Infinity® M300 Patient-worn Monitor

Infinity® M300 provides the performance of a full-size patient monitor, packaged in a patient-worn telemetry device for adult and pediatric patients. Built-in ACE® (Arrhythmia Classification Expert) and pacer detection algorithms enhance ECG processing and help to reduce false alarms.

Infinity M300 provides continuous standalone monitoring – even if the patient inadvertently moves out of the network coverage area. Two-way communication between Infinity M300 and the Infinity CentralStation facilitates wireless data exchange and signal integrity. Working together, the Infinity CentralStation and Infinity M300 enhance patient care management by providing fast data access, rapid assessment, decision support and clinical reporting.

FEATURES

- 3- to 6-wire ECG monitoring with TruST™ 12-lead
- Vital information access in color
- Alarms alerts and controls to support the telemetry workflow
- SpO_2 – ready in every device
- True battery management solution
- Wireless networking using commercial WiFi components

Infinity M300
Patient-worn telemetry device

TECHNICAL DATA

SUPPORTED PARAMETERS

ECG	
Available leads	3-wire: I, II, III
Adult/Pediatric	5-wire: I, II, III, aVR, aVL, aVF, V 6-wire: I, II, II, aVR, aVL, aVF, V, V+ 6-wire with Infinity TruST 12-lead: I, II, II, aVR, aVL, aVF, dV1, V2, dV2, dV3, dV4, V5, dV6
Leads analyzed	Any two user-selected ECG leads (simultaneously), or any one user-selected ECG lead
Detected events/rhythms	Asystole, Ventricular Fibrillation, Ventricular Tachycardia, Bradycardia, Ventricular Run, Accelerated Idioventricular Rhythm, Supraventricular Tachycardia, Ventricular Couplet, Ventricular Bigeminy, Tachycardia, Pause, Artifact, PVC/min
HR level alarm adjustment range	20 to 300 bpm
Measurement range	15 to 300 bpm
Accuracy	± 2 bpm or ± 1%, whichever is greater
Degree of protection against electrical shock	Type CF

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CONTINUING TECHNICAL DATA

Defibrillation protection	In accordance per IEC 60601-2-27
Bandwidth or resolution	Filter Monitoring: 0.5 – 40 Hz
Sweep speed	25 mm/sec ± 10%
QRS detection	Amplitude: 0.5 – 5.0 mV Duration: 40 – 120 ms
Electrosurgery and cautery	Not intended for use during ESU

Pacemaker

Detection leads	I and (II or III)
Detection amplitude	± 2 to ± 900 mV
Detection width	0.1 to 2.0 ms
Precautions	Contains a tiny magnet which generates an extremely low static magnetic field of approximately 2 gauss at 12.7 mm (0.5 in) distance. Please refer to the manufacturer's Instructions for Use of any third party medical devices in the patient vicinity for compatibility.

ST Segment Analysis

Leads analyzed	3-wire: I, II, or III 5-wire: I, II, III, aVR, aVL, aVF, V 6-wire: I, II, III, aVR, aVL, aVF, V, V+ 6-wire with Infinity TruST 12-lead: I, II, III, aVR, aVL, aVF, dV1, V2, dV2, dV3, dV4, V5, dV6
ISO point	Default: - 28 msec
ST measurement point	Default: +80 msec
ST complex	Length: 900 msec (250 samples) Frequency response: 0.05 to 40 Hz
Update interval	15 seconds
ST level alarm adjustment range	-15.0 to 15.0 mm, -1.5 to 1.5 mV
ST accuracy	± 0.1 mm (± 0.01 mV)
ST measurement range	-15.0 to 15.0 mm, -1.5 to 1.5 mV
ST resolution	0.1 mm, 0.01 mV

Pulse Oximetry (optional)

Parameter display	Percentage of functional (oxygen-saturated) hemoglobin (%SpO_2); pulse rate
Measuring method	Absorption-spectrophotometry
Measurement and display range	SpO_2: 1 – 100% Pulse rate: 30 – 250 bpm
Calibration range	70 – 100%
Display update period	2 seconds nominal
Maximum hold from previous update	30 seconds (in the event of artifact or other error)
SpO_2 Alarm Adjustment Range	20 to 100%
Pulse Rate Alarm Adjustment Range	30 to 240 bpm

SpO_2 accuracy [1, 2, 3, 4]	
	0 to 69% not specified 70 to 100% sensor-specific as follows: **Masimo® LNOP® Sensors** LNOP adt, LNOP Pdt, LNOP neo, LNOP DCI, LNOP TC-I, LNOP DCIP, LNOP YI: ± 3% Pulse Rate Accuracy: ± 3 bpm or ± 3% (whichever is greater) Low Perfusion Accuracy, SpO_2: ± 2% Low Perfusion Accuracy, Pulse Rate: ± 3 bpm or ± 3% (whichever is greater) **Masimo® LNCS® Sensors** LNCS DCI®, LNCS DCIP, LNCS Adtx, LNCS Pdtx, LNCS Inf: ± 2% Pulse Rate Accuracy: ± 3 bpm or ± 3% (whichever is greater) Low Perfusion Accuracy, SpO_2: ± 2% Low Perfusion Accuracy, Pulse Rate: ± 3 bpm or ± 3% (whichever is greater) **Nellcor® Sensors** OxiMAX® MAX-A, OxiMAX MAX-AL, OxiMAX MAX-P, DS100A: ± 3% **Dräger Sensors** MS16444 Disposable Foam Pedi, MS16445 Disposable Foam Adt, MS16449 Disposable Vinyl Adt, MS16448 Disposable Vinyl Pedi, MS13235 Reusable Sensor: ± 2%

Notes:

[1] Since pulse oximeter measurements are statistically distributed, only about two-thirds of those measurements can be expected to fall within ± 1 Arms of the value measured by a co-oximeter.

[2] These accuracies have been validated using blood samples obtained from healthy adult volunteers during induced hypoxia studies in the range of 70-100% SpO_2 against a laboratory co-oximeter and ECG monitor.

[3] SpO_2 accuracies are expressed as ± "X" digits between indicated saturation levels. Accuracy of the SpO_2 measurement is specified within 1 Arms of the value measured by a co-oximeter.

[4] The pulse rate accuracy has been validated on healthy adult volunteers during induced hypoxia studies in the range of 70-100% SpO_2 against a laboratory co-oximeter and ECG monitor. This variation equals ± 1 Arms of the pulse rate value measured by the ECG monitor.

User Interface

Controls	6 function keys: alarm pause, view screen, staff alert, record/mark event, up/down scroll
Alarms	Audible & visible alarm indication (user controlled) 3 severity levels: Life threatening, Serious, Advisory

Display

Size/viewing area	5.08 x 5.08 cm (2 x 2 in) diagonal LCD
Resolution	220 x 176 pixels

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Communications	
Network	IEEE 802.11b/g
Wireless encryption	WEP, WPA2 - Personal Mode
Radio power output	30 mW maximum

Physical Specifications	
Size (H x W x D)	142.2 x 76.2 x 30.5 mm (5.6 x 3 x 1.2 in)
Weight	276.4 g (9.75 oz) with battery
Cooling	Convection
Connections	ECG, Communication port for SpO_2 or Programming Cable, Bedside Charger, Central Charger

Electrical Specifications	
Power source	Rechargeable 3.75 V lithium ion battery, available from Dräger
Battery operating time	ECG only: 17 to 19 hours ECG + continuous SpO_2: 14 to 16 hours Operation time varies according to use of display, alarm alerts, and wireless environment (roaming)
Battery recharging time	Using Bedside Charger to 100%, approximately: 0 to 25% = 2 hours 0 to 50% = 4 hours 0 to 75% = 6 hours 0 to 100% = 8 hours Using Central Charger to 100%, approximately: 0 to 25% = 40 minutes 0 to 50% = 1.5 hours 0 to 75% = 2 hours 0 to 100% = 3 hours

Environmental Requirements

Temperature	
Operating	0° C to 40° C (32° F to 104° F)
Storage	-20° C to 60° C (- 4° F to 140° F)

Humidity (non condensing)	
Operating	10% to 85%
Storage	10% to 85%

Atmospheric pressure	
Operating	64.7 to 106 kPa
Storage	50 to 106 kPa
Free fall	IEC 60068-2-32, Procedure 1 Height of fall: 1 m Number of falls: 1 on each of six surfaces
Protection against water ingress	IPX7, temporary immersion

Standards	
Compliances	IEC 60601-1:1988 + A1:1991 + A2:1995, IEC 60601-1-2:2001, IEC 60601-2-27:2006, IEC 60601-2-49:2001, ANSI/AAMI EC13:2002(R)2007.

MT-1135-2007

Central Charger

MT-1146-2007

Bedside Charger

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CONTINUING TECHNICAL DATA

INFINITY M300 CENTRAL CHARGER

Physical Specification	
Size (H x W x D)	520.7 x 215.9 x 190.5 mm (20.5 x 8.5 x 7.5 in)
Weight	6.5 kg (14.4 lb)
Cooling	Convection
Connections	Up to ten (10) Infinity M300 devices

Electrical Specifications	
Input voltage	92 – 264 VAC
Input frequency (Hz)	50/60 Hz
Protection class	Class 1
Mode of operation	Continuous

Environmental Requirements	
Temperature	
Operating	10° C to 45° C (50° F to 113° F)
Storage	- 40° C to 70° C (- 40° F to 158° F)
Humidity (non condensing)	
Operating	10% to 95%
Storage	10% to 95%
Atmospheric pressure	
Operating	70 kPa to 106 kPa
Storage	50 kPa to 106 kPa
Protection against water ingress	IPX1, dripping water
Standards	
Compliances	IEC 60601-1, IEC 60601-1-2

INFINITY M300 BEDSIDE CHARGER

Physical Specifications	
Size (H x W x D)	45.72 x 162.56 x 99.06 mm (1.8 x 6.4 x 3.9 in)
Weight	224 g (7.9 oz)
Cooling	Convection
Connections	One (1) Infinity M300

Electrical Specifications	
Input voltage	92 – 264 VAC
Input frequency (Hz)	50/60 Hz ± 5%
Protection class	Class 2
Mode of operation	Continuous

Environmental Requirements	
Temperature	
Operating	0° C to 40° C (32° F to 104° F)
Storage	- 20° C to 60° C (- 4° F to 140° F)
Humidity (non condensing)	
Operating	10% to 85%
Storage	10% to 85%
Atmospheric pressure	
Operating	64.7 kPa to 106 kPa
Storage	50 kPa to 106 kPa
Protection against water ingress	IPX4, splashing water
Free fall	IEC 60068-2-32, Procedure 1
Standards	
Compliances	IEC 60601-1, IEC 60601-1-2

ORDERING INFORMATION

Infinity M300	MS18501
Contact Dräger for ordering details.	

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