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PRODUCT BROCHURE

Prime Innovation for Medical Application

Prime
Innovation
for Medical
Application

CONTENTS

RAPID INTERVENTION CAPNOGRAPH

Prime Innovation for Medical Application

RICAP®

Capnogram,
EtCO2, AwRR
Splashproof, Rugged

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

- 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

Technical Characteristics

Mechanical and Environment

Dimensions	60 x 47 x 43 mm (2.36 x 1.85 x 1.69 inches)
Weight	~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 50ºC, 10 to 90% RH, non-condensing Storage: -30 to 70ºC, <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 25ºC, and full specifications within 1-2 minutes especially if temperature below 15ºC
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	MDD 93/42/EEC EN 60601:1990, Amendment 1 (1991), Amendment 2 (1995) EN 60601-1-2:2001 EN 60601-1-8:2004 EN ISO 21647:2004 EN ISO 5356-1:2004 EN 1789:2007
Box content	RICap capnograph, adult and neonate airway adapters, lanyard and pouch

Ordering

Part Number	Designation		Included with device
RICAP	RICap module	1	
SGMC-DA SGMC2-RA	Disposable Adult airway adapter Reusable	1	
SGMC-DN	Neonate airway adapter	1	
RIC-P	Pouch	1	
RIC-L	Lanyard	1	
RIC-B	AAA battery	1	(not provided)

For more information, please contact us: info@zugmed.com

High End Handheld Vital Signs Monitor

Prime Innovation for Medical Application

SatPro® SERIES

SpO2, PR, EtCO2, TEMP

ZUG MEDICAL SYSTEMS

Models

> SATP-MC
SPO2
PR
TEMP
Mainstream CO2

> SATP-SC
SPO2
PR
TEMP
Sidestream CO2

> SATP-SE
SPO2
PR
TEMP
External Sidestream CO2

> SATP-OX
SPO2
PR

Features

Multi-scene Application:

Bediside monitoring
Operating room
Emergency

Easy To Use

Night mode
Trend data records
Bluetooth transmission

Humanized User-interface

CapnoSET® sensor

Tini Stream™5 sensor

Anti-drop

SPECIFICATIONS

SPO2

Measurement range	0~100%
Measurement accuracy	±2%（70%~100%）Undefined （＜70%）
Measurement resolution	1%

PR

Measurement range	25~250bpm
Measurement accuracy	±3bpm
Measurement resolution	1bpm

EtCO2

Measurement range	0~20vol%
Measurement accuracy	0~12 vol%：±(0.2vol%+2%of reading） 12~20vol%：±(0.2vol%+6%of reading）
Measurement resolution	1mmHg

AwRR

Measurement range	0~150rpm
Measurement accuracy	±1rpm（0~70rpm）Undefined （within other ranges）
Measurement resolution	1rpm

TEMP

Measurement range	0~50℃
Measurement accuracy	±1℃
Measurement resolution	0.1℃

Operating Environment

Operating humidity	15%~95%RH,non-condensing
Operation temperature	0℃~40℃
Power Supply	AC100~240V(±10%）(50/60HZ) ± 3HZ , 60VA

Physical Paramter

Dimensions	80x45x180mm
Measurement accuracy	＜2kg(Without accessories)
Measurement resolution	≥ 45 dB

Regulatory Compliance

Standards compliance	IEC 80601-2-61:2017
	IEC 80601-2-56:2017
	IEC 80601-2-55:2018
	IEC 80601-2-A1:2020

ACCURATE, AFFORDABLE and yet COMPREHENSIVE.

Prime Innovation for Medical Application

SPOTLIFE® SERIES

VITAL SIGNS MONITOR

ZUG MEDICAL SYSTEMS

ALL PARAMETERS AT A GLANCE,EVEN GRAPHS AND TRENDS

SpO2 only (SPLF-OX)	SpO2 + NIBP (SPLF-NP)	SpO2 + Mainstream CO2 (SPLF-MC) SpO2 + Sidestream CO2 (SPLF-SE)
		
PARAMETERS		
SpO2	*SpO2*	*SpO2*
Pulse Rate	*Pulse Rate*	*Pulse Rate (PR)*
Perfusion Index	*Perfusion Index*	*Perfusion Index (PI)*
Photoplethysmogram	*Photoplethysmogram*	*Photoplethysmogram*
	Systolic blood pressure	*End-tidal CO_2($EtCO_2$)*
	Diastolic blood pressure	*Inspired CO_2 ($FiCO_2$)*
	Mean Arterial Pressure	*Respiration Rate (awRR)*
		Capnogram

OVERVIEW

Zug Medical System SpotLife® Vital signs monitor has been designed to serve frontline caregivers in emergency, perioperative care and ICU/NICU departments. With its accurate oximetry adapted for adult as well as neonate, it provides a continuous and accurate monitoring of the SpO2 and PR even in case of low perfusion. SpotLife® VSM is declined in versions with either NIBP or CO2 measurement with optional fast temperature monitoring.
Its handle and lightweight make it easy for transport use while its 4 stable feet allow a reliable use as bedside monitor. Cost effective, it remains a comprehensive device for multiple applications and environments.

FEATURES

- Bright, large 5" Color TFT LCD for better readability of all parameters
- Intuitive user interface
- Selectable Display modes:
  - o digits only, showing parameters values
  - o digits and graphs, showing real-time plethysmogram and capnogram/NIBP (according to model)
  - o digits, graph and trends, displaying in addition the historical values.
- 9 LED indicators to easily control patient type, units, power and alarm status
- LAN connectivity to interface with central monitor ing system (optional software to come).
- USB port for easy updates with new software functions (further connectivity and control options, addition of peripherals)
- New patient presets allowing a one step action to set all alarms limits according to patient type (Adult, Child, Neonate).
- 360° Visible and Audible alarms
- Over 72h trend data with a 1min resolution
- Built-in power supply and 2400mAh lithium battery for 6h continuous monitoring
- Bluetooth printer connectivity for record printouts (all models with option SPLF-PRT)
- Extension port upon request for custom proto cols, raw data output for research and other device connectivity.

FUNCTIONS

- Oximetry (All models):
  - o Real-time measurement of SpO2, pulse rate (PR), perfusion index (PI), and Variability of Pulse Index (PIV).
  - o Real-time photoplethysmogram display
  - o High Motion Interference Rejection with advanced anti-movement algorithm
  - o High accuracy and reliability even with low blood perfusion down to 0.05%, allowing applica tion in OR, ICU and NICU.

- NIBP (SPLF-NP model):
  - o Measurement of Systolic BP, Mean Arterial Pressure, Diastolic BP using oscillometric method.
  - o 3 measurement modes such as manual, auto and continuous
  - o hardware and software over-pressure protection
- Capnography (SPLF-SE and SPLF-MC models):
  - o Measurement of EtCO2, FiCO2 and Respiratory Rate (awRR)
  - o Real-time capnogram display
  - o Automatic barometric pressure, temperature compensation and manual anaesthetic gases compensation
- Thermometry (For all models, Option SPLF-TF):
  - o Body temperature measurement using Fast temperature probe

ENVIRONMENTAL CHARACTERISTICS

Operation	Storage
Temperature: -0℃ ~ 40℃	Temperature: -20℃ ~ 60℃
Humidity: 10% ~ 95%, non-condensing	Humidity: 10% ~ 95%, non-condensing
Atmospheric pressure: 70.0kPa ~ 106.0kPa	Atmospheric pressure: 57.3kPa ~ 106.0kPa

ELECTRICAL AND MECHANICAL CHARACTERISTICS

Electrical Power Supply	Battery
AC: 100 ~ 240V ± 10% (built-in adapter)	Built-in rechargeable lithium batteries: 11.1 V / 2400mAh
Input power: 60VA	**Mechanical**
Frequency: 50Hz/60Hz ± 3Hz	Dimensions: 255*140*95mm (LxWxH)
One equipotential grounding interface	Weight: ＜2 kg (without accessories)
Product Class: IIb (in accordance with MDD93 /42/ EEC)	

INTERFACES

Connectlvlty	HMI
• USB interface	• Optional : 6 models of configuration options
• RS232 interface	• Display: 5″ Color TFT LCD, 800 x 480pixels
• Connected to central monitor via RJ45 .	• Audio/Visual Indicators: Alarm limit reached, Alarm tone, Alarm mute, pulse strength, Patient name, Patient Type, Time, battery status, connection status.
• Bluetooth Printer	• LEDs: Adult, Neonate, Pressure Unit or SpO2/PR (according to model), battery in use, battery charging, silenced alarm.
• Ethernet Port	• User Interface language: English (additional language upon request).

PERFORMANCES

Oximetry (All models):

- SPO2: Measurement Range: 0 – 100%, Accuracy Range: 70 – 100 %, ±2% < 70%, Undefined, Resolution: 1%
- Pulse Rate: Measurement Range: 25-250 bpm, Accuracy Range: ±3%, Resolution: 1 bpm
- PI: Measurement Range: 0-20%, Resolution: 0.001%
- PIV: Measurement Range: 0-100%, Accuracy Range: Undefined, Resolution: 1%

Battery

NIBP

- o METHOD: Automatic oscillometric
- o OPERATION MODES: Manual, Automatic, Continuous
- o AUTOMATIC MODE MEASUREMENT INTERVAL: 1min/2min/3min/4min/5min/10min/15min/30min/60min/90min/2h/3h
- o CONTINUOUS MODE MEASUREMENT PERIOD: 5mins, with 5s between each measurement
- o MAXIMUM SINGLE MEASUREMENT TIME: <120s
- o MEASUREMENT RANGE: Systolic BP: Adult mode:40 ~ 270 mmHg, Pediatric mode:40 ~ 200 mmHg,
  Diastolic BP: Adult mode: 10 ~ 210 mmHg, Pediatric mode:10 ~ 162 mmHg,
  MAP: Adult mode:20 ~ 230 mmHg, Pediatric mode: 20 ~ 175 mmHg
- o ACCURACY: Mean error: <±5mmHg, Standard deviation: <8mmHg
- o STATIC PRESSURE MEASUREMENT RANGE: 0 mmHg (0kPa) ~ 300mmHg (39.9kPa)
- o STATIC PRESSURE MEASUREMENT ACCURACY: ±2mmHg or ±1% of reading (Whichever is greater)
- o RESOLUTION: 1 mmHg
- o INITIAL INFLATION PRESSURE SETTING RANGE: Adult mode: 80 ~ 280 mmHg, Pediatric mode: 80 ~ 210 mmHg
- o INITIAL INFLATION PRESSURE DEFAULT: Adult mode: 160 mmHg, Pediatric mode: 140 mmHg
- o SOFTWARE OVER-PRESSURE PROTECTION: Adult mode: 297 ±3mmHg, Pediatric mode: 240 ±3mmHg
- o ALARM RANGE: Systolic BP: Adult mode: 40 ~ 270 mmHg, Pediatric mode: 40 ~ 200 mmHg,
  Diastolic BP: Adult mode: 10 ~ 210 mmHg, Pediatric mode: 10 ~ 162 mmHg,
  MAP: Adult mode: 20 ~ 230 mmHg, Pediatric mode: 20 ~ 175 mmHg

Capnography

- o METHOD: Infrared radiation absorption technology
- o CO_2 MEASUREMENT RANGE: 0 ~ 20 Vol%
- o ACCURACY: 0 ~ 12 %: ± (0.2 Vol% + 2% of reading), 12 ~ 20 % : ± (0.2 Vol% + 6% of reading)
- o MEASUREMENT ACCURACY DRIFT: accuracy requirements within 6 hours
- o RESOLUTION: 0.1 Vol%
- o ACCURACY: Mean error: <±5mmHg, Standard deviation: <8mmHg
- o APNEA ALARM DELAY TIME: 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s
- o ALARM RANGE: EtCO2: 0 ~ 150mmHg, FiCO2: 0 ~ 150mmHg, awRR: 0 ~ 150rpm

Thermometry

- o METHOD: Infrared non-contact forefront measurement
- o TEMP MEASUREMENT RANGE: 34 ~ 42.9 °C
- o ACCURACY: 34.0 ~ 34.9 °C ± 0.3 °C, 35.0 ~ 42.0 °C ± 0.2 °C, 42.1 ~ 42.9 °C ± 0.3 °C
- o RESOLUTION: 0.1 °C
- o ALARM RANGE: 34 ~ 42 °C

ORDERING

Descrlptions
o SpotLife® Oximeter Only, with Adult SpO2 reusable probe
o SpotLife® Oximeter and NIBP, with Adult SpO2 reusable probe and Adult NIBP Cuff
o SpotLife® Oximeter and Mainstream CO2 sensor, with Adult SpO2 reusable probe, one set of adult and neonate reusable airway adapters
o SpotLife® Oximeter and External Sidestream CO2 sensor, with Adult SpO2 reusable probe, CO2 microstream canula.
o Optional non contact infrared Fast TEMP probe with cable
o Optional Bluetooth thermal printer with one thermal paper roll
o Optional Roll stand fixed height, locking wheels, with basket, with or without tilt

ACCURATE, AFFORDABLE and yet COMPREHENSIVE.

Prime Innovation for Medical Application

SPOTLIFE® TOUCH SERIES

VITAL SIGNS MONITOR

ALL PARAMETERS AT A GLANCE,EVEN GRAPHS AND TRENDS

More than a Standalone Device

Connectivity Ability

Historical Management

Powerful Parameter Measurement

OVERVIEW

Zug Medical System SpotLife® Vital signs monitor has been designed to serve frontline caregivers in emer gency, perioperative care and ICU/NICU departments.

With its accurate oximetry adapted for adult as well as neonate, it provides a continuous and accurate monitoring of the SpO2 and PR even in case of low perfusion. SpotLife® VSM is declined in versions with either NIBP or CO2 measurement with optional fast temperature monitoring.

Its handle and lightweight make it easy for trans port use while its 4 stable feet allow a reliable use as bedside monitor. Cost effective, it remains a comprehensive device for multiple applications and environments.

FEATURES

Configureable:

CanoSET®

TiniStream®

Multi-scenario application: Operating room, ICU, Respiratory, CBR, Physical examination.....

Operating room

ICU

Out-of-hospital emergency

Transport hospital

- It is equiped with a 5' TFT display and the display panel is inclined at 15°, which is convenient for doctors to view .
- 72-hour data storage , uninterrupted recording trend data, with dual alarm function of sound and light , alarm parameters
- RS232 serial port data transmission function .
- Multiple models, standard configuration SPO2, select configuration NIBP、EtCO2.
  XH60-A:SPO2, NIBP
  XH60-B:SPO2, Internal Sidestream EtCO2
  XH60-C:SPO2, Mainstream EtCO2
  XH60-D:SPO2
  XH60-E:SPO2, NIBP, Mainstream EtCO2
  XH60-S:SPO2, NIBP, Internal Sidestream EtCO2

ENVIRONMENTAL CHARACTERISTICS

Operation	Storage
Temperature: -0℃ ~ 40℃	Temperature: -20℃ ~ 60℃
Humidity: 10% ~ 95%, non-condensing	Humidity: 10% ~ 95%, non-condensing
Atmospheric pressure: 70.0kPa ~ 106.0kPa	Atmospheric pressure: 57.3kPa ~ 106.0kPa

ELECTRICAL AND MECHANICAL CHARACTERISTICS

Electrical Power Supply	Battery
AC: 100 ~ 240V ± 10% (built-in adapter)	Built-in rechargeable lithium batteries: 11.1 V / 2400mAh
Input power: 60VA	**Mechanical**
Frequency: 50Hz/60Hz ± 3Hz	Dimensions: 255*140*95mm (LxWxH)
One equipotential grounding interface	Weight: 1.5 kg (without accessories)
Product Class: IIb (in accordance with MDD93 /42/ EEC)	

INTERFACES

Connectlvlty	HMI
• USB interface	• Optional : 6 models of configuration options
• RS232 interface	• Display: 5" Color TFT LCD, 800 x 480pixels
• Connected to central monitor via RJ45 .	• Audio/Visual Indicators: Alarm limit reached, Alarm tone, Alarm mute, pulse strength, Patient name, Patient Type, Time, battery status, connection status.
• Bluetooth Printer	• LEDs: Adult, Neonate, Pressure Unit or SpO2/PR (according to model), battery in use, battery charging, silenced alarm.
• Ethernet Port	• User Interface language: English (additional language upon request).

PERFORMANCES

Oximetry(All models):

- SPO_2: Measurement Range: 0 – 100%, Accuracy Range: 70 – 100 %, ±2% < 70%, Undefined, Resolution: 1%
- Pulse Rate: Measurement Range: 25-250 bpm, Accuracy Range: ±2%, Resolution: 1 bpm
- PI: Measurement Range: 0-20%, Resolution: 0.001%
- PIV: Measurement Range: 0-100%, Accuracy Range: Undefined, Resolution: 1%

NIBP(SPLF-NP model only)

- o METHOD: Automatic oscillometric
- o OPERATION MODES: Manual, Automatic, Continuous
- o AUTOMATIC MODE MEASUREMENT INTERVAL: 1min/2min/3min/4min/5min/10min/15min/30min/60min/90min/2h/3h
- o CONTINUOUS MODE MEASUREMENT PERIOD: 5mins, with 5s between each measurement
- o MAXIMUM SINGLE MEASUREMENT TIME: 180s
- o MEASUREMENT RANGE: Systolic BP: Adult mode:40 ~ 270 mmHg, Pediatric mode:40 ~ 200 mmHg,
  Diastolic BP: Adult mode: 10 ~ 210 mmHg, Pediatric mode:10 ~ 162 mmHg,
  MAP: Adult mode:20 ~ 230 mmHg, Pediatric mode: 20 ~ 175 mmHg
- o ACCURACY: Mean error: <±5mmHg, Standard deviation: <8mmHg
- o STATIC PRESSURE MEASUREMENT RANGE: 0 mmHg (0kPa) ~ 300mmHg (39.9kPa)
- o STATIC PRESSURE MEASUREMENT ACCURACY: ±2mmHg or ±1% of reading (Whichever is greater)
- o RESOLUTION: 1 mmHg
- o INITIAL INFLATION PRESSURE SETTING RANGE: Adult mode: 80 ~ 280 mmHg, Pediatric mode: 80 ~ 210 mmHg
- o INITIAL INFLATION PRESSURE DEFAULT: Adult mode: 160 mmHg, Pediatric mode: 140 mmHg
- o SOFTWARE OVER-PRESSURE PROTECTION: Adult mode: 297 ±3mmHg, Pediatric mode: 240 ±3mmHg
- o ALARM RANGE: Systolic BP: Adult mode: 40 ~ 270 mmHg, Pediatric mode: 40 ~ 200 mmHg,
  Diastolic BP: Adult mode: 10 ~ 210 mmHg, Pediatric mode: 10 ~ 162 mmHg,
  MAP: Adult mode: 20 ~ 230 mmHg, Pediatric mode: 20 ~ 175 mmHg

Capnography

- o METHOD: Infrared radiation absorption technology
- o CO_2 MEASUREMENT RANGE: 0 ~ 20 Vol%
- o ACCURACY: 0 ~ 12 %: ± (0.2 Vol% + 2% of reading), 12 ~ 20 % : ± (0.2 Vol% + 6% of reading)
- o MEASUREMENT ACCURACY DRIFT: accuracy requirements within 6 hours
- o RESOLUTION: 0.1 Vol%
- o ACCURACY: Mean error: <±5mmHg, Standard deviation: <8mmHg
- o APNEA ALARM DELAY TIME: 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s
- o ALARM RANGE: EtCO2: 0 ~ 150mmHg, FiCO2: 0 ~ 150mmHg, awRR: 0 ~ 150rpm

Thermometry

- o METHOD: Infrared non-contact forefront measurement
- o TEMP MEASUREMENT RANGE: 34 ~ 42.9 °C
- o ACCURACY: 34.0 ~ 34.9 °C ± 0.3 °C, 35.0 ~ 42.0 °C ± 0.2 °C, 42.1 ~ 42.9 °C ± 0.3 °C
- o RESOLUTION: 0.1 °C
- o ALARM RANGE: 34 ~ 42 °C

ORDERING

Descrlptions	Descrlptions
SPLF-OX	o SpotLife® Oximeter Only, with Adult SpO2 reusable probe
SPLF-NP	o SpotLife® Oximeter and NIBP, with Adult SpO2 reusable probe and Adult NIBP Cuff
SPLF-MC	o SpotLife® Oximeter and Mainstream CO2 sensor, with Adult SpO2 reusable probe, one set of adult and neonate reusable airway adapters
SPLF-SE	o SpotLife® Oximeter and External Sidestream CO2 sensor, with Adult SpO2 reusable probe, CO2 microstream canula.
SPLF-TF	o Optional non contact infrared Fast TEMP probe with cable
SPLF-PRT	o Optional Bluetooth thermal printer with one thermal paper roll
RS-XXXX	o Optional Roll stand fixed height, locking wheels, with basket, with or without tilt

Portable

Accurate

Compact

Comfortable

Prime Innovation for Medical Application

SatLite® series

Handheld Pulse Oximeter

Overview

SatLite series are two hand held pulse oximeter and capnograph devices. They can be used for a variety of patients including but not limited to hospital's operation room, ICU, clinic section office, out-patient department, sickroom, emergency treatment, and recovery. They can also be used in health care organizations, at home or while transporting patients.

These devices are portable, lightweight and are designed to provide first respondents, clinicians and care givers with fast, reliable and accurate measurements in any healthcare setting. Some models come with a fingertip probe which comfortably attaches to the finger and the fine sensor helps in recording accurate results.

SATLite series offers two hand held devices: SATL-LCD and SATL-TFT (out of which the SATL-TFT device has a range of models to choose from)

SATL-LCD

SATL-OLED

TiniStream®5

Optional CO_2 Sensor

M401 Sensor

Product features

- Used for measurement of SpO2, PR and PI
- Transfers the real-time pulse wave signal, which is based on the absorption of infrared spectrum
- Large and easy to read LCD screen
- Screen backlight switch function with electromagnetic compatibility that helps to see the screen in the dark
- Result statistics available in numeric form with a moving pulse bar format
- Automatic shutdown function
- Supports data storage which can be redisplayed later
- Data can be exported to any device
- Time and date can be adjusted
- Adult finger clip probe is included with the device
- Sound alerts for key tone, pulse tone, low oxygen, low pulse rate and high pulse rate
- Efficient battery consumption with power indicator displayed on the screen
- Uses 3 AA batteries with long run time of up to 10 hours

SATL-LCD

- 3.2"TFT color display with touch screen and adjustable brightness
- Available in 4 different models with multiple options (listed below)
- Result statistics are shown in numeric, plethysmogram and capnogram format (depending on the model)
- Fingertip probe helps in detecting the SPO2 readings
- Time and date can be adjusted
- Device is automatically shut down if not used for a particular time period to save battery
- Efficient battery consumption with power indicator displayed on the screen
- Sound alerts for key tone, pulse tone, low oxygen, low pulse rate and high pulse rate
- Supports data storage which can e redisplayed later
- Data can be exported to any device
- Multilanguage device with 8 options to choose from (English, French, German, Polish, Spanish, Portuguese, Russian and Chinese)

SATL-OLCD

SATL-OX

- Used for measurement of SpO_2 with PR, PI, RR
- This model includes an adult fingertip probe

SATL-OXT

- Used for measurement of SpO_2 with PR, PI, RR
- This model includes an adult fingertip probe and rechargeable Lithium battery

SATL-OXP

- Used for measurement of SpO_2 with PR, PI, RR
- This model includes rechargeable Lithium battery
- Optional skin temp sensor
- Optional 1 channel ECG
- Optional rubber protection
- Optional deck holder

SATL-MC

- Used for measurement of SpO_2 with PR, PI, RR, $EtCO_2$, AWRR
- This model includes an adult fingertip probe, rechargeable Lithium battery and CapnoSET mainstream CO_2 with one airway adapter

SPECIFICATIONS

SPO2	
Measurement range	0~100%
Measurement accuracy	±2%（70%~100%）Undefined （<70%）
Measurement resolution	1%
PI	
Measurement range	0~20%
Measurement accuracy	Undefined
Measurement resolution	0.001%
PR	
Measurement range	25~250bpm
Measurement accuracy	±3bpm
Measurement resolution	1bpm
CO2	
Measurement range	0~20.0vol%
Measurement accuracy	0~12.0%:±(0.2vol%+2% of reading) 12~20.0%:±(0.2vol%+6% of reading)
Measurement resolution	1rpm
AwRR	
Measurement range	0~150rpm
Measurement accuracy	±1rpm（0~70rpm）Undefined （<70rpm）
Measurement resolution	1rpm
Compliance	
Standards compliance	IEC 60601-1:2012 IEC 60601-1-8:2012 IEC 60601-1-12:2014 ISO 80601-2-61:2011 ISO 80601-2-55:2018

Portable
Accurate
Compact
Comfortable

Prime
Innovation
for Medical
Application

SatLite®Touch SERIES

Handheld Pulse Oximeter

More than a Standalone Device

Infant population

Oxygen-treat population

Clinical department

Continued use monitoring

SpO2 ACCESSORIES

Adult Finger Clip
OR-CS

Pediatric Finger Clip
OR-CS

Adult Soft Slilicon
OR-DS

Pediatric Soft Slilicon
OR-ES

Neonate FootWrap
OR-FS

PRODUCT FEATURES

HD

3.7 iNCH
Display Screen

>55dB
Alarm Volume

72H
Trend Record

EVERYTHING YOU NEED FOR OXIMETRY

- Pulse Bar graph
- Plethysmogram
- Multi-language
- Store/Review Patient SPO2 & pr Trend
- Spot/Monitor Mode
- Record Patient Name
- Patient Type Selection
- Date access via USB port
- Probe Faule & Presence Detection
- Adjustable Volume & Backlight
- Nellcor Compatible SPO2 sensor

TECHNICAL SPECIFICATIONS

SPO2

Measurement range	0~100%
Measurement accuracy	±2%（70%~100%）Undefined （＜70%）
Measurement resolution	1%

PI

Measurement range	0~20%
Measurement accuracy	Undefined
Measurement resolution	0.001%

PR

Measurement range	25~250bpm
Measurement accuracy	±3bpm
Measurement resolution	1bpm

RR

Measurement range	5~150bpm
Measurement accuracy	±2bpm

Compliance

Standard	ISO 80601-2-61:2011

ECG(Optional-Some models only-Non CE Cert)

Measurement range	0.15mV-5.5mV
Measurement accuracy	2.36uV/LSB
Measurement resolution	Undefined

HR(Optional-Some models only-Non CE Cert)

Measurement range	13~300bpm
Measurement accuracy	±1bpm
Measurement resolution	1bpm

TEMP(Optional-Some models only-Non CE Cert)

Measurement range	TBD°C
Measurement accuracy	±TBD°C

Display

Size and Type	3.2" Touchscreen TFT
Languages	English,French,German,Polish,Spanish,Russian Sinplified&Traditional Chinese,Portugese
Buttons	6 soft silicon buttons

PACKAGE CONTENT AND OPTIONS

Included:SatLite Plus Device,Adult SpO2 Finger Clip Sensor, Rechargeable Lithium Battery,USB Cable.

Optional:USB 5V Power Supply Adapter,Additional SPO2 sensors,Dock, Silicon Protection,TEMP and ECG functions.

INTERFACES AND POWER SUPPLY

DB9 Connector for Nellcor compatible SPO2 Sensor.

USB Port for 5V power charging and data export

Built-in and Replaceable Lithium battery for up to 12h continuous operation.

Prime Innovation for Medical Application

SatTip® SERIES

Finger Pulse Oximeter

Accurate Spot Check
User Friendly Interface
Emergency Companion
Connectivity

Overview

SatTip device is a life-saver portable pulse oximeter. It displays highly accurate readings of SpO2, Pulse Rate, Perfusion index and Respiration Rate. Ideal for all medical setups (hospital, clinics, EMS) and homecare related applications where prompt and precise measurement of vital signs is required. With SatTip, monitoring of persistent respiratory diseases, long-term geriatric illnesses and patient transport is done with ease and precision.

SATT-S200 digital finger pulse oximeter is the basic model of SatTip Series that offers the features of a conventional oximeter in a compact, user friendly, portable configuration. With its dual wavelength detection, it accurately measures blood oxygen saturation levels (SpO2) and pulse rate (PR) on LED display.

The SATT-S400 variant has additional features of measuring perfusion index (PI), Respiration Rate (RR) and Optional Bluetooth connectivity along with a highly accurate SpO2 bar graph and plethysmogram on an easy-to-read organic light-emitting diode (OLED) display. It also supports multiple languages (English, French, Italian, Spanish, Portuguese, Russian).

SATT-S200

> LED Display
> SPO2
> Pulse Rate
> Pulse Bar

SATT-S400

> OLED Display
> SPO2
> Pulse Rate
> Perfusion Index
> Respiration Rate
> Pleth / Pulse Bar
> Adjustable Brightness
> Optional Bluetooth

Features

- Each device is Individually tested for accuracy and undergoes rigorous testing
- The only LED pulse oximeter that can read and display up to 100% for SpO2 value
- Lightweight, compact, attractive makes it easier to carry, and simple operations
- SpO2 and PR High & Low Alarm settings.
- Very low power consumption with power indicator; two AAA batteries can power the SatTip Oximeters continuously for up to 6 hours
- Multi colors OLED display with Adjustable brightness
- Displays SpO2, PR, SpO2 waveform (pleth or line)
- Calculation of Respiration Rate based on SpO2 signal
- Displays signal strength
- Beep on Pulse (on/off) and Demo mode.
- Automatically powered off when not in use for longer than 8 seconds
- Four directional display modes, convenience to overview the data
- Accommodates widest range of finger sizes from pediatric to adult

Multi-directional Screen Display
Manual screen rotate function

Plethysmographic Waveform
Provides high-resolution display of the patient's pleth waveform

Durable, Lightweight Design
For use in clinical and homecare environments.

Classic Operation Button
A small button integrates all functions, avoids tedious operations, and brings customers an immersive consumer experience.

A Variety Of Model Color Matching
Available in Five colours: Green, Yellow, Pink, Blue and Black

Display Types

> SATT-200 has a 1.5-inch Red LED Segment Display. It can monitor Pulse Rate, SPO2 level, and display a Pulse bar.

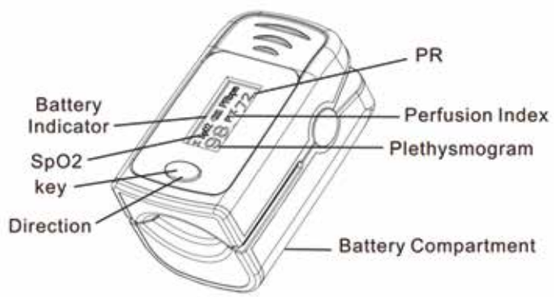
> SATT-400 has a 0.96-inch OLED Color Display. It can monitor Pulse Rate, SPO2 level, Perfusion index, Respiration Rate and Pleth, Pulse Bar.

Display Orientation

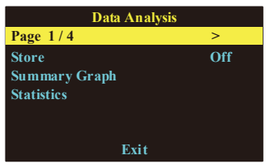
> The front view of SATT-S400 includes screen display and a function key. The screen display measurement information concerning parameters and waveforms. The function of the keys is to control the boot, switch the screen orientation and enter or exit the function menu.

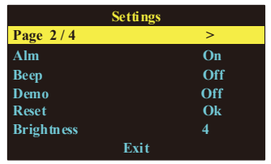
> Each time one presses the button for less than 0.5 seconds, one can switch between 6 different display interfaces. As shown in the pictures on the right.

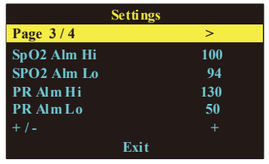
Menu Selection

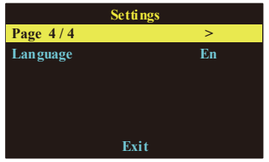


> The button allows 2 modes according to the pressing time:
- Short-press (below 0.5sec) is used to select an item by moving a highlight bar to the next item,
- while a long-press (above 0.5sec) is used to change the item's value, status or open a new page.





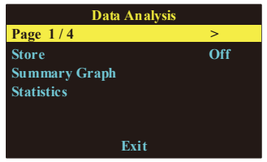




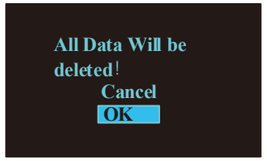
> Long-press on the power button in sequence, the oximeter will open the Menu page as shown in Figures.

When the bar is on the second row, a long-press makes the screen switch to the next page.

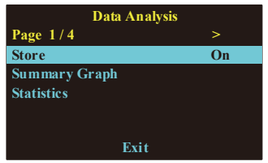
Data Analysis Function



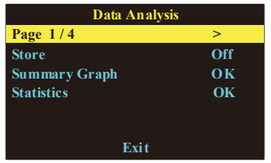
A



B



C

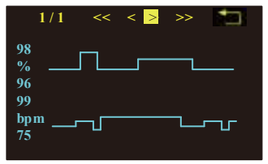


D

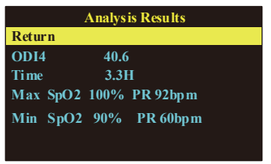
Data Analysis Setup

Long-press the button, select "store" on Figure A, then the display is shown as Figure B. Select "OK", the status of "Store" will change to "On" (Figure C). Then put the finger into rubber hole of the oximeter to start a new continuous measurement. The maximum recording time is 8 hours. When the measurement is finished, take off the oximeter. Long-press the button change the status of "Store" to "Off" or turn on the oximeter again and then the status of "Store" also display "Off" as shown on Figure D.

Results Analysis Display



E



F

Results Analysis Viewing

Once the "Store" status is off and "Summary Graph" and "Statistics" are OK, select "Summary Graph" with a long press to open the graph page as shown in Figure E. Each full page display 15 minutes. Select "<" or ">" and long press to see the previous or next page. Select "<<" or ">>" and long press to see the first or last page. Select Return Arrow to return to Figure D. Select "Statistics" and long press to open the Statistics page as shown Figure F.

	SATT-S200	SATT-S400
Parameters		
SpO2 (Oxygen Saturation)	✓	✓
PR (Pulse Rate)	✓	✓
Pi (Perfusion Index)		✓
RR (Respiration Rate)		✓

Technical Specifications

Operating Environment

Operating Temperature	0 to 40°C
Operating Humidity	15% to 95% RH (non-condensing)
Atmospheric pressure	70.0 kPa to 106.0 kPa

Storage Environment

Storage Temperature	-20 to 60°C
Storage Humidity	10% to 95% RH (non condensing)
Atmospheric pressure	57.3 kPa to 106.0 kPa

SPO2 Measurement

Range	0 ~ 100%
Display Resolution	1%
Accuracy	For 70 ~100% : +/-2%. For 0 ~ 69% : unspecified

Pulse Rate Measurement

Range	25 ~ 250 bpm
Display Resolution	1 bpm
Accuracy	+/-3 bpm

PI

Measurement range	0~20%
Measurement accuracy	Undefined
Measurement resolution	0.001%

RR

Measurement range	5~150bpm
Measurement accuracy	±2bpm

Display Screen

Type	Red LED Segments or OLED
Size	For OLED Model: 0.96inch
Resolution	128 x 64 dots

Physical Characteristics

Size	64.5 x 38.2 x 35mm (L x W x H)
Weight	44g

Battery & Regulatory Compliance

Operating Batteries	Two 1.5 Volt AAA Batteries
EMC	EN 60601-1-2:2015
EMC Type	Class A
Anti-Electroshock Type	Class II Oximeter And internal Powered Oximeter
Anti-Electroshock Degree	BF Type
Waterproof Class	IPX2
Pulse Oximetry Standard	ISO 80601-2-61: 2017, COR1: 2018

Ordering

Part Number	Designation		Included with device
SATT-S200 or SATT-S400	SatTip module	1	
SATT-L	Lanyard	1	
SATT-M	Instructions Manual	1	
SATT-B	AAA battery	2	(not provided)

For more information, please contact us: info@zugmed.com

Prime Innovation for Medical Application

SatEx External pulse Oximeter

SpO2 Sensor Connector

Customisable Connector

COMPACT,LOW-POWER,EASY-TO-INTEGRATE EXTERNAL PULSE OXIMETER

- Highly reliable medical grade application module .
- Plug and play, Satisfied accuracy after power-on .
- Size : 83 x 30.3 x 23mm (L x W x H). Cable length: 0.8m.
- Support real-time monitoring of adults, children and infant.
- Integrated outside the equipment, suitable pulse oximetry solution for medical products.
- Many SpO2 sensors available. Nellcor Compatible.

PRODUCT FEATURES

- Durable, lightweight design
- Plug and play
- Anti-motion interference
- Low perfusion measurement
- Customisable connectors

SPECIFICATIONS

SPO2	PVI
Range: 0~100%	Range:100%
Accuracy: ±2%(70%~100%)Undefined（＜70%）	Accuracy: Underfined
Resolution: 1%	Resolution: 1%

PR	Operating Environment
Range: 25~250bpm	Temperature: Operating 0°C ~ 45°C(50°F ~ 113°F) Store -20°C ~ 55°C(40°F ~ 131°F)
Accuracy: ±3bpm	Humidity: Operating 0%~85%RH,non-condensing Store 0%~93%RH,non-condensing
Resolution: 1bpm	Pressure: Operating -500~5000m Store -500~13200m

AwRR	Compliance
Range: 0~20%	Standards: ISO 80601-2-61:2011
Accuracy: Undefined	
Resolution:0.001%	

Measure Distance Between 5~15cm

Prime Innovation for Medical Application

Non-Contact Infrared Body Thermometer

Overview

This is non-contact Infrared body/object thermometer with high accuracy measurement has a color coded LCD according to the temperature measured. The LCD background light will turn RED in case of high fever (over 38.1°C / 100.6°F), while it would remain GREEN for temperature below 37.3°C / 99.1°F, and ORANGE in between those temperature. It is very light and compact allowing to be stored in a nurse pocket easily.

The device can be used for home or in medical environment. It gives results within a second with an accuracy of 0.2°C (0.4°F) and allowing measurement from a distant of 1 to 5cm. It has a body mode for body temperature check or object mode for surface temperature check. It has a possible offset adjustment if the user wishes to make the temperature match with another temperature reference device.

Advantages

- Accurate 0.2°C(0.4°F)
- Non-contact 5-15cm
- Measure range 0-100°C(32-212°F)
- Color Alarm

Normal

Slight Fever

High Fever

Optional Function

- Voice Function
- Wireless Communication Function by Bluetooth 2.0 or 4.0
- Wire Communication Function by 232,USB etc
- Pet body thermomter & Kitchen thermometer

Model:SPLF-TD

with Serial Output For SpotLife Connection

Model:TD-IRPRO2

Standalone IR Thermometer

Optional function

For Body Temperature

For Liquid Temperature

For Object Temperature

For Ambient Temperature

Specifications

Environmental characteristics

Operating Conditions	Storage/Transport Conditions
• Temperature: 15°C ~ 40°C (59°F ~ 104°F)	• Temperature: -20 ~ 55°C (-4 to 131°F)
• Humidity: ≤ 85%, non-condensation	• Humidity: ≤ 93%, non-condensation
• Atmospheric pressure: 70.0kPa ~ 106.0kPa	• Atmospheric pressure: 70kPa ~ 106.0kPa

Electrical and Mechanical characteristics

Battery	Storage/Transport Conditions
• 1.5V (AAA), Alkaline battery x 2 (IEC Type LR03)	• Dimensions: 138 x 95 x 40mm (LxWxH)
	• Weight: 90g (without accessories)

Interfaces

HMI

- Four buttons: Set, up and down buttons, fire
- Display: LCD, with 3 background color according to temperature measured
- Display shows temperature, unit, measurement mode and icon indicating if temperature is acceptable
- Offset adjust of +/- few degrees
- Battery level indicator
- Beep indicator
- Memory indication

Performances

Thermometry

- Rated Output Range: - Body mode: 34.0 ~ 43.0°C / 93.2 ~ 109.4°F
  - Surface mode: 0 ~ 100°C / 32 ~ 212°F
- Laboratory Accuracy in Body Mode: 34.0 ~ 34.9°C: ±0.3°C / 93.2 ~ 94.8°F : ±0.5°F
  35.0 ~ 42.0°C: ±0.2°C / 95.0 ~ 107.6°F : ±0.4°F
  42.1 ~ 43.0°C: ±0.3°C / 107.8 ~ 109.4°F : ±0.5°F
- Laboratory Accuracy in Surface Mode: ±2°C / ±3.6°F
- Display Resolution : 0.1°C / 0.1°F
- Three-color Backlight: 34.0 ~ 37.3°C / 95.9 ~ 99.1°F : Green backlight (Normal Temperature)
  37.4 ~ 38.0°C (Alarm point) / 99.3 ~ 100.4°F : Yellow backlight (Slight Fever)
  38.1 ~ 43.0°C / 100.6 ~ 109.4°F : Red backlight (High Fever)
  Note that for surface mode, the backlight is always Green color.
- Auto Power Off Time: ≤ 18s
- Measuring Time: ≤ 2s
- Measuring Distance: 1 ~ 5cm (0.4 ~ 2in)
- Memories: 50

Standard Compliance

- Safety standard: EN 60601-1:2006+A1:2013, EN 60601-1-2:2015
- Front Panel and Case Labeling: EN ISO15223-1:2016
- Temperature Measurement: EN ISO80601-2-56:2017
- Home Healthcare Environment: EN 60601-1-11:2015
- IP22

Prime Innovation for Medical Application

SpotLife®

Vital Signs Monitor Veterinary Series

All Parameters at a glance,even graphs and trends

SPO2 only (SPLFV-OX)	SPO2 +Mainstream CO2(SPLFV-MC) SPO2 +Sidestream CO2(SPLFV-SE)	
SPO2	SPO2	End-tidal CO2(EtCO2)
Pluse Rate(PR)	Pluse Rate(PR)	Inspired CO2(FiCO2)
Perfusion Index(PI)	Perfusion Index(PI)	Respiration Rate(AwRR)
Photoplethysmogram	Photoplethysmogram	Capnogram

Overview

SpotLife Vet is a vital signs monitor that comes in 3 versions for the benefit of the veterinary market. The SpO2 only model helps accurate oximetry monitoring of even the smallest animals thanks to its high performances in low perfusion condition. The 2 other models include capnography (mainstream or sidestream) along with oximetry. They will appear to be indispensable and reliable with intubated animals during surgery. The clear and easy to read LCD will show real-time pleth and capnogram, allowing vets to confirm proper intubation, and whether the animal is in respiratory distress. SpotLife compatible airway adapters allow smooth connection to any anesthesia systems.
Its handle and lightweight make it easy for transport use as well as use in operating theaters. Cost effective, it remains a comprehensive device for multiple applications on a wide range of animals and environments.

Features

- Bright, large 5" Color TFT LCD for better readability of all parameters
- Intuitive user interface
- Selectable Display modes:
  - o digits only, showing parameters values
  - o digits and graphs, showing real-time plethysmogram and capnogram/NIBP (according to model)
  - o digits, graph and trends, displaying in addition the historical values.
- 9 LED indicators to easily control patient type, units, power and alarm status
- LAN connectivity to interface with central monitoring system (optional software).
- USB port for easy updates with new software functions (further connectivity and control options, addition of peripherals)
- New patient presets allowing a one step action to set all alarms limits according to patient type (Adult, Child, Neonate).
- 360deg Visible and Audible alarms
- Over 72h trend data with a 1min resolution
- Built-in power supply and 2400mAh lithium battery for 6h continuous monitoring
- Extension port upon request for custom protocols, raw data output for research and other device connectivity.

Functions

Oximetry (All models):
- o Real-time measurement of SpO2, pulse rate (PR), perfusion index (PI), and Variability of Pulse Index (PIV).
- o Real-time photoplethysmogram display
- o High Motion Interference Rejection with advanced anti-movement algorithm
- o High accuracy and reliability even with low blood perfusion down to 0.05%, allowing application in OR, ICU and NICU.

- Capnography (SPLFV-SE and SPLFV-MC models):
  - o Measurement of EtCO2, FiCO2 and Respiratory Rate (awRR)
  - o Real-time capnogram display
  - o Automatic barometric pressure, temperature compensation and manual anaesthetic gases compensation
- Thermometry (Option TBD):
  - o Body temperature measurement using Fast temperature probe

Environmental characteristics

Operation	Storage
Temperature: -0℃ ~ 40℃	Temperature: -20℃ ~ 60℃
Humidity: 10% ~ 95%, non-condensing	Humidity: 10% ~ 95%, non-condensing
Atmospheric pressure: 70.0kPa ~ 106.0kPa	Atmospheric pressure: 57.3kPa ~ 106.0kPa

Electrical and Mechanical characteristics

Electrical Power Supply	Storage
AC: 100 ~ 240V ± 10% (built-in adapter)	Built-in rechargeable lithium batteries: 11.1 V / 2400mAh
Input power: 60VA	**Mechanical**
Frequency: 50Hz/60Hz ± 3Hz	Dimensions: 255*140*95mm (LxWxH)
One equipotential grounding interface	Weight: ＜2 kg (without accessories)
Product Class: IIb (in accordance with MDD93 /42/ EEC)	

Interfaces

Connectlvlty	HMI
• USB interface • RS232 DB9 interface • Ethernet Port	• Five buttons:Power switch,alarm stop,alarm pause,up and down buttons,menu • Display: 5" Color TFT LCD, 800 x 480pixels • Audio/Visual Indicators: Alarm limit reached, Alarm tone, Alarm mute, pulse strength, Patient ID, Patient Type, Time, battery status. • LEDs: Adult, Neonate, Pressure Unit or SpO2/PR (according to model), battery in use, battery charging, silenced alarm. • User Interface language: English ,Italian,Hungarian(additional language upon request).

Performances

Oximetry(All models):

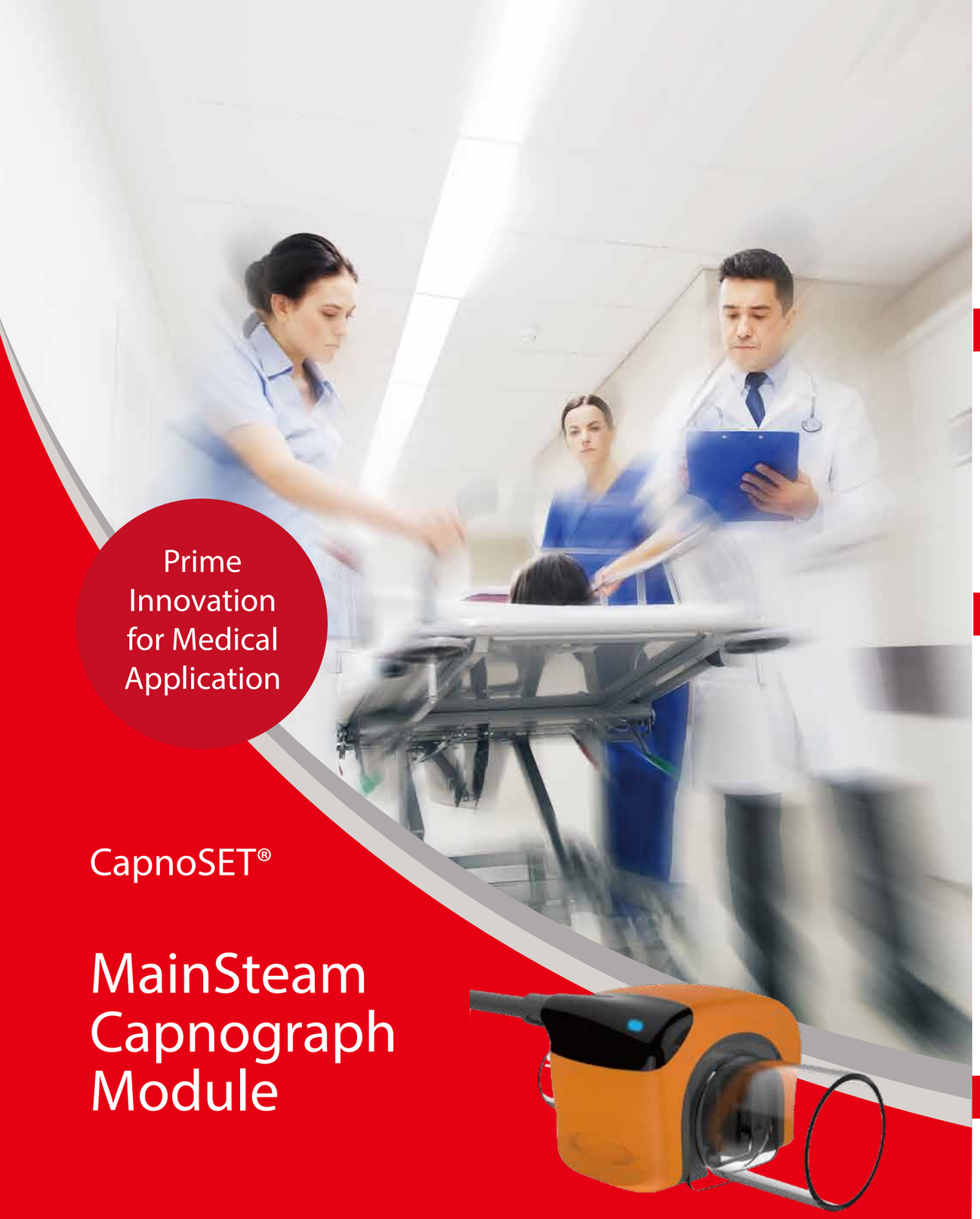
- Sp02: Measurement Range: 0 – 100%, Accuracy Range: 70 – 100 %, ±2% < 70%, Undefined, Resolution: 1%
- Pulse Rate: Measurement Range: 25-250 bpm, Accuracy Range: ±2%, Resolution: 1 bpm
- PI: Measurement Range: 0-20%, Resolution: 0.001%
- PIV: Measurement Range: 0-100%, Accuracy Range: Undefined, Resolution: 1%

Capnography(SPLFV-MC and SPLFV-SE models)

- Method: Infrared radiation absorption technology
- CO2 measurement range: 0 ~ 20 Vol%
- Accuracy: 0 ~ 12 %: ± (0.2 Vol% + 2% of reading), 12 ~ 20 % : ± (0.2 Vol% + 6% of reading)
- Measurement accuracy drift: accuracy requirements within 6 hours
- Resolution: 0.1 Vol%
- Accuracy: Mean error: <±5mmHg, Standard deviation: <8mmHg
- Apnea alarm delay time: 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s
- Alarm range: EtCO2: 0 ~ 150mmHg, FiCO2: 0 ~ 150mmHg, awRR: 0 ~ 150rpm
- Sampling volume: 50ml/min (applied to SPLFV-SE side-stream model only)

Ordering

Models	Descriptions
SPLFV-OX	• SpotLife Oximeter Only, with Adult SpO2 reusable probe
SPLFV-MC	• SpotLife Oximeter and Mainstream CO2 sensor, with tongue/ear clip SpO2 reusable probe, one set of large/small animal reusable airway adapters
SPLFV-SE	• SpotLife Oximeter and External Sidestream CO2 sensor, with tongue/ear clip SpO2 reusable probe, one CO2 microstream disposable canula.



Prime Innovation for Medical Application

CapnoSET®

MainSteam Capnograph Module

Overview

Easy to integrate, our capnography technology is available in inexpensive and reliable mainstream or sidestream versions for manufacturers of patient monitors, anesthesia machines and ventilators.

CapnoSET is an excellent plug and play alternative module for your CO2 gas analysis needs.

Features

- Real-time and continuous measurement of EtCO2, InsCO2, Respiratory Rate
- Supports monitoring patients with high respiration rates, up to 150 rpm
- Sensitive CO_2 detection, can detect minimum 0.1 vol% CO_2 change
- High accuracy of Mainstream CO_2 measurement
- Sensor software and Hardware status
- Short rise-up time (< 90ms)
- Capnogram data
- Wide range of gas measurement(0-20%)
- Compact and lightweight design (less than 35grs)
- Plug and play, easy to integrate for OEM manufacturers.
- Smart temperature control algorithm to prevent water condensation
- Simple interfacing with RS232 serial interface, output on DB9 connector
- Automatic barometric pressure, temperature and anaesthetic gases compensation

Specifications

General

Principal of Operation: Non-dispersive Infrared (NDIR) single beam optics, dual wavelenght, no moving parts.
Mechanical Robustness: Compliant with the requirements of ISO 80601-2-55:2011 (Shock and Vibration).
Weight: ≤ 35g
Dimension : 43 x 32 x 26 mm
Power Supply : 5V DC ±5%
Warm-up Power Consumption : ≤ 2.5W
Typical Power Consumption: ≤ 1.5W
Interface: RS-232 serial interface at 19200bps, Connection via DB9 connector.

Environment

Operating Temperature : 10°C ~ 40 °C (50°F ~ 104°F)
Storage Temperature : -20°C ~ 70°C (4°F ~ 158°F)
Humity : 15% ~ 95%, non condensing
Pressure : 400 ~ 1200 hPa

Performances

Measurements: EtCO2, InsCO2, RR and real-time CO_2
Automatic Compensation: Atmospheric pressure, temperature and anesthetic gases.
Warm-up Time: about 30s
Rise Time: ≤ 90ms
Sample Frequency: 25Hz
Total System Response Time: ≤ 1s
Measurements:
• CO_2 Range 0 ~ 20 vol%
• CO_2 Resolution 0.1 vol%
• CO_2 Accuracy:
0 ~ 12%: ±(0.2vol%+2% of reading)
12 ~ 20%: ±(0.2vol%+6% of reading)
AwRR Range : 0 ~ 150rpm
AwRR Resolution : 1rpm
AwRR Accuracy: 0 ~ 70rpm, ±2rpm, otherwise undetermined.
Breath Detection: Adaptive threshhold, minimum 1 vol% change in CO_2 concentration.

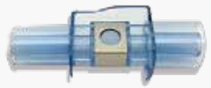
Lorem ipsum

Airway Adapters

For Adults & Pediatric
Less than 5ml deadspace
ET Tubes>4.0mm
Disposable.

Part # SGMC-DA

For Neonate
Less than 1ml deadspace.
ET Tubes≤ 4.0mm
Disposable



Part # SGMC-DN

Prime Innovation for Medical Application

TiniStream®

External Sidestream Capnograph Module

Part # SGSE

Overview

Our capnography technology is available in inexpensive and reliable mainstream or sidestream versions for manufacturers of patient monitors, anesthesia machines and ventilators.

SensoGas-SE is an excellent external sidestream alternative for CO2 gas measurement adaptable to your applications.

Features

- Real-time and continuous measurement of EtCO2, InsCO2, Respiratory Rate
- Supports monitoring patients with high respiration rates, up to 150 rpm
- Supports intubated and non-intubated patients
- Sensitive CO_2 detection, can detect minimum 0.1 vol% CO_2 change
- Low rise-up Time (< 180ms), Response Time below 2s
- High accuracy with microflow sampling at 50ml/min
- Wide range of gas measurement (0 ~ 20%)
- Sensors for Software and Hardware status
- Capnogram data
- Automatic zeroing
- High quality and long pump life
- Microstream sampling line with parts made of PFSA polymer for humidity filtering
- Sampling line presence detection extending pump lifetime
- Simple connectivity with RS232 serial interface on DB9 connector (customizable)
- Automatic barometric pressure, temperature and anaesthetic gases compensation

Specifications

General

Principal of Operation: Non-dispersive Infrared (NDIR) single beam optics, dual wavelength
Mechanical Robustness: Compliant with the requirement-sof ISO 80601-2-55:2011 (Shock and Vibration).
Weight : ≤ 180g (without accessories)
Dimension : 90 x 60 x 31mm
Power Supply : 5V DC ±5%
Typical Power Consumption : ≤ 1.5W
Typical Power Consumption with O2 sensor: ≤ 2.5W
Max. Power Consumption when zeroing: ≤ 3.5W
Interface: RS-232 serial interface operating at 19200bps.

Environment

Operating Temperature : 10°C ~ 40 °C (50°F ~ 104°F)
Storage Temperature : -20°C ~ 70°C (4°F ~ 158°F)
Humity : 15% ~ 95%, non condensing
Pressure : 400 ~ 1200 hPa

Performances

Measurements: EtCO2, InsCO2, RR and real-time CO_2
Automatic Compensation: Atmospheric pressure, temperature and anesthetic gases.
Rise Time: ≤ 180ms
Total System Response Time: ≤ 2s(2m samping line)
Sample Frequency: 25Hz
Measurements:
- CO_2 Range 0 ~ 20 vol%
- CO_2 Resolution 0.1 vol%
- CO_2 Accuracy 0 ~ 12%: ±(0.2vol%+2% of reading)
  12 ~ 20%: ±(0.2vol%+6% of reading)

AwRR Range : 0 ~ 150 rpm
AwRR Resolution : 1rpm
AwRR Accuracy: 0 ~ 70rpm, ±1rpm, otherwise undetermined.
Fixed Microflow Sampling Rate : 50ml/min
Flow Accuracy : ±10ml/min
Sampling Line Length : 2m ±0.1m
Breath Detection: Adaptive threshhold, minimum 1 vol% change in CO_2 concentration.
Accuracy standard : ISO80601-2-55:2011.

Sampling Filter Line

Tiniline PFSA Polymer
2m Sampling Line
Part # SGSS-M