

- CITREX H5
- SmartLung Adult (1L)
- FlowLab software
- Oxygen sensor
- Adapter set
- Laminar flow tube
- Car adapter
- Micro SD memory card
- Protection filter
- USB cable
- Ethernet cable
- Power supply
- Carrying bag
- USB adapter
- Quick start manual
- CITREX H5 Protector

Order number: 304.555.000
Email: sales@imtanalytics.com

Analog Out

USB Port

MultiGasAnalyser OR-703
Smallest multi-gas sensor in the world.

CITREX H5, in combination with the MultiGasAnalyser, offers the best and easiest solution for testing anesthesia devices. The MultiGasAnalyser OR-703, paired with the CITREX H5, can measure CO_2, N_2O, Halothane, Enflurane, Isoflurane, Sevoflurane and Desflurane.

Technical Specification CITREX H5

Flow and pressure measurements		Range	Accuracy
Flow	Measuring direction	Bidirectional	
	Temperature compensated	Automatic	
	Pressure compensated	Automatic	
	Humidity compensated	Manually	
	High Flow	± 300 L/min	± 1.9 %* or ± 0.1 L/min (for 10..40°C)**
Pressure	High Pressure (P_{High})	-1 – 10 bar	±1%* or ±7mbar**
	Differential Pressure (P_{Diff})	± 200 mbar	± 0.75 %* or ± 0.1 mbar**
	Pressure in High Flow Channel ($P_{Channel}$)	-50 – 150 mbar	± 0.75 %* or ± 0.1 mbar**
	Atmospheric Pressure (P_{Atmo})	500 – 1150 mbar	± 1 %* or ± 5 mbar**
Units	Flow	L/min, L/s, cfm, mL/min, mL/s	
	Pressure	bar, mbar, cmH_2O, inH_2O, Torr, inHg, hPa, kPa, mmHg, PSI	

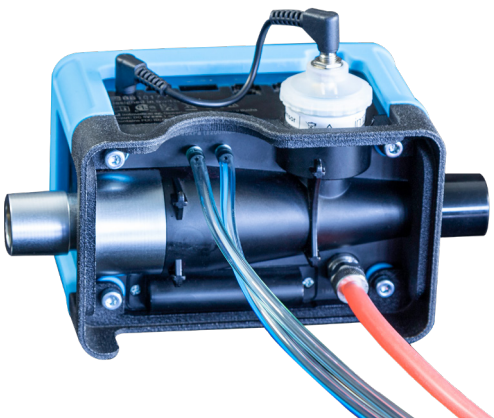
Other measurements		Range	Accuracy
Oxygen	Concentration	0 – 100 %	± 1 % O_2**
	Pressure compensated	≤ 150 mbar	
Temperature	In High Flow Channel	0 – 50 °C	± 1.75 %* or ± 0.5 °C**
CO_2	Concentration (with optional OR-703)	0 – 15 vol%	± (0.2 vol% + 2 % of reading)
		15 – 25 vol%	unspecified
N_2O	Concentration (with optional OR-703)	0 – 100 vol%	± (2 % vol% + 2 % of reading)
HAL, ISO, ENF	Concentration (with optional OR-703)	0 – 8 vol%	± (0.15 vol% + 5 % of reading)
		8 – 25 vol%	unspecified
SEV	Concentration (with optional OR-703)	0 – 10 vol%	± (0.15 vol% + 5 % of reading)
		10 – 25 vol%	unspecified
DES	Concentration (with optional OR-703)	0 – 22 vol%	± (0.15 vol% + 5 % of reading)
		22 – 25 vol%	unspecified
Gas types		Air, O_2, Air/O_2, N_2O, N_2O/O_2, He/O_2, N_2, CO_2	
Gas standards		ATP, ATPD, ATPS, AP21, STP, STPH, BTPS, BTPS-A, BTPD, BTPD-A, 0/1013, 20/981, 15/1013, 25/991, 20/1013, NTPD, NTPS	

Ventilation parameters		Range	Accuracy
Breath rate	Rate	1 – 1000 bpm	± 1 bpm* or ± 2.5 %**
Time	T_i, T_e	0.05 – 60 s	± 0.02 s
Ratio	I:E	1:300 – 300:1	± 2.5 %*
	T_i/T_{cyc}	0 – 100 %	± 5 %*
Breath volumes	V		± 2 %* or ± 0.20 mL (> 6 sL/min)**
	Vti, Vte	± 10 L	± 2 %* or ± 0.20 mL (> 6 sL/min)**
Minute volume	Vi, Ve	0 – 300 sL/min	± 2.5 %*
Pressure	P_{Peak}, P_{Mean}, PEEP, $P_{Plateau}$, IPAP	0 – 150 mbar	± 0.75 %* or ± 0.1 mbar**
Peakflow	PF_{Insp}, PF_{Exp}	± 300 sL/min	± 1.9 %* or ± 0.1 sL/min**
Compliance	C_{Stat}	0 – 1000 mL/mbar	± 3 %* or ± 1 mL/mbar**
Trigger	Adult, Pediatric, HFO, ext. Trigger	Adult, Pediatric, HFO; Adjustable on flow or pressure curves with user-defined limits.	

General information	
Power	100 – 240 VAC, 50/60 Hz
Battery	5 hours
Power consumption	2.5 – 6 W
Weight	0.52 kg
Dimensions (w × d × h)	11.4 × 7 × 7.3 cm
Data storage	Internal and microSD Card
Display	4.3" Multi-Touch (color), Realtime curves
Interfaces	RS-232, USB, Ethernet, CAN, Analog Out, TTL, WLAN, TSI4000 and Prima Protocol
Calibration	Annually
Conditions Ambient temperature	15 – 40 °C (59 – 104°F)
Conditions Humidity	10 – 90 % R.H.***
Approvals	CE, BC (Energy Efficiency for Battery Charging Systems), CSA (North America), IEC 61010-1:2010, IEC 61326-2:2012

The greater tolerance is valid:

* Tolerance related to the measured value
** Absolute tolerance
*** The unit sL/min is based on ambient conditions of 0 °C and 1013.25 mbar (DIN 1343).



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