

# RELIABLE: ALWAYS, EVERYWHERE

PROFESSIONAL DEFIBRILLATORS  
FOR EMERGENCY MEDICINE



DefiMonitor **EVO**

[www.primedic.com](http://www.primedic.com)



**PRIMEDIC™**  
Saves Life. Everywhere.

‘Every day is a  
new start’

Thomas Stearns Eliot



# FURTHER. BETTER.



WHEN EVERY MINUTE COUNTS, PRIMEDIC™ DEFIBRILLATORS CAN HELP HEARTS STOP MISSING ANOTHER BEAT. ANYWHERE. WHAT MATTERS IS THAT THEY BE USED QUICKLY. ANY TIME.

## WORLDWIDE EXCELLENT REPUTATION

Perfect technology, easy operation, great mobility and absolute reliability in extreme conditions: unmistakable attributes of PRIMEDIC™ defibrillators. No wonder our extremely robust devices enjoy an excellent reputation in resuscitation and emergency medicine worldwide.

## DECADES OF EXPERIENCE

Our family-run company has been serving medical technology for 40 years, manufacturing professional and automatic defibrillators in Germany for professionals and laymen. We are advancing the evolution of new technologies for a better quality in close cooperation with clinics and operators.

## PROFESSIONALS NEEDED

Our new top product evolved from consistent improvements to the DefiMonitor XD and HeartSave series: the DefiMonitor EVO. Built for use by paramedics and emergency services, our defibrillators combine maximum equipment with the greatest reliability possible. With it, no valuable time is lost during use.

**PRIMEDIC™. Saves Life. Everywhere.**

# PRIMEDIC™ – DefiMonitor EVO

## FACTS FOR PROFESSIONALS

### FEATURES OF THE 12-CHANNEL DEFIBRILLATOR

- ▶ Manual, AED and monitor mode
- ▶ Transthoracic pacer (NIP)
- ▶ Pulse oximeter (SpO<sub>2</sub>)
- ▶ NIBP
- ▶ IBP (2-channel)
- ▶ Capnography (EtCO<sub>2</sub>)
- ▶ Temperature (2-channel)
- ▶ Interpretation mode
- ▶ 3G/GSM, WLAN, Bluetooth
- ▶ Up to 12 ECG-leads simultaneously
- ▶ Multiparameter patient monitoring
- ▶ Accessory pouches for optimised storage
- ▶ Integrated thermal printer
- ▶ Data management
- ▶ Shock- and scratch-resistant TFT monitor, easy to read in any situation

### TEN HOUR OPERATION WITHOUT CHARGING

The highest level of innovation guarantees the operational reliability of the DefiMonitor EVO in even the worst of weathers. Powerful batteries ensure ten hours of standby operation without recharging.

### MODULAR PRODUCT DESIGN FOR INDIVIDUAL NEEDS

Adapted to the needs of modern emergency medicine, the DefiMonitor EVO ensures continuous patient monitoring in both the preclinical and clinical fields. The modular product design permits different configurations from a basic to a fully equipped model for individual needs.





## RUGGED POWER PACK

- ▶ SOLID CONNECTOR SYSTEMS
- ▶ INTEGRATED IMPACT BUFFER
- ▶ IMPACT AND SCRATCH RESISTANT MONITOR
- ▶ HIGH IP PROTECTION CLASS
- ▶ NON-BREAKABLE PADDLES
- ▶ INTEGRATED SIDE POUCHES TO PROTECT ACCESSORIES AND DEVICE
- ▶ 12 VOLT WALL MOUNT CHARGER
- ▶ SAFE STORAGE OF THE INTEGRATED CHILDREN'S PADDLES
- ▶ CERTIFIED ACCORDING TO ONE-METRE DROP TEST AND EN1789

# PERFORMANCE OF DefiMonitor EVO ON SCENE

**1** **ADVANCED ENERGY MANAGEMENT** for up to 10 hours standby mode. Reliable continuous operation is guaranteed by an intelligent battery management system or direct mains operation.

**2** **OPTIMISED CARRYING COMFORT** thanks to the carrying handle that lies safely in the user's hand. The quick readiness for use on site is also ensured through the use of a shoulder strap.

**3** **CENTRAL ROTARY KNOB** permits intuitive and logical navigation through the control menu.

**4** **QUICK ACCESS BUTTONS** permit the direct call-up of all important functional elements.

**5** **HIGH-RESOLUTION, MULTIFUNCTION COLOUR MONITOR** allows the simultaneous display of all 12 ECG leads. Individual user settings are possible in setup menu.

**6** **INTEGRATED THERMAL PRINTER** allows the comparison, documentation and print out of analysis results and patient data.

**7** **INTELLIGENT CABLE MANAGEMENT** saves valuable time.

**8** **SAFETY** is guaranteed by the extensive alarm system and automatic tests of all internal system components.



SIDE CONNECTIONS





# OPTIONS

## 12-LEAD ECG



Free, user-based configuration options for the 12-lead ECG display

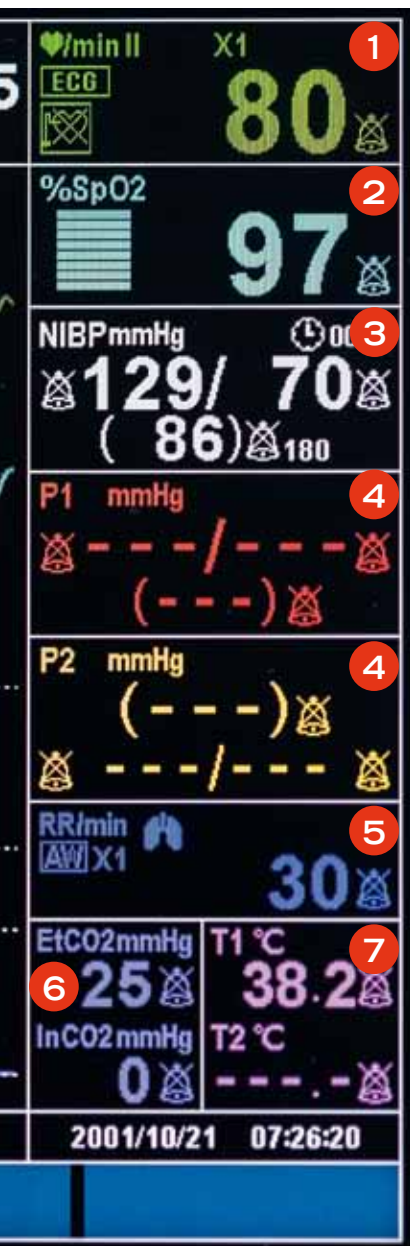
## AUTO/ MANUAL MODE



Visual user support during resuscitation with clear icons in AUTO mode



MANUAL MODE, FULLY EQUIPPED



- 1 ECG CURVE DISPLAY
- 2 SpO<sub>2</sub> PULSE OXIMETER  
NELLCOR® OXIMAX® SENSOR
- 3 NIBP (non-invasive blood-pressure  
measurement)
- 4 IBP  
(invasive blood-pressure measurement)  
2-lead IBP
- 5 RESPIRATION
- 6 EtCO<sub>2</sub> CAPNOGRAPHY  
Type: Respironics®/  
sidestream/mainstream module
- 7 TEMPERATURE  
2-channel temperature





## MULTIFUNCTIONAL PADDLES: HANDY, SAFE AND STRONG

The functionally optimised defibrillation paddles of the DefiMonitor EVO are easy and safe to use. A particularly positive feature of the handy, non-breakable paddles: Thanks to the innovative bayonet mechanism, the adult's paddle quickly becomes

a pediatric paddle – no adaptor required. So electrodes are always where you need them at all times: right on the device. Classic PRIMEDIC™ SavePads Connect guarantee hands-free defibrillation at any time.

SELECT ENERGY



PADDLE SET



PRIMEDIC™ SavePads Connect



CHARGE / RECORD / PRINT (REC)



INTEGRATED PEDIATRIC PADDLES



# ENERGY MODULES

DEVICE WITH POWER  
SUPPLY W/O BATTERY



DEVICE WITH POWER  
SUPPLY WITH BATTERY



DEVICE WITH 2  
BATTERIES



DEVICE WITH ONE  
BATTERY



INDIVIDUAL BATTERY



POWER SUPPLY (WIDE  
RANGE POWER SUPPLY)



# WALL MOUNTING/ CHARGER

EN1789 Approved

ONE-HANDED RELEASE  
Step 1



WALL MOUNTING



ONE-HANDED RELEASE  
Step 2



DEVICE IN WALL MOUNT



ONE-HANDED RELEASE  
Step 3



LED CAPACITY CHECK



# CABLE MANAGEMENT

LEFT SIDE  
WITHOUT CABLE



LEFT SIDE  
WITH CABLE



RIGHT SIDE  
WITHOUT CABLE



RIGHT SIDE  
WITH CABLE



DEVICE WITHOUT  
POUCHES



DEVICE WITH  
POUCHES



# TECHNICAL DATA

## DefiMonitor EVO

### General

Modes of operation	AED mode, automatic ECG analysis with audio and visual instructions, manual mode, asynchronous and synchronous defibrillation per paddles or self-adhesive electrodes, ECG monitoring
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### Defibrillation

Impulse shape	Biphasic
Energy in the automatic mode	According to patient impedance
Energy levels in manual mode	1J, 2J, 3J, 4J, 5J, 6J, 7J, 8J, 9J, 10J, 15J, 20J, 30J, 40J, 50J, 75J, 100J, 150J, 175J, 200J, 300J, 360J
Charge time	< 6s for 200 J (with a new, fully charged battery at 25 °C) 9s for 360 J (with a new, fully charged battery at 25 °C)
Pacemaker detection	Detect pacer pulses of $\pm 2$ mV to $\pm 700$ mV with pulse widths of 0.1 msec to 2 msec and a rise time of 10 % of the width, not to exceed 100 msec.
Cardioversion	Manual activation of the cardioversion via the SYNC button, defibrillation via paddles as well as self-adhesive electrodes

### Defibrillation electrodes

Adhesive electrodes	Hands-free
Shelf life	36 months
Cable length	2.0 m
Active electrode surface	164 cm <sup>2</sup> overall
Paddles	Adult electrodes with built-in child's electrodes
Functions of paddles	Energy selection and charging/discharging as well as printing of data by operating the paddles

### Monitor

Model	TFT-LCD colour, dual mode
Dimensions	170 x 128 mm (diagonal 8.4"/ 212 mm)
Resolution	800 x 600 pixel
Number of channels	4 or 12 ECG leads, cascaded can be shown

### Resuscitation guideline

Factory set	Guideline 2010 (ERC/AHA)
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### ECG

12-Channel-Leads	Extremities acc. to Einthoven (bipolar) <b>I, II, III</b> , extremities acc. to Goldberger (unipolar) <b>aVR, aVL, aVF</b> , thoracic wall leads acc. to Wilson (unipolar) <b>V, V1, V2, V3, V4, V5, V6</b>
Heart rate	0.20 to 300 bpm
Analysis time	5–9s
Interpretative algorithm	12-channel interpretation analysis program of Glasgow University

### Transthoracic pacemaker (NIP)

Modes	Demand, Async (FIX)
Stimulation frequency	30 ppm to 180 ppm
Impulse current	0 mA to 140 mA
Impulse shape	Rectilinear, constant current

### Pulse oximeter (SpO<sub>2</sub>)

Model	Nellcor®
Range	1 % bis 100 %

<b>NIBP</b>	
Technology	Oscillometric measurement
Measurement range adult/child	SYS 60 to 250 mmHg / MAP 45 to 235 mmHg / DIA 40 to 200 mmHg
Measurement range neonatal	SYS 40 to 120 mmHg / MAP 30 to 100 mmHg / DIA 20 to 90 mmHg
<b>IBP</b>	
Measurement range	-50 to 300 mmHg
Channels	2 parallel connections
<b>Capnography (EtCO<sub>2</sub>)</b>	
Type	Respironics®
Ambient-CO <sub>2</sub> -level	From 0 to 700 ppm
EtCO <sub>2</sub> -module	Sidestream/mainstream
<b>Temperature</b>	
Measurement method	Thermistor
Range	0 to 50 °C (32.0 to 122 °F)
Channels	2 parallel connections
<b>Respiration</b>	
Technology	Impedance pneumography / non-dispersive infrared spectroscopy
<b>External interfaces</b>	
USB	Memory stick port
SD Memory Card	For extended memory
Telemetry	3G/GSM, WLAN, Bluetooth
<b>Data management</b>	
Memory	12-channel ECG (100 records) / event (250 records)
Storage medium	USB memory, SD card
<b>Integrated printer</b>	
Model	Thermal print
Channels	1 to 12 channels
Paper	Thermal paper, folded
Paper size	80 mm
Printer speed	25 or 50 mm/s
<b>Power supply</b>	
AC power	Wide range power supply 100 V–240 V, 50 Hz/ 60 Hz
Rechargeable battery	Lithium-ion, 10.8 V/ 7200 mAh
Operation time	Up to 10 hours
Number of shocks	200 Schocks@200 J (2 batteries)
Recharging time	Approx. 5 hours
<b>Dimensions</b>	
Height x width x depth	Approx. 350 mm x 430 mm x 220 mm
Weight	Approx. 7 kg excluding paddles, accessories and energy supply
<b>Accessories</b>	
Standard	Accessory pouches included
<b>Options</b>	
Fixation	Vehicle wall charging station according to standards EN1789
<b>Ambient conditions</b>	
Operating temperature	0–50 °C
Storage temperature	-20–70 °C
Rel. humidity	5–95 %, non-condensing



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