

### O.R. monitor provides superior flexibility and performance — Now with Masimo SET® Pulse Oximetry!

**NIBP, 3/5 Lead ECG, Dual Temperature, Respiration, SpO2, Invasive Blood Pressure, and Capnography**

Also available with Invasive Blood Pressures, CO2 (Mainstream or Sidestream) and Drager Built-in Anesthetic Agent Module

The DRE Waveline Pro can be used on small, medium, or large animals. An applicable monitor for veterinary surgical suites and research facilities.

The DRE Waveline Pro displays as many as eight colorful waveforms on a crisp 15" high resolution display. It is lightweight, portable and measures multiple parameters and comes with standard veterinary accessories.

#### Features:

- High resolution 15 inch touch-screen display
- 8-waveform display with large waveforms and digits
- Simultaneous multi-lead ECG monitoring
- Auto setting of alarm limits
- Color-coded alarms
- Graphical and tabular trends (72 hours)
- Patient data entry
- Battery backup (2 removable batteries)
- Networking capability (wireless and non-wireless)
- Standby button
- Color of the waveforms can be changed
- **New for 2015!** Masimo SET® Pulse Oximetry



# DRE Waveline Pro

# Multi-Function Patient Monitor

## Physical Dimensions & Weight

Base Unit: 12.1"/309 mm (H) x 14.4"/365 mm (W) x 6.3"/159 mm (D)  
Weight: 17.6 lbs/8.0 kgs (including anesthetic agents module and batteries)

## Application

Neonatal, pediatric and adult patients

## Performance Specifications

Display: 15" color TFT, Resolution 1024 x 768  
Trace: 8 waveforms  
Indicator: Alarm indicator  
Power indicator  
QRS beep and alarm sound

## ECG

Input: 5-lead ECG cable and standard AAMI line for connection  
Lead Choice: I, II, III, aVR, aVF, aVL, V, V1-V6, TEST  
Gain Choice: x0.5, x1, x2, x4  
Frequency Characteristic: 0.05 ~ 35 HZ (+3dB)  
ECG Waveforms: 7 channels  
Penetration Voltage: 4000VAC 50/60Hz  
Sweep Speed: 12.5, 25, 50 and 100 mm/sec (left to right or right to left)  
30 ~ 300bpm  
HR Display Range: 30 ~ 300bpm  
Accuracy:  $\pm 1$  bpm or  $\pm 1\%$ , whichever is greater  
Alarm Limit Range Setting: Upper limit 100 ~ 200 bpm; Lower limit 30 ~ 100 bpm

## RESP

Measure Method: RA-LL impedance  
Range: 0 ~ 120 rpm  
Accuracy:  $\pm 3$  rpm  
Alarm Limit Setting: Upper limit 6 ~ 120 rpm; Lower limit 3 ~ 120 rpm  
Sweep Speed: 12.5, 25, 50 and 100 mm/sec (left to right or right to left)

## SpO<sub>2</sub>

ASpO<sub>2</sub>: Anti-motion SpO<sub>2</sub>  
SpO<sub>2</sub>% Range: 0 ~ 100%  
SpO<sub>2</sub> Accuracy:  $\pm 2\%$  (70 ~ 100%, non-motion)  $\pm 3\%$  (70 ~ 100%, motion)  
Pulse Rate Range: 30 ~ 250 bpm  
Pulse Rate Accuracy:  $\pm 2$  bpm (non-motion)  $\pm 3$  bpm (motion)  
Alarm Limit Setting: Upper limit 70 ~ 100%, lower limit 70 ~ 100%  
SpO<sub>2</sub> Probe: Red light LED wavelength; 660nm $\pm$ 5nm  
Infrared light LED wavelength; 940nm $\pm$ 10nm

## NIBP

Measuring Technology: Automatic oscillating measurement  
Cuff Inflating: <30s (0 ~ 300 mmHg, standard adult cuff)  
Measuring Period: AVE<40s  
Mode: Manual, Auto  
Measuring Interval in AUTO Mode: 2 min ~ 4 hrs  
Pulse Rate Range: 30 ~ 250 (bpm)  
Measuring Range: DIA : 15 ~ 200 (mmHg)  
Adult/Pediatric Mode  
SYS: 40 ~ 250 (mmHg)  
Neonatal Mode  
SYS: 40 ~ 135 (mmHg)  
Resolution: 1mmHg  
Accuracy:  $\pm 5$ mmHg  
Maximum Mean error:  $\pm 5$ mmHg  
Maximum Standard Deviation: 8mmHg  
Overpressure Protection: Adult Mode: 300(mmHg)  
Neonatal Mode: 160 (mmHg)  
Alarm Limit Setting: SYS: 50 ~ 240 mmHg DIA: 15 ~ 180 mmHg

## TEMP

Range: 25° ~ 50° (C)  
Accuracy:  $\pm 0.2^\circ$  C (25.0° ~ 34.9° C)  
 $\pm 0.1^\circ$  C (35.0° ~ 39.9° C)  
 $\pm 0.2^\circ$  C (40.0° ~ 44.9° C)  
 $\pm 0.3^\circ$  C (45.0° ~ 50.0° C)  
0.1° C  
Display Resolution: 0.1° C  
Alarm Limit Setting: Upper limit 0° ~ 50° C, lower limit 0° ~ 50° C  
Channel: 2 channels

## IBP

Measurement Range: -50 ~ 300mmHg  
Channel: 2 channels  
Pressure Transducer: Sensitivity, 5 $\mu$ V/V/mmHg  
Impedance Range: 300 ~ 3000 $\Omega$   
Transducer Sites: ART, PA,CVP, RAP, LAP, ICP  
Unit: mmHg/kPa selectable  
Resolution: 1 mmHg  
Accuracy:  $\pm 1$  mmHg or  $\pm 2\%$ , whichever is greater  
Alarm Range: -10 ~ 300 mmHg

## EtCO<sub>2</sub> (Dräger)

CO<sub>2</sub> Measurement Range: 0 ~ 99 mmHg  
Accuracy:  $\pm 2$  mmHg (0 ~ 38 mmHg)  
39-99 mmHg  $\pm 5\%$  of reading + 0.08% for every 1 mmHg (above 38 mmHg)  
Sampling Rate: 50 ml/min  
Initialization Time: 30 seconds (typical), reaches  $\pm 5\%$  steady-state accuracy within 3 minutes  
Respiration Rate: 0 ~ 150 breaths/min  
Mode: Adult, neonate

## Anesthetic Agents

Method: Infrared absorption  
Gas Sorts: Halothane, Isoflurane, Enflurane, Sevoflurane, Desflurane, CO<sub>2</sub>, N<sub>2</sub>O (optional Automatic Agent ID)  
Measurement Range:  
Halothane, Isoflurane: 0 ~ 8.5%  
Enflurane, Sevoflurane: 0 ~ 10%  
Desflurane: 0 ~ 20%  
CO<sub>2</sub>: 0 ~ 10%  
N<sub>2</sub>O: 0 ~ 100%  
O<sub>2</sub>: 0 ~ 100%  
Bias: Halothane, Isoflurane, Enflurane, Sevoflurane, Desflurane:  $\pm(0.15 \text{ Vol}\% + 15\% \text{ rel.})$   
CO<sub>2</sub>:  $\pm(0.5 \text{ Vol}\% + 12\% \text{ rel.})$   
N<sub>2</sub>O:  $\pm(2 \text{ Vol}\% + 8\% \text{ rel.})$   
O<sub>2</sub>:  $\pm 3 \text{ Vol}\%$

## Networking

Industry standard 802.11b/g wireless network

## Power

Source: External AC power or internal battery  
AC Power: 100 ~ 240VAC, 50/60Hz, 150VA  
Battery: Built-in & rechargeable lithium ion  
Charge Time: 3+ hours

## Environmental Specifications

Temperature: Operating: 5° ~ 40° C  
Storage: -20° ~ 65° C  
Humidity range: Operating:  $\leq 80\%$   
Storage:  $\leq 80\%$

Also available: Automatic Agent I.D. Consult your sales representative for specifications.

Specifications subject to change without notice.