

CAPNOGRAPH

Technical Specifications

Technology	Mainstream (Capnostat5)	Sidestream (LoFlo)	Sidestream (CapnoTrak)
Transducer Type	Mainstream CO2 Sensor	Built-in Sidestream Sensor	Diverting Sidestream using internal pump
Principle of Operation	Non-dispersive Infrared (NDIR), Single Beam, Dual wavelength		
Initialisation Time	Capnogram display ed in less than 15	Capnogram displayed in less than 20	Capnogram display ed in less than 10
	seconds at an ambient temperature of 25°C,	seconds, at an ambient temperature of 25°C,	seconds, at an ambient temperature of 25°C,
	full specifications within 2 minutes	full specifications within 2 minutes	full specifications within 3 minutes
Range (etCO2)	0 to 150 mmHg (0 to 19.7 %Vol, 0 to 20 KPa)	0 to 150 mmHg (0 to 19.7 %Vol, 0 to 20 KPa)	0 to 99 mmHg (0 to 13.03 %Vol, 0 to 13.2
	(at 760mmHg)	(at 760mmHg)	KPa) (at 760mmHg)
Accuracy (etCO2)	±2 mmHg - 0 to 40mmHg	±2 mmHg - 0 to 40mmHg	±2 mmHg - 0 to 38mmHg
	±5% of reading - 41 to 70 mmHg	±5% of reading - 41 to 70 mmHg	±10% of reading - 38 to 99 mmHg
	±8% of reading - 71 to 100 mmHg	±8% of reading - 71 to 100mmHg	±12% of reading - Abov e 80bpm Resp.
	±10% of reading - 101 to 150 mmHg	±10% of reading - 101 to 150 mmHg	
		±12% of reading - Above 80bpm Resp.	
Respiration Rate Range	0 to 150 Breaths Per Minute (BPM)	2 to 150 breaths per minute (bpm)	2 to 100 breaths per minute (bpm)
Respiration Rate Accuracy	±1 breath	±1 breath	±1 breath
Resolution	1 bpm	1 bpm	1 bpm
Calibration	No routine user calibration required. Zero Cal	No routine user calibration required	No routine user calibration required
	is required when changing airway adapter		
Sample Cell/Filter	No water trap/filter necessary	Proprietary sample cell and inline filter are	Water Filter assembly, with Nafion
		integrated with the sample line	Dehumidification Tubing

Capnogram

Wave Freeze

Wave Speed 3.12, 6.25, 12.5 mm/sec

Display type

Scrolling available for previous 5 Screens

Averaging Breath-to-Breath, 4 Breaths, 8 Breaths

Apnea Delay of 10, 20 and 30 secs.

Alarms Limit Violation, Apnea, Various System Failures

Silence 2 min Silence and Permanent Silence

Alarm Ranges High Low etCO₂ (mmHg) 1 to 150 0 to 149 (in 1mmHg steps) iCO₂ (mmHa) 1 to 50 0 to 49. Off (in 1mmHa steps) Respiration (bpm) 5 to 150 0 to 145 (in 5 bpm steps)

Displays, Indicators & Keys

Red LED Display 0.4"

Amber LED Display 0.4"

240x64 pixels, STN, Transmissive, Negative, LCD Display

White LED Backlight, Viewing Area 132.6x39.0mm,

Display of Capnogram, Alarm Limits

Red LED 3mm Battery

Green LED 3mm Charging

On/Off, Menu, Up, Down, Cancel, Waveform/Trend, Keys

Memory Trends (available on Display & Printing)

Past Trends of etCO., iCO. & Respiration Rate for 72 hours (3 days) Trends available on Display - 15min, 1hr, 2hrs, 4hrs & 8hrs

Past Trends of 1000 Alarm Violations

Printing (available on any Parallel Printer)

Real Time (etCO2, iCO2 & Respiration Rate) at 1 min. intervals

Past Trends of 72 hours (3 days)

Power Requirements

Battery Rechargeable Built-in Sealed Lead Acid Battery 8 hours

Charging Time Battery Backup 3 hours

240 ±10% Vac, 50 Hz, 10VA Max. AC Mains

Dimensions

Width Height Denth Weight 10.20" 3.85" 6.70" 2.0 kgs (260mm) (98mm) (170mm) (4.4 lbs)

Environmental Specifications

0 to 40 deg. C (Operating), -40 to 70 deg.C (Storage) Temperature 15 to 90% (Operating), < 90 % (Storage) Non-condensing Relative Humidity

400-800 mmHg (Operating), 375-795 mmHg (Storage)

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Respironics Inc. and its associates

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APNOGRAPH

EMCO CapnoWave 3400 is an economical, stand-alone, light weight, bedside and portable Capnograph Monitor which measures End Tidal CO2 (etCO2), Inspired CO2 (iCO2) and Respiration Rate (RR). It is based on the latest state-of-art Plug & Play technology from Respironics Inc., USA



Emco Meditek, an ISO 9001:2000 company, was formed in the year 1989 with the main objective of manufacturing and marketing of electronic medical equipment. The medical equipment are manufactured indigenously with the assistance of technology obtained from leading medical equipment manufacturing companies around the world especially USA, UK and Germany

EMCO CapnoWave 3400



Model 3400T (CapnoTrak)



Sidestream Inbuilt (CapnoTrak)®

- Economical Sidestream CO₂ Inbuilt sensor that provides reliable CO₂ monitoring of patients from neonates to adults
- Low sampling rate of 50 ml, useful in non-intubated & intubated patients, especially for ICU, PICU, Operating Rooms

Features of CapnoWave 3400

- Plug & Play Technology from Respironics Inc., USA
- Measurement of etCO2, iCO2 & Respiration



Capnograph features

- Useful for Intubated & Non-intubated patients
- Alarms for Limit Violations & Apnea
- O2/N2O/Helium/Anaesthetic Agents Compensation
- 3 measurement units mmHg, %Vol, KPa

General features

- 4 Waveform Speeds 3.12, 6.25, 12.5 & 25 mm/sec
- Trends for 72 hours with scrolling
- Built-in Rechargeable Battery Back-up of 2 hours.
- Low Battery Audio & Visual Alarm
- Ideally suited for Laparoscopy, Neuro OT, Gen. OT, ICU, NICU, PICU





EMCO CapnoWave 3400





Model 3400M (Mainstream)



Mainstream Sensor (CAPNOSTAT 5)®

- Small lightweight mainstream CO₂ sensor provides accurate and reliable monitoring for all intubated patients from neonates to adults
- Useful in Long-term Ventilator Management, verification of proper ET tube placement, Confirmation of ET tube stability during transport

Model 3400S (Sidestream)



Sidestream Sensor (LoFlo)®

- LoFlo is the newest 50 ml sampling rate CO₂ sensor that provides consistent and reliable CO₂ monitoring of adult, pediatric and neonatal patients.
- Useful in monitoring the effects of pain-controlled analgesia, monitoring respiratory efforts during procedural sedation, safety monitor post-extubation, screening tool in the ED for respiratory complications such as asthma.

EMCO CapOxi 2060C







PULSE OXIMETER with CAPNOGRAPH

EMCO CapOxi 2060C is a Pulse Oximeter with Capnograph which is a combination of CO2 technology from Respironic Inc., USA and SPO2 technology from Nonin Medical Inc., USA

Oximeter features

- 3 colour Perfusion LED displays the perfusion status
 Green (good perfusion), Orange (marginal perfusion) & Red (inadequate perfusion)
- Pulse Beep is sounded for every detected pulse, with the tone varying according to SpO2 value
- Sensor Alarm indicates that the sensor has been disconnected either from patient or from oximeter
- Ten segment bargraph indicates pulse strength
- Wide range of sensors available with most of the sensors having 3 meter cable lengths

Oximeter Specifications

Sp02 Range 0 to 100%

Accuracy ± 2 digits at 70-100% Averaging 4,8,16 beat - automatic

Sensors Adult Finger, Paediatric Finger & Universal 'Y'

8,16, 32 beat - automatic

Sensors Adult Hilger, Laediatric Hilger d Offiversal

Pulse Range 18 to 300 bpm

Accuracy $\pm 3\% \pm 1$ digit

Pulse Beep Tone Changes with SpO₂ value