

# Datascope Trio™

## Summary of Features and Benefits

- 8.4" colour TFT display with a resolution of 800 x 600 provides optimal visualisation of patient data
- Standard features include up to 4 waveforms, 3 or 5-lead ECG, Respiration, NIBP, SpO<sub>2</sub> and Temperature
- Many options available including Masimo SET® motion tolerant SpO<sub>2</sub>, Nellcor® OxiMax® SpO<sub>2</sub>, invasive blood pressure, Lithium Ion battery and a dual trace recorder
- Full graphic and list trends of all monitored parameters
- Ergonomically designed fold-away handle with built-in bed rail hook provides maximum flexibility and easy handling
- Built-in Power Supply for direct AC connection allows for convenient transport from one location to the next
- Navigator Control Knob and quick action keys make for easy-to-use functions
- Serial Output for connectivity to other devices



Masimo SET

**The Trio is a portable, configured monitor** designed for use in many hospital departments and outpatient areas – from traditional bedside monitoring to intra-hospital transport. Its high-resolution colour display far exceeds the standard in compact patient monitors. The Trio, with a rechargeable battery, allows you to continuously monitor vital signs while transporting the patient.

**mindray**

**ECG**

Input:	5-lead or 3-lead selectable
Leads:	I, II, III, aVR, aVL, aVF, V
Gain:	x0.25; x0.5; x1; x2
Sweep Speed:	12.5 mm/s, 25 mm/s, 50 mm/s
Frequency Response to Screen	
Extended Mode:	0.05–100 Hz, -3 dB max
Monitor Mode:	0.5–40 Hz, -3 dB max
Surgical Mode:	1–20 Hz, -3 dB max
CMRR	
Extended Mode:	>90 dB min
Monitor Mode:	>105 dB min
Surgical Mode	>105 dB min
Analog Output (ECG):	
Delay:	25 ms
Sensitivity:	1 V/mV of input, ± 10%
Defibrillator Overload Protection:	Withstand 360 Joule discharge
Recover Time:	Time for recovery to within 1mV < 8 seconds automatically, 3 seconds from 1 Vpp at 60 Hz

**Heart Rate Meter**

Range:	15-300 BPM Adult, 15-350 BPM Paediatric/Neonate
Accuracy:	±1 BPM or ±1% whichever is greater
Pacer Rejection:	Rejects all pulses of amplitude ±2.0 mV to ±700 mV and duration 0.1 ms to 2 ms with no tail Rejects all pulses of amplitude ±2.0 mV to ±700 mV and duration 0.1 ms to 2 ms with 100 ms time constant tail of less than 2.0 mV, or 4 ms time constant tail of less than 2.0 mV
Tall T-Wave Rejection:	Rejects all T-Waves less than 120% of a 1 mV, 100 ms QRS, and a T-Wave duration of 180 ms and a Q-T interval of 350 ms

**Display**

Size:	8.4 inch (21.3 cm) Colour TFT
Resolution:	VGA 800 x 600
Waveforms:	3 or 4
Sweep Speed:	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s

**IBP**

Range:	Sys/Dia/Mean -50 to +300 mmHg
Accuracy:	± 1 mmHg or ± 2% whichever is greater
Default Scale:	ART: 0–150 mmHg, PA: 0–100 mmHg, CVP: 0–40 mmHg, RAP: 0–40 mmHg, LAP: 0–40 mmHg, ICP: 0–40 mmHg
Zero Range:	± 200 mmHg
Excitation:	5 Volts DC, ± 2%
Frequency Response:	DC to 16 Hz ± 1 Hz, -3 db
Pressure Labels:	ART, PA, CVP, RAP, LAP, ICP
Analog Output: (IBP)	
Delay:	20 ms, without sensor, measured using a simulator as the input
Sensitivity:	1 V/100 mmHg, ± 10%

**Non-Invasive BP**

Technique:	Oscillometric
Measurement Intervals:	CONT, 1 min, 2 min, 3 min, 4 min, 5 min, 10 min, 15 min, 30 min, 1 hr, 2 hrs, 4 hrs, OFF
Systolic Range:	Adult: 40-255 mmHg Paediatric: 40-200 mmHg Neonate: 40-135 mmHg
Diastolic Range:	Adult: 10-210 mmHg Paediatric: 10-150 mmHg Neonate: 10-95 mmHg
Systolic Accuracy:	Mean Error less than ±5 mmHg, Standard Deviation less than ±8 mmHg
Diastolic Accuracy:	Mean Error less than ±5 mmHg, Standard Deviation less than ±8 mmHg
Connector Type:	Rectus

**Temperature**

Scale:	Selectable °C or °F
Range:	0–50 °C / 32–122 °F
Accuracy:	± 0.1 °C (0–50 °C) exclusive of probe errors ± 0.2 °F (32–122 °F) exclusive of probe errors

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**Respiration (ECG)**

Method:	RA-LL impedance
Range:	Adult: 6–120 BPM, Paediatric/Neonate: 6–150 BPM
Accuracy:	± 2% or ± 2 breaths per minute, whichever is greater
Lead	II
Apnea Alarm	Yes
Apnea Delay:	10–40 seconds

**Recorder**

Speed:	25 and 50 mm/sec
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**Pulse Oximetry**

Masimo SET™ SpO <sub>2</sub> Saturation Accuracy with no motion conditions	
Adult/Paediatric:	70% to 100% ±2 digits SpO <sub>2</sub>
Neonate:	70% to 100% ±3 digits SpO <sub>2</sub>
Masimo SET™ SpO <sub>2</sub> Saturation Accuracy during motion conditions	
Adult/Paediatric/Neonate:	70% to 100% ±3 digits SpO <sub>2</sub>
Response Time:	20 seconds to 95% of final step of % SpO <sub>2</sub> value from 60–95% at 75 BPM. Averaging set at 8 seconds.
Nellcor™ OxiMax™ SpO <sub>2</sub> Saturation Accuracy	
Adult/Paediatric/Neonate:	70% to 100% ±2 digits SpO <sub>2</sub>
Note:	Adult sensor MAX-A/MAX A-L, Paediatric sensor MAX-P, Infant sensor MAX-I, Neonate sensor MAX-N, MAX-FAST
Adult/Paediatric/Neonate:	70% to 100% ±3 digits SpO <sub>2</sub>
Note:	Adult sensor DS-100A, Adult/Neonate sensor OXI-A/N, Paediatric/Infant sensor OXI-P/I

Basic SpO <sub>2</sub> Saturation Accuracy	
Adult/Paediatric/Neonate:	±2 % from 70 to 100%
Pulse Rate Range Masimo with no motion conditions	
Adult/Paediatric/Neonate:	30–240 BPM ±3 BPM
Pulse Rate Range Masimo during motion conditions	
Adult/Paediatric/Neonate:	30–240 BPM ±5 BPM
Pulse Rate Range Nellcor	
Adult/Paediatric/Neonate:	20–250 BPM ±3 BPM
Pulse Rate Range Basic	
Adult/Paediatric/Neonate:	25–254 BPM ±1 BPM

**Electrical Rating**

AC Voltage:	AC100 – 240V, 50/60 Hz
Battery Type:	Lithium Ion
Number of Batteries:	1
Battery Voltage:	11.1 Vdc
Battery Capacity:	4.4 A-Hr
Battery Run Time:	3.25 hours from one fully charged new battery at 25 °C with ECG, SpO <sub>2</sub> , and NIBP every 15 minutes
Battery Recharge Time:	6.5 hours max

**Environmental Conditions**

Storage Temperature:	-20 to 60 °C/ -4 to 140 °F
Storage Humidity:	10–95% non-condensing
Operating Altitude:	-1000 to 9889 ft ASL, 1050 hPa to 700 hPa, 788 mmHg to 525 mmHg
Operating Temperature:	5 °C to 40 °C/ 41 °F to 104 °F
Operating Humidity:	15–95% non-condensing

PHYSICAL DIMENSIONS	
Monitor Size:	241 mm W x 228 mm H x 174 mm D 9.49" W x 8.98" H x 6.85" D
Monitor Weight:	4 kg (8.8 lbs) excluding battery & optional accessories 4.33 kg (9.52 lbs) including 1 lithium ion battery excluding optional accessories

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