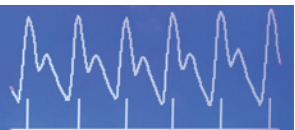


# TOSCA 500

Radiometer transcutaneous  $p\text{CO}_2$  and Masimo SET®  $\text{SpO}_2$  to monitor ventilation and oxygenation through a single sensor



- Non-invasive  $\text{tcpCO}_2$  and  $\text{SpO}_2$  monitoring
- QUICKSTART for rapid  $p\text{CO}_2$  stabilization
- Accurate  $\text{SpO}_2$  monitoring during motion and low perfusion
- Real-time trending facility
- Capability to download patient data
- Easy and convenient use

# TOSCA 500 Monitor

## Display

- 3-digit LED displays for  $p\text{CO}_2$ ,  $\text{SpO}_2$  and pulse rate
- A 10-segment LED bar graph for plethysmogram
- A graphic LCD (128 x 64 dots with LED back-light and adjustable contrast) for selectable parameter visualization mode, messages and alarms
- User-selectable display mode for status, trend, plethysmogram and heating power

## Measurement range

- $p\text{CO}_2$ : 0-200 mmHg (0-25.0 kPa)
- $\text{SpO}_2$ : 0-100 %
- Pulse rate: 25-240 bpm
- Perfusion Index: 0.02-9.99 % and 10.0-20.0 %
- Heating power: 0-999 mW

## Calibration

- Fully automatic calibration
- Typical calibration time in routine use: 2 min
- Integrated calibration chamber with one gas calibrator

## Site timer

- Clock triggers an alarm when the selected measuring time has elapsed
- Indication of remaining site time

## Alarms

- Adjustable low and high limits for  $p\text{CO}_2$ ,  $\text{SpO}_2$  and pulse rate
- Audio and visual alarm indication

## Fault

- Triggered in case of temperature circuit or monitor failure

## Safety

- Instrument Class 1, type BF, defibrillator proof
- Fulfills the requirements of MDD 93/42
- Extensive self-testing program

## External connections

- 1 x 37-way connector with analog output, RS 423 communication and nurse call
- 1 x 25-way connector with Centronics parallel interface
- Equipotential ground

## Patient data memory

- Automatic storage of measured patient data over the last 72 hours
- Reviewing trends on screen
- Download of patient data to PCs

## Power

- 200-240V, 100-120V, 50-60Hz,
- External battery 12-24V
- 20VA max. consumption

## Internal battery

- Lead acid cell, 12V/1.8Ah, rechargeable
- Typical operating time: 1 hour

## Physical specifications

- Monitor: HWD 135 x 266 x 300 mm
- Weight: 5.3 kg including gas cylinder

# TOSCA Sensor 92

## Principle of measurement

- Stow-Severinghaus-type  $p\text{CO}_2$  combined with Masimo SET®  $\text{SpO}_2$  pulse oximetry

## Sensor remembraning requirements

- Two weeks with normal use

## Sensor temperature

- Recommended: 42 °C
- Selectable between 37 °C and 45 °C, in steps of 0.5 °C
- Reliable, safe control by two independent circuits
- Accuracy:  $\pm 0.2$  °C

## Application time

- Up to 12 hours at 42 °C sensor temperature

## Sensor memory

- Built-in sensor for calibration values, preparation time and other data

## Physical specifications

- Cable: 3 m, shielded, highly flexible, polyurethane coated and latex free
- Dimensions of the sensor head: 15 mm diameter, 8 mm high

## Performance

- $p\text{CO}_2$ 
  - Response time (in vitro):  $\leq 50$  sec
  - Drift (in vitro):  $\leq 0.5$  %/h
  - Resolution: 1 mmHg

## $\text{SpO}_2$

- Accuracy (70-100 %):  $\pm 3$  digits
- Resolution: 1 %

## Pulse rate

- Accuracy:  $\pm 3$  bpm
- Resolution: 1 bpm

## $\text{SpO}_2$ and pulse rate

- Signal averaging: 2, 4, 8, 10, 12, 14 and 16 sec, including FastSat

## Heating power

- Range: 0-1000 mW
- Resolution: 1 mW

# TOSCA 500 Accessories

560 1100	TOSCA Sensor Preparation Supplies
560 1300	TOSCA Sensor Attachment Clips
064 0210	CAL-Gas
500 0200	Download 2001 for TOSCA (data analysis software)
500 0101	TOSCA-PC Interface cable



For more information about Radiometer, go to [www.radiometer.com](http://www.radiometer.com).



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