

CITREX H3

The Economical Gas Flow Analyser

analyser
the art of measuring

Cost-effective, entry-level flow and pressure measurement device.

The CITREX H3 provides the necessary functions required to test and validate the performance of respiratory ventilators. Its compact and lightweight design make the CITREX H3 a small and powerful tool. A single integrated flow channel measures pressure, flow, volume, and oxygen concentration. The capability to calculate ventilation parameters makes CITREX H3 the ideal device to verify the performance of a wide range of respiratory devices.



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The CITREX H3 measures bi-directional flow, pressure, and temperature and optionally oxygen concentration. Gas flow is pressure, temperature and humidity compensated and can be displayed in many different gas standards. This brings additional flexibility to the user. With an internal battery, the CITREX H3 can perform measurements for many hours on a single charge. The USB power connector allows for simple recharging at any time.

Oxygen measurement

To expand the application range, an optional oxygen sensor, mounted directly within the flow channel, is available.



Technical Specifications

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Flow and Pressure Measurements		Range	Accuracy
Flow		± 300 sL/min***	Air: $\pm 2.0\%$ * or ± 0.1 sL/min**
Temperature compensated		yes	
Pressure compensated		yes	
Pressure			
In Flow channel		- 50 – 150 mbar	$\pm 0.75\%$ * or ± 0.1 mbar**
Atmospheric pressure		783 – 1150 mbar	$\pm 1\%$ * or ± 5 mbar**
Units			
Flow		L/min, L/s, cfm	
Pressure		bar, mbar, cmH ₂ O, mmHg, inH ₂ O	
Other Measurements		Range	Accuracy
Oxygen (optional)		0 – 100 %	$\pm 1\%$ O ₂ **
Gas temperature		0 – 50 °C	$\pm 1.75\%$ * or ± 0.5 °C**
Gas types		Air, Air/O ₂ , N ₂ O/O ₂	
Gas standards		ATP, ATPD, ATPS, AP21, STP, STPH, BTPS, BTPS-A, BTPD	
Ventilation Parameters		Range	Accuracy
Breath rate	Rate	1 – 1000 bpm	± 1 bmp** or $\pm 2.5\%$ *
Time	Ti	0.05 – 60 s	± 0.02 s
Ratio	I:E	1:300 – 300:1	$\pm 2.5\%$ *
Volume	V		$\pm 2\%$ * or ± 0.20 mL (> 6 sL/min)**
Tidal volume	Vti, Vte	± 10 L	$\pm 2\%$ * or ± 0.20 mL (> 6 sL/min)**
Minute volume	Vi	0 – 300 sL/min	$\pm 2.5\%$ *
Peak flow	PF _{insp.} /PF _{exp.}	± 300 sL/min	Air: $\pm 2.0\%$ * or ± 0.1 sL/min**
Pressure	P _{peak} , P _{mean} , PEEP	0 – 150 mbar	$\pm 0.75\%$ * or ± 0.1 mbar**
Trigger	Adult, Pediatric	flow or pressure at preset and at adjustable levels	

General Information	
Color display	yes
Power	100 – 240 VAC, 50 – 60 Hz
Dimension (w × d × h)	11.4 × 6 × 7 cm
Weight	0.38 kg
Calibration	annually
Interface	Ethernet
Approvals	CE, BC, CSA (Canada and USA)

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 mbar (DIN 1343).

Subject to technical changes.