# **RICap**

# Rapid Intervention Capnograph





Small and portable



High degree of protection



Sound and light double alarm

#### **Overview**

RICap CO2 Monitor is intended to provide continuous monitoring of end tidal CO2 concentration (EtCO2), Capnogram, Respiration Rate (RR) of adult, paediatric and infant patients. As a life saving device during Rapid Intervention, RICap finds its place in emergency departments just as much as in perioperative departments, spot check for both intubated and non-intubated patients, and during transport not only in

ambulances but even within the hospital. Splashproof, lightweight and fitting in the palm of a hand, starting up within seconds, it is an excellent device that can be used directly by both ALS and BLS providers.

RICap waveform allows a quick evaluation of the patient respiratory distress help healthcare personel for a rapide intervention.







#### **Features**

**Multi-scenario:**Transport inside or outside hospital, Auxiliary intubation, bedside monitoring, spot measurement and printing results

**Accuracy:**Automatic compensation algorithm for temperature,atmospheric pressure and the patented Anti-condensing technology of the airway adapter to ensure the reliable of measurement results.

**Easy to Start up:**Quick set up and one-touch programming without maintain request.

Powered by two 3A batteries, real-time monitoring of equipment ≥4h

#### Power On/Off Button Turn off RICap by pressing th button" o" for 3s. **Airway Adapter Alarm Slience Button** Infant Short press the "⊠" button, Adult/Pediatric RICap Alarm silence Configuration Press the "^" button to config-**Parameter Display** ure RICap. EtCO2 Zero calibration AwrR Press and hold "^" \"together Capnogram to trigger the Zero Calibration process. Status Display Bluetooth Battery status

- High standard Accuracy CO2 measurement by dual wave length
- Splash proof and rugged design for use in harsh conditions
- 4 buttons for convenient settings adjustments, alarm pause and power on/off
- · Adjustable Sweep speed
- Selectable units mmHg, kPa, %
- Apnea detection and adjustable
- Configurable alarms for Respiration rate alarm, EtCO2 high and low, clogged or missing adapter
- Low battery indicator

- · Visual and audible (buzzer) alarm
- Real-time Capnogram display
- Up to 3.5 hours continuous use
- · Adult and neonatal airway adapters
- Ultra lightweight
- · No annual routine calibration required
- Support english, italian, french, hungarian, polish (other language upon request)
- Bluetooth connectivity to export real time data



## **Specifications** -

#### **Mechanical and Environment**

Dimensions	60 x 47 x 43 mm (2.36 x 1.85 x 1.69 inches)	
Weight	$\sim\!80~g$ (complete device with batteries), < 350grs with transport pouch.	
Mechanical robustness	Meets the shock and vibration requirements for transport of SS-EN ISO 21647:2004 clause 21.102	
Temperature and Humidity	Operating: -5 to 50°C, 10 to 90% RH, non-condensing Storage: -30 to 70°C, <90% RH, non-condensing	
Atmospheric pressure	70 - 120 kPa	

#### **EtCO2 Measurement**

Transducer Type	Mainstream CO2 Monitor	
Measuring method	Dual-wavelength, non-dispersive infrared spectroscopy	
Initialization Time	Capnogram, displayed within few seconds at an ambient temperature of 25°C, and full specifications within 1-2 minutes especially if temperature below 15°C	
CO2 Measurement Range	0 to 99 mmHg, 0 to 9.9%, 0 to 9.9 kPa	
CO2 Accuracy	±(0.2% + 2% of reading)	
Total system response time	< 1s	
Calibration	No routine user calibration required. An airway adapter zero is required when changing to a new airway adapter	
Recovery time after defibrillator test	Unaffected	

## Respiration Rate Measurement

Respiratory rate Range	0~150 Breaths Per Minute (BPM)	
Respiration Rate Accuracy	±1BPM	
Breath detect	Adaptive threshold, minimum 1 % CO2 change	
Airway Adapters	< 5 cc dead space (adult/Pediatric), < 1 cc dead space( infant)	

### **Human Machine Interface**

Display	Active OLED color graphic display, 65 000 colors, 128 x 128 pixels Multi-languages(English, French, Italian, Hungarian, polish and more to be supported)	
Front Panel Buttons	4 buttons: power on/off, alarm pause, up/down selection	
Alarms	No Adapter, Clogged Adapter, No Breath Detected, High AwRR, Low ETCO2, High ETCO2, Temperature out of range, Atmospheric pressure is over operating range, Low Battery	

#### **Power Specifications**

External Supply	None
Power Consumption	TBD
Batteries	Two AAA Cell batteries (2x1.5VDC): Alkaline IEC:LR03 or Energizer Ultimate Lithium L92 batteries. Use of other Lithium batteries may present a risk of fire or explosion
Battery life time	Duracell Plus Alkaline: ~4 hours Energizer Ultimate Lithium L92: ~7 hours

### **Regulatory Compliance**

Certificate	CE
Standards compliance	IEC 60601-1:2012
•	IEC 60601-1-8:2012
	IEC 60601-1-12:2014
	ISO 80601-2-55:2018
Box content	RICap capnograph, adult and neonate airway adapters, lanyard and pouch

#### Interfaaces

Part Number	Designation		Included with device
RICAP	RICap module	1	
M401B-A	Disposable Adult airway adapter	1	
M401B-N	Neonate airway adapter	1	
RIC-P	Pouch	1	FRC ap . Constagraph
RIC-L	Lanyard	1	
RIC-B	AAA battery	1	(not provided)

<sup>\*</sup> The data is subject to change without notice. Please refer to the manual for the contraindications and precautions

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