



# NON-INVASIVE HEMATOCRIT

*Clinical Accuracy Without Sharps and Sticks  
No More Blood Draws to Determine Hematocrit!*



- Transdermal, no blood sample required
- Instantaneous data, no labs
- Simple to use, easy to read
- No risk to clinician or patient
- Portable, no set-up/installation required

CritScan represents a major breakthrough in blood diagnostic technology in a non-invasive, clinically accurate and easy to use instrument.

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# TECHNICAL SUMMARY

The CritScan system is comprised of a battery operated, LCD display-equipped Base unit and a cable-connected handheld Sensor, which employs a detachable, semi-durable sensor Cartridge. CritScan's proprietary photo-optical



array is the heart of its Hematocrit and oxygen saturation measurement system and is embedded in the flexible cuff membrane of the removable Cartridge. Sensor optical and pneumatic components and controls are mounted in the handle of the handheld unit. Power management, data processing, and display functions are controlled by the base unit's microcomputer.

Measurements are made by resting a fingertip against the illuminated sensor

array while the pneumatic cuff gently encloses and supports the finger in the center of the cartridge chamber. Within 30 seconds of procedure initiation, the optical-cuff noninvasively assesses the hemodynamics of the finger by integrating

specific pneumatic and light ray data. CritScan then processes this information to determine the absolute hematocrit and O<sub>2</sub> Sat values of the patient as accurately as the best portable, single sample, invasive hematocrit or hemoglobin systems. CritScan's proprietary and unique "spectrophotometric" technology is accurate even in circumstances of low peripheral perfusion and is well protected by US and foreign patents.

## PRODUCT SPECIFICATIONS

### Physical Dimensions (mm)

- Base: 180W x 50H x 170D
- Handheld: 50W x 150H x 62D
- Handheld Sensor: 55 Dia x 50D
- Weight: <2 kg
- LCD Screen: 60W x 25H
- Finger Size: 12-22 Dia
- Finger Nail Length: No limitation

### Performance

- Hct Accuracy:  $\pm 1.5$  Hct% @ 1 SD
- Hct Repeatability: <10% COV
- O<sub>2</sub> Accuracy:  $\pm 2.0$  Sat% @ 1 SD

### Power

- Portable, battery op.
- DC: User replaceable D cells (2)
- DC duration: 50 tests/8 hours
- AC: Wall transformer 120/220 VAC

### Sensor Disposable

- Continuous LCD display: "# tests remaining"

### Operation

- Selectable Hct vs. Go, No-Go donor screening output
- Pre-test, Self Calibration
- Test Cycle: <1 min.
- Selectable Hct Limit for screening purposes with directional bias determined by user

### Environmental

- Temp. Range: 15 - 40°C
- Storage Temp. -20 - 60°C
- Operating Altitude: 0 - 2500 Meters
- Indoor - Office use only

### Data I/O

- RJ45/11 serial Port (POL models only)
- IR-PCD Interface Sync capability (Pos + neg)

Contact us for more information



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