

# NBM 200

## Non-invasive Measurement of Hemoglobin

*The Future of Hemoglobin Measurement!*



The OrSense NBM 200 is a non-invasive device for the analysis of Hemoglobin (Hb), Pulse Rate and SpO2 values. It consists of a portable desktop monitor and a reusable ring shaped sensor that is placed on the patient's finger. Measurements take less than 60 seconds and require no blood sample, disposables or hazardous waste exposure. The NBM 200 may be used in hospitals, clinics and mobile environments for measuring hemoglobin and monitoring patient status.

The NBM 200 represents a breakthrough in non-invasive blood analysis; greatly improving patient comfort and safety while reducing needle stick and blood related risks; providing accurate and immediate results.

### **NBM 200 Benefits:**

- Immediate & Reliable Measurements
- Easy & Safe to Use
- Increased Patient Comfort
- Environmentally Friendly
  - No Disposables
  - No biohazardous waste



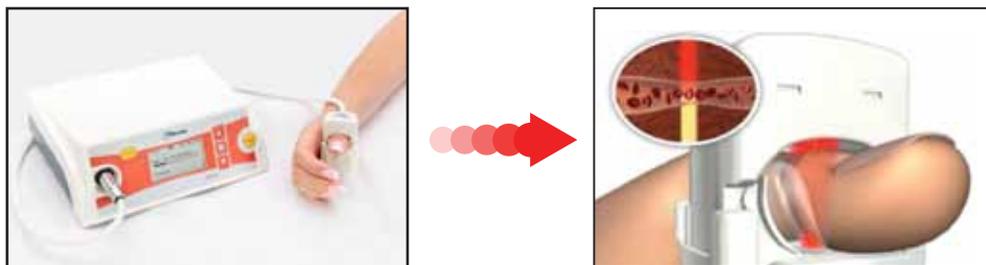
PAINLESS, RELIABLE HEMOGLOBIN MEASUREMENTS

[www.orsense.com](http://www.orsense.com)

# OrSense's proprietary technology

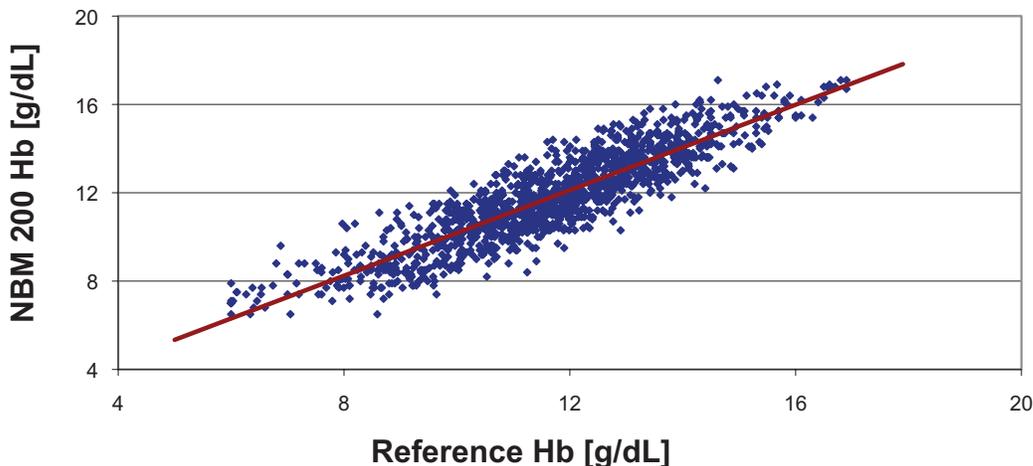
A breakthrough solution for the measurement of Hemoglobin (HB)

The NBM 200 pneumatic finger sensor cuff combines a sensitive optical measurement with temporary blood-flow occlusion. The occluded blood generates a unique and strong optical signal, enabling highly sensitive measurement results.



- **Strong optical signal**
- **No interference from fingernail polish**
- **Highly sensitive measurements**

## NBM 200 Hemoglobin measurements compared with reference measurements (Coulter LH750)



**Data (n=1304), precision 0.96g/dL, correlation 0.89**

## NBM 200 Features & Specifications

### Performance:

#### Hemoglobin (Hb)

Hb measurement range: 7-17 g/dL

Precision: 1 g/dL (1 SD)

Resolution: 0.1 g/dL

#### Pulse Rate (PR)

Range: 30-240 bPm

Accuracy: 3 bPm

#### SpO<sub>2</sub>

Range: 1-100%

Accuracy: 3% for 70-100%

Below 70% unspecified

### Mode of Operation

Spot checking (optional periodic)

### Data Management

Data logger with real time and date

The measured Hb values are automatically stored

### Electrical

Consumption (typical): 12 watts Input

voltage range: 100-240 VAC, 50-60 Hz, 40 VA max.

### Type of Protection

Class 1 (on AC Power) Type BF

applied part

### Environmental

Operating temperature: 0-40°C (32-105°F)

Storage: -20 - 70°C (-4 - 140°F)

Humidity: 5%-95% non-condensing

Operating Altitude: 1000 ft. to 18,000 ft.

### Protection

IP42 against drip and foreign bodies

### Compliance With

Standards:

IEC/EN 60601-1, CSA 601.1, IEC/EN 62304, MDD 93/42/EEC

EMC compliance:

IEC/EN 60601-1-2, Class B

### Sensor Emitted Light

LED wavelength range: 600-940 nm.

Average radiated power:  $\leq 1$  mw

### Calibration

Factory Calibrated over the range

### Physical Characteristics

Dimensions:

7.5 cm H x 22.5 cm W x 18 cm D

(3" x 10" x 9" x 7.1")

Weight: 1 kg (2.2 lb)

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**www.orsense.com**

Caution: Federal law restricts this device to sale by or on the order of a physician.

See Operators Manual for Cautions and Warnings, Indications, Usage instructions, Accuracy Specifications, Contraindications and troubleshooting instructions.