

NICOM®

Non-invasive Cardiac Output Monitoring

In the Cardiology Department

Key Features of the Cheetah NICOM® Monitor

- Totally Non-Invasive Bioreactance® Technology
- Validated against the gold standard Swan-Ganz Pulmonary Artery Catheter
- Once calibrated no further adjustment needed
- Real Time Readings (30sec/1min)
- Quick & Easy Application
- Flexible front or back placement of four sensors
- Compact & Portable



Benefits for your department

Chronic Heart Failure Management

- Enables highly accurate, real time, continuous and robust measurements of CO
- Use to better understand the patient's disease status and response to treatment
- Can assist to differentiate between heart failure and chronic pulmonary disease (COPD)

Pacemaker Optimisation

- In heart failure patients treated with a biventricular pacemaker (CRT), NICOM has been used to determine the optimal pacemaker AV delay and VV delay settings
- The real-time, non-invasive insight enables fine-tuning of the CRT to optimise stroke volume and cardiac output
- The test is simple to perform, and can be completely performed by a nurse or technician, without the need for echocardiography and other ancillary tests

Specifications

General

Product Name Cheetah NICOM®
Technology BIOREACTANCE
Method of Measurement Non invasive continuous cardiac output (CCO)
Dimensions 22cm x 26cm x 20cm
Weight 4.5 Kg
Cable 3.7m, NICOM® Patient cable
Sensors One set of NICOM® sensors

System

Ambient Temperature and Humidity

Operation condition: 10-40°C/50-104°F, 50-75%RH
Atmospheric pressure: 700 hPa to 1060 hPa
Storage condition: 0-50°C/32-122°F, 50-75%RH
Delivery condition: 0-50°C/32-122°F, 50-75%RH
Atmospheric pressure: 700 hPa to 1060 hPa

Standards

IEC/EN 60601-1 (class I Type BF)
IEC/EN 60601-1-2IEC 60068-2
TUV Rheinland of North America
ISO 13485 Standards

Features Summary

Display

8" TFT 640 x 480 pixels

Control

Touch screen, keypad

Connections

NICOM® cable connector
Noninvasive blood pressure (NIBP) connector
1x Serial Port
1x USB A
1x USB B
1x LAN
Power cable inlet connector
Plug connector for potential equalization
SpO2 connector (future use)

Battery

Type Chargeable Ni-MH

Charge Time 6 hrs

Operating Time Approximately 90 min when fully charged

Power

AC Mains 100v-240v ~ 2A ; 50/60 Hz

Skin Voltage Tolerance ±300 mV

Frequency Response 8Hz

Time Constant 0.125 Sec

Filter 75KHz

Rated Voltage/Current Power Switch Supply

100V to 240V

Rated Frequency 50/60 Hz

Fuses 2x T2AL250V

A/D converter at 12 bit (2.5 mV LSB)

Sample rate 500 per sec

Main Features

Hemodynamic Dashboard display

Raw waveform display

Multiple Trends Display

Screen trending display options: 5 min, 20 min, 30 min, 1 hr, 4 hrs, 10 hrs

Tabular display

Protocol Wizards

Passive Leg Raise wizard

BIOREACTANCE Orthostatic wizard

Events Marker

Connectivity to External Electronic Medical

Records(EMR) System via LAN or Serial Port

Data Streaming Rate: 30 sec, 1 min, 3 min, 5 min, 7 min, 10 min

Maximum Baud Rate (Serial): 115200 baud

Minimum Baud Rate (Serial): 9600 baud

LAN Rate: 10/100 bps

Data Format: XML

Manual Data Entries

MAP

SpO2 (non US)

Hgb (non US)

Data updates on screen every 30 sec or 1 min

NIBP Functionality

Suntech Medical Technology

Patient Range Neonate through adult

Method of Measurement Oscillometry with step deflation

Operating Voltage +5.3VDC to +14.5VDC

Sleep Mode Power 1.4mW @ 6V (typical)

Accuracy Meets ANSI/AAMI SP10-1992

Temperature/Humidity

Operating: 0°C to 50°C, <95% RH, non-condensing

Storage: -20°C to 65°C, <95% RH, non-condensing

Pressure Accuracy

The static pressure measurement is within ±3mmHg throughout the temperature range

Measurements

Automatic: 1, 3, 5, 10, 15, 30, 60, 90 min intervals

Manual: Single measurement initiated by user

Measurement Ranges - Pressure

Adult: 20 to 260 mmHg

Pediatric: 20 to 160 mmHg

Neonate: 20 to 130 mmHg

Measurement Ranges - Pulse Rate

30 to 220 BPM (Beats Per Minute)

Inputs/Outputs

System Power

Bi-directional RS232 or TTL serial communication-

Safety

Independent safety microprocessor monitors cuff pressure, measurement time, as well as the operation of the main microprocessor

Standards

Meets AAMI SP10-1992, EN60601-1, EN60601-2-30, EN1060-1, EN1060-3 standards

Specialized Clinical Applications

Suntech customized NIBP module for Dialysis

NICOM Electronic Medical Records (EMR)

PDF reports

Excel reports

Data export to XML

Password protection

Hemodynamic status PC display with visit-to-visit date

Data Storage Capacity

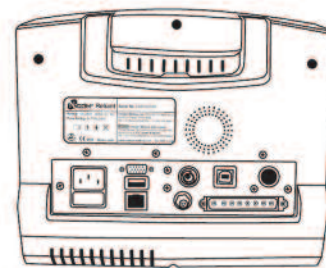
11520 readings

1 min update rate - 192 hrs

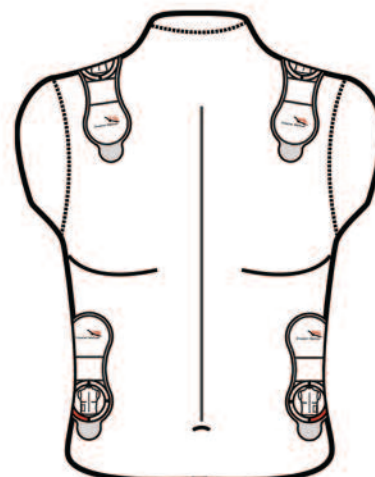
30 sec update rate - 96hrs



Front View



Reverse View



Sensor Placement