CLEO

VERSATILITY IN VITAL SIGNS

INFINIUM®

CLEO

PORTABLE
weighs less than 3 lbs

TOUCHSCREEN
easy and intuitive to use

MOBILE
backup battery powered

The **Cleo** is a new and intuitive approach to patient vital signs measurement. The **Cleo** can be configured to measure any combination of: non-invasive blood pressure, SpO_2, rapid temperature, and capnography ($EtCO_2$).

Weighing in at less than 3 LBS the portable **Cleo** is well suited for any patient care area by offering a multitude of vital sign combinations. The **Cleo** can be used as a basic pulse oximeter or configured to a NIPB/SpO_2/Temp spot check monitor. **Cleo** can also be configured to be a stand-alone capnograph or combination capnograph/SpO_2/NIPB monitor. The **Cleo** is well suited for both bed side and mobile spot check use.

The **Cleo** simplifies clinician use by incorporating a touch screen with a simple user interface making the **Cleo** intuitive for any user. A long life lithium Ion battery is standard and many mobile mounting solutions' are available for the **Cleo**.

Field Upgradeable
THERMOMETER

Covidien Filac 3000™

Accurate within >/- 0.3C a
Temperature Reading within 4 seconds

The Covidien Filac 3000™ plug-in thermometer module can be installed into the Cleo anywhere and anytime. This simple plug-in module adds the option of a 4 second oral temperature reading brightly displayed on-screen. The **Filac 3000™** supports infection control by utilizing single use probe covers and a probe isolation chamber when not in use.

INFINIUM

Cost Effective Capnography

Infinium CO2

The Infinium capnography system is a cutting edge low flow End-tidal CO_2 measuring system. Our CO2 module uses a 50/ml per minute sidestream method to deliver the most accurate $EtCO_2$ readings. Non-proprietary sample lines allows the **Cleo** to be the industry's lowest cost per patient End-Tidal CO_2 monitors. Our CO2 modules can be used on both intubated and non-intubated patients. Our sample line connection system uses filter cells to eliminate the potential of cross contamination.

Mounting Solutions

A RELIABLE CONNECTION

ROLLING STAND

Height and tilt adjustable with a large wheel base allows for smooth and stable mobility.

- **Quick release slide mount**
- **Accessory basket**
- **Medical grade steel construction**
- **Lockable wheels**

WALL MOUNTS

Height and tilt adjustable wall mounts offer.

- **Quick release of monitor**
- **Medical grade construction**
- **Adaptable to anesthesia machines**
- **Adaptable to most wall rail systems**

INFINIUM®

CLEO TECHNICAL SPECIFICATIONS:

SAFETY

Meet the requirement of EN60601 series

Type of Protection:	Class I (on AC power) , internally powered equipment (on battery power):Per I.E.C. 60601-1, clause 2.2.4
Degree of Protection:	Type BF, defibrillation-proof CF - Applied part
Sterilization or Disinfection methods:	70% isopropyl alcohol solution or a nonstaining disinfectant. Equipment not suitable for use in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxide
Operation Mode:	Continuous
Protection Against Ingress of Liquids:	IPX0

APPLICATION

Neonatal, pediatric and adult patients

PHYSICAL DIMENSIONS & WEIGHT

Base Unit:	8 x 4.5 x 4 (HxWxD inches)
Weight:	2.5 LBS

PERFORMANCE SPECIFICATIONS

Display:	5.0 inch (Diagonal) color TFT
Resolution:	800 × 3(RGB) × 480
Trace:	2 waveforms
Waveforms:	PLETH, ETCO2
Indicator:	Alarm Indicator Power indicator Pulse beep and alarm sound
Trend time:	From 1 to 72 hours

NIBP

Measuring Technology:	Automatic oscillating measurement
Cuff Inflating:	<30s (0 ~ 300 mmH, standard adult cuff)
Measuring Period:	AVE<40s
Mode:	Manual, Auto, STAT
Measuring Interval in AUTO Mode:	2 min ~ 4 hrs
Pulse Rate Range:	30 bpm ~ 250 bpm
Measuring Range:	Adult/Pediatric Mode SYS: 40 ~ 250 (mmHg) DIA: 15 ~ 200 (mmHg) Neonatal Mode SYS: 40 ~ 135 (mmHg) DIA: 15 ~ 100 (mmHg)
Resolution:	1mmHg
Pressure Accuracy:	Maximum Mean error: ±5mmHg
Maximum Standard deviation:	8mmHg
Overpressure Protection:	Adult Mode: 280(mmHg) Neonatal Mode: 150 (mmHg)
Alarm Limit:	SYS: 50 ~ 240 mmHg DIA: 15 ~ 180 mmHg
Standards:	Meets performance standards of ANSI/AAMI SP10:2002

SPO2

ASpO2:	Anti-motion SpO2
SpO2% Range:	0 ~ 100%
SpO2 Accuracy:	±2% (70 ~ 100%,non-motion) ±3% (70 ~ 100%, motion)
Pulse Rate Range:	30-250 bpm
Pulse Rate Accuracy:	±2 bpm(non-motion), ±3 bpm (motion)
Alarm Upper-lower Limit:	Upper limit 70 ~ 100%, Lower limit 70 ~ 100%
SpO2 Probe:	Red light LED wavelength: 660nm±5nm Infrared light LED wavelength: 940nm±10nm
Standards:	Meets performance standards of EN ISO 9919:2005

RAPID TEMPERATURE (OPTION)

Temperature Measurement Range:	30°C to 43°C (86°F to 109°F)
Typical Measurement Times: *(after insertion into measurement site):*	Oral (Quick Mode): 3-5 seconds (non-fever temps), 8-10 seconds (fever temps) Oral (Standard Mode): 6-10 seconds Axillary Mode: 8-12 seconds Rectal Mode: 10-14 seconds Direct Mode (All Sites): 60-120 seconds
Pulse Timer:	60 Second count with a "beep" at 15 seconds, 2 "beeps" at 30 seconds, 1 "beep" at 45 seconds, and 2 "beeps"at 60 seconds
Patient Accuracy:	A Standard Prediction Mode reading and a Direct Mode reading will differ by less than ±0.2°C (±0.4°F) on 98% of tested patients
Batteries:	Four "AA" Required. Standard IEC package size. Alkaline --1.5 Volt Approx. 6000 temperature readings
Standards:	Meets performance standards of EN 12470-3:2000, ASTM E1112:2006

EtCO2 (OPTION)

Mode of Sampling:	Sidestream or Mainstream
Principle of Operation:	Non-dispersive infrared (NDIR) single beam optics, dual wavelength, no moving parts.
CO2 measurement Range:	0 to 150 mmHg (0 to 19.7%, 0 to 20 kPa)
CO2 Calculation Method:	BTPS (Body Temperature Pressure Saturated)
CO2 Resolution:	0.1mmHg (0-69mmHg), 0.25mmHg (70-150mmHg)
CO2 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 breath per minute ± 12% of reading
Sampling rate:	100Hz
Respiration Rate:	2 ~ 150 bpm
Respiration Rate accuracy:	±1 breath
Response Time:	<3 seconds - includes transport time and rise time
Inspired CO2 measurement Range:	3 ~ 50 mmHg
Standards:	Meets performance standards of ISO/FDIS 21647:2004 (E), ASTM F1456-01, IEC/CDV 60601-2-55

NETWORKING

Wired Networking:	Industry standard: 802.11b/g wired network Frequency Range: 2.412 ~ 2.484 GHz Connected bedside number: Up to 16 bedside monitors
Wireless Networking:	Up to 100m indoors Industry standard 802.11b/g wireless Supports TCP/IP and UDP/IP Protocols

POWER

Source:	External AC power or internal battery
AC Power:	100 ~ 240VAC, 50/60Hz, 150VA
Battery:	Built-in and lithium Ion rechargeable, 12.6V/5Ah
Charge Time:	8 hours
Operating Time:	3 hours

ENVIRONMENTAL SPECIFICATIONS

Temperature:	Operating: 5 ~ 40 °C Storage: -10 ~ 45 °C
Humidity Range:	Operating: ≤80 % Storage: ≤80 %

FUSE

3.15A/250V

LCD SPECIFICATIONS

Display Type:	TFT color LCD
Size (diagonal):	5.0 inch
Active Area:	152.4 (W) × 91.44 (H) mm
Color arrangement:	RGB-stripe
Dot pitch:	0.0635(W) × 0.1905(H) mm
Display Mode:	Normally white, Transmissive
Interface:	Digital (TTL)
Surface Treatment:	Anti-Glare

TOUCHSCREEN SPECIFICATIONS

Type:	Four-Wire Analog Resistive Touch Panel
Input Mode:	Stylus Pen or Finger
Connector:	FPC
Insulation resistance:	25MΩ
Voltage:	7VDC
Chattering:	10ms
Transparency:	80%
Surface hardness:	3H
Durability-surface scratching:	Write 100,000
Active force:	80gf
Knock Test:	1,000,000 times

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