

CITREX H5

Technical specification

analyser
the art of measuring

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

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

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

Features:

- Big 4.3" multi-touch display with 800 × 480 pixels
- Intuitive graphical user interface
- Extended profile capabilities
- Flow and pressure trigger settings
- Up to 17 gas standards and up to 26 respiratory parameters
- On-screen measurement, realtime parameter reading
- Statistics evaluations



« The ideal all-in-one mobile testing device for all ventilators. »



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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 ₂ O, inH ₂ O, 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 ₂ O	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 ₂ O, N ₂ O/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 _{eyc}	0–100 %	± 5%*
Breath volumes	V		± 2%* or ± 0.20 mL (> 6 sL/min)**
	V _{ti} , V _{te}	± 10 L	± 2%* or ± 0.20 mL (> 6 sL/min)**
Minute volume	V _i , V _e	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).