

LoFlo Sidestream CO₂ Module

LoFlo Sidestream CO₂ Module – Specifications

TRANSDUCER TYPE	SIDESTREAM CO₂ MODULE
Sample Flow Rate	50 mL/minute ±10 mL/minute
Principle of Operation	Non-dispersive infrared (NDIR) single beam optics, dual wavelength, no moving parts
Initialization Time	Capnogram, displayed in less than 20 seconds, at an ambient temperature of 25°C, full specifications within 2 minutes
CO ₂ Measurement Range	0 to 150 mmHg, 0 to 19.7%, 0 to 20 kPa
CO ₂ Resolution	0.1 mmHg 0 to 69 mmHg 0.25 mmHg 70 to 150 mmHg
CO ₂ Accuracy	0 – 40 mmHg ±2 mmHg 41 – 70 mmHg ±5% of reading 71 – 100 mmHg ±8% of reading 101 – 150 mmHg ±10% of reading Above 80 BPM ±12% of reading
CO ₂ Stability	Short term drift: Drift over four hours shall not exceed 0.8 mmHg maximum Long term drift: Accuracy specification will be maintained over a 120-hour period with 5% CO ₂
CO ₂ Noise	RMS noise of the sensor is less than or equal to 0.25 mmHg at $5\%\ CO_2$
Sampling Frequency	100 Hz
Respiration Rate Range	1 to 150 Breaths Per Minute (BPM)
Respiration Rate Accuracy	±1 breath
Compensations (Supplied by Host)	Barometric pressure: 400 mmHg to 800 mmHg Operator selectable O_2 , N_2O , HE and agent compensation
Calibration	No routine user calibration required
Sample Cell/Filter	Proprietary single patient use sample cell and inline filter are integrated with the sample line, which effectively eliminates contamination of the internal system
Nasal Sampling Kits for Non-intubated Patients	Nasal CO_2 or CO_2 with O_2 delivery (Adult, Pediatric, Infant-Neonatal) Nasal/Oral CO_2 or CO_2 with O_2 delivery (Adult, Pediatric)
Airway Adapter Kits for Intubated Patients	Adult/Pediatric with and without dehumidification tubing Pediatric/Infant, low deadspace, with and without dehumidification tubing Taper meets ISO 5356-1
Sample Kit Hours of Use	Nasal and Oral/Nasal Cannulas without nafion – up to 12 hours Nasal and Oral/Nasal Cannulas with nafion – up to 120 hours Airway Adapter Kits without nafion – up to 12 hours Airway Adapter Kits with nafion – up to 120 hours
Sample Cell Detection	Insertion automatically turns sampling pump on. Removal automatically turns sampling pump off
Flow Control	Via ΔP measurement across a capillary tube
Scavenging Port	Yes
Voltage Requirements	5.0 VDC ±5%

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Power Rating	Rated input: Less than 1.3 Watts typical
	Steady state less than 2.0 Watts maximum on power up (warm up)
Interconnection	Standard – Lemo Redel 8-pin plastic
	LoFlo and CAPNOSTAT are interchangeable with the host monitor
	Common connector allows easy exchange between mainstream and
	sidestream monitoring
Temperature and Humidity	Operating: 0° to 40°C, 10 to 90% RH, non-condensing
	Storage: -40° to 70°C, <90% RH, non-condensing
Water Resistance	IPX4 – Splash-proof (When sample cell is inserted in sample cell receptacle)
Mechanical Environment	IEC TR 60721-4-7 Class 7M3
	IEC 60068-2-64 Random Vibration (Refer IEC 62366-1 (EN 62366-1)§ 4.1.1)
	IEC 60068-2-27 Shock
	IEC 60068-2-31 With a operational drop of 3ft
	IEC 60601-1 (EN 60601-1) §15.3.4.1
	IEC 60601-1 (EN 60601-1) 15.3.2
	IEC 60601-1 (EN 60601-1) 15.3.3
	Cable can withstand a pull of 30 lbs
	Cable can withstand 10,000 bend cycles
Data Interface	RS232, bi-directional, 19200 baud, standard N-8-1
Data Output	CO ₂ gas concentration (mmHg), end-tidal CO ₂ , inspired CO ₂ , respiratory rate
	Gas and barometric pressure compensated when supplied by host

