

Basic Features

Respiratory Parameters

16 respiratory parameters can be calculated including PEEP, VTI and Compliance

Bidirectional Flow Measurement

Two measuring ports evaluate flow, pressure, temperature, humidity and O₂

Pressure Measurements

All pressure information included with up to 6 different pressure sensors

Gas Standards

13 gas standards and 10 gas types adapt the unit to the tested device

RT-200 Emulation Mode

The RT-200 emulation mode simulates the RT-200 operating mode while offering a contemporary replacement

Data Storage

Internally stores all measured and respiratory parameters in order to simplify the testing procedure

Battery Operation

Convenient and independent work when you are on the go

USB, RS-232 and External Trigger

Communicates with your test software and ventilator

Optional Multi-Gas Analyzer

The optional MGA-3050 Sensor offers instant gas concentration measurements of CO₂, N₂O, Halothane, Enflurane, Isoflurane, Sevoflurane and Desflurane

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FLOW ANALYZER

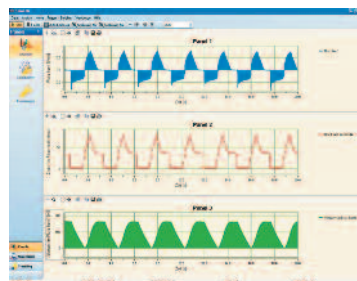
BC Biomedical PFC-3000 Flow Analyzer



PFC-3000 FLOW ANALYZER

The PFC-3000 series of benchtop instruments measures flow, pressure, temperature, humidity and O₂ concentrations bidirectionally. The one-of-a-kind Adult, Pediatric and High Frequency ventilation measuring modes make the PFC-3000 the ideal calibration tool for all ventilators, anesthesia machines and spirometers.

The PFC-3000 distinguishes itself from other calibration tools by combining a simple, intuitive multilingual user interface with the highest precision. With the push of a button, all measured values can be stored directly on the PFC-3000 and later retrieved for documentation purposes.



Optional FlowLab Software



MGA-3050 Optional Sensor

BC BIOMEDICAL PFC-3000 FLOW ANALYZER

SPECIFICATIONS

Flow & Pressure Measurements			Range	Accuracy	PFC-3000A	PFC-3000V	PFC-3000L
Flow	Measuring direction	bidirectional		•	•	•	
	Temperature compensated	yes		•	•	•	
	Pressure compensated	yes		•	•	•	
	Humidity compensated	yes		•	•	•	
	O2 compensated	yes		•	•	•	
	High	± 300 L/min	± 1.75%* or ± 0.1 L/min**	•	•	•	
Low	± 20 L/min	± 1.75%* or ± 0.04 L/min**	•	•	•		
Pressure	High	0 – 145 PSI	± 1%* or ± 0.15 PSI**	•	•	•	
	Average	± 112.5 mmHg	± 0.75%* or ± 0.08 mmHg**	Differential	Relative	Relative	
	Low	0 – 3.75 mmHg	± 1%* or ± 0.01 mmHg**	•	•	•	
	High Flow Port	0 – 112.5 mmHg	± 0.75%* or ± 0.08 mmHg**	•	•	•	
	Barometer	0 – 862.5 mmHg (abs)	± 1%* or ± 3.75 mmHg**	•	•	•	
	Vacuum pressure	± 750 mmHg	± 0.5%* or ± 1.5 mmHg**	•	•	•	
Measuring unit	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		•	•	•	
Additional Measuring Values			Range	Accuracy			
Oxygen	Concentration	0 - 100%		± 1% O ₂ **	•	•	•
	Pressure compensated	yes		•	•	•	
Temperature	High Flow Port	0 - 50°C		± 1.75%* or ± 0.5°C**	•	•	•
Dew point	High Flow Port	-10 - 50°C		± 2%* or ± 1°C**	•	•	•
Air humidity	High Flow Port	10 - 80% RH		± 3%	•	•	•
		<10% and >80% RH		± 5%	•	•	•
CO ₂	Concentration	0 - 10%		± (0.2% ABS + 2% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
		10 - 20%		± (0.3% ABS + 4% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
N ₂ O	Concentration	0 - 100%		± (2% ABS + 2% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
HAL, ISO, ENF	Concentration	0 - 8%		± (0.15% ABS + 5% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
		8 - 12%		± (0.2% ABS + 10% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
SEV	Concentration	0 - 10%		± (0.15% ABS + 5% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
		10 - 15%		± (0.2% ABS + 10% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
DES	Concentration	0 - 22%		± (0.15% ABS + 5% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
		22 - 25%		± (0.2% ABS + 10% REL)	w/ MGA-3050	w/ MGA-3050	w/ MGA-3050
Gas types	Air, Air/O ₂ , N ₂ O/O ₂ , Heliox (21% O ₂), He/O ₂ , N ₂ , CO ₂ , customized gas types		•	•	•		
Gas Conditions	ATP, ATPD, ATPS, AP21, STP, STPH, BTPS, BTPD, 0/1013, 20/981, 15/1013, 25/991, 20/1013		•	•	•		
Respiratory Parameters			Range	Accuracy			
Rate	1 - 1000 bpm		± 2.5%** or ± 1 bpm	•	•	•	
Time	T _i , T _E	0.05 - 60 s		± 0.02 s	•	•	•
I:E ratio	1:300 - 300:1		± 2.5%*	•	•	•	
Ti/Ttotal	0 - 100%		± 5%*	•	•	•	
Breath volumes	V _{ti} , V _{te} (@Flow Low)	± 10 L		± 1.75%* or ± 0.10 mL(>2.4 L/min)	•	•	•
	V _{ti} , V _{te} (@Flow High)	± 10 L		± 1.75%* or ± 0.20 mL(>6.0 L/min)	•	•	•
Minute volumes	V _i , V _e	0 - 300 L/min		± 2.5%* or ± 20 mL/min(High) ± 10 mL/min(low)	•	•	•
Pressure	P _{peak} , P _{mean} , P _{EOP} , P _{plateau}	0 – 152.96 cmH ₂ O		± 0.75%* or ± 0.1 cmH ₂ O**	•	•	•
Peakflow	Peakflow Insp./Exp.	± 300 L/min		± 1.75%* or ± 0.1 L/min**	•	•	•
Compliance	C _{stat}	0 - 1000 mL/mbar		± 3%* or ± 1 mL/mbar**	•	•	•
Trigger	Adult, Pediatric, HFO	Adjustable on flow or pressure curves with user-defined limits.		•	•	•	
General Information							
Electrical & Physical Data	AC input	100 - 240 VAC, 50/60 Hz		•	•	•	
	Battery (lead rechargeable battery)	3 hrs (with MGA-3050 2 hrs)		•	•	•	
	Power consumption	25 VA(W)		•	•	•	
	Weight	<8.5 Lbs (3.8 kg)		•	•	•	
	Dimensions (w x d x h)	8.67 x 9.84 x 4.72 inches (220 x 250 x 120 mm)		•	•	•	
Data Storage	all parameters (measured as well as respiratory values)		•	•	•		
Display	Graphic display	Intuitive user interface with numerical measuring values, statistics, volume trigger configuration, gas type selection and calibration menus.		•	•	•	
Communication Interfaces	USB for Windows Software FlowLab, Interfaces RS-232 for individual communication, TTL for external trigger.		•	•	•		
Calibration	annually		•	•	•		
Conditions	Ambient temperature	15 - 40 °C (59 - 104 °F)		•	•	•	
	Humidity	10 - 90% RH, Non-condensing		•	•	•	
Approvals	CE, CSA		•	•	•		

Legend

* Tolerance related to the measured value

** Absolute tolerance (Whichever is greater)