



## Technical data

# FRED® easyport® plus

## System

### Versions

#### FRED® easyport® plus:

- **AED FIRST:** AED semi-automatic with or without ECG display (configurable)
- **AED AUTO:** AED fully automatic with or without ECG display (configurable)
- **AED MANUAL:** AED semi-automatic and manual with ECG display

### Device

**Dimensions:** 46 x 150 x 143 mm (h x l x w)

### Weight:

- Approx. 0.780 kg with battery (battery = 93 g)
- Approx. 0.870 kg with battery and electrodes
- Approx. 1.510 kg with bag, electrodes & feedback sensor (feedback sensor = 161 g)

### Ambient conditions

#### Temperature:

- Operation: -5 to 50 °C;
- Limited operation: -10 °C to -5 °C for 1 hours or -20 °C to -10 °C for 20 minutes
- Transport/storage: -10 to 50 °C/5 to 50 °C

#### Humidity:

- Operation: 10 to 95% non-condensing
- Transport/storage: 10 to 95% non-condensing

#### Pressure:

- Operating: 540 to 1060 hPa
- Transport/storage: 500 to 1060 hPa

**Dust and water protection:** IP44

### Electrical data

#### Power supply:

- Lithium/MnO<sub>2</sub> 12V, 16.8 Wh (non rechargeable)
- Lithium-Ion 11.1V, 12.9 Wh (rechargeable)

#### Battery capacity:

(corresponding to laboratory tests at 25 °C)

#### Lithium/MnO<sub>2</sub>:

- approx. 80 shocks at max. energy with 2 minutes monitoring between shocks with total running time of approx. 4 h 50 minutes
- **Standby:** with weekly self-tests approx. 1 year, 1 month
- **Standby:** with monthly self-tests approx. 2 years, 6 months

#### with Li-Ion (rechargeable):

- approx. 70 shocks at max. energy with 2 minutes monitoring between shocks with total running time of approx. 3 h
- **Standby:** with weekly self-tests approx. 1 year, 1 month
- **Standby:** with monthly self-tests approx. 1 year, 6 months

### Display/voice prompts

#### Display:

- High resolution color LCD 320x 240, 3.5 "
- ECG curve display 61 x 15 mm (configurable)
- Action picture
- CPR feedback information

**Voice prompts languages:** The device can be provided with various languages.

### Display/voice prompts

**Metronome:** configurable pace for CPR

### Interfaces & data recording

**Recorded data:** 8 hours ECG signal recording and technical events on a internal 8 Gbit memory SD card

### USB

- USB A 2.0 host (max. 500mA) for LifePoint sensor
- USB mini B 2.0 device only for service

### Wireless

- Bluetooth 4.0

## Defibrillation

### Defibrillation mode

Semi-automatic or fully automatic AED version

Manual defibrillation

### Waveform

BTE (Biphasic Truncated Exponential)

**Multipulse Biowave®**

### Energy

**AED adult:** 150/200/200 J - other energies settings can be configured

**AED child:** 50/50/50 J - other energies settings can be configured - automatic adaptation when paediatric pads are connected.

### Pads

**Type:** for adult and child

**Cable length:** 2 m

**Size pads:** 80 cm<sup>2</sup> (adult) and 42 cm<sup>2</sup> (child) active surface

### CPR feedback (optional)

**Sensor:** Argus LifePoint®

**Measurements:** Depth, speed and recoil<sup>a</sup> during chest compression

a. Except for France, Germany, UK and USA

## Standards

### Certification:

**Classification according to Directive 93/42/EEC:** IIb

### Standards:

- IEC60601-1: Electrical safety
- IEC60601-1-2: EMC
- IEC 60601-1-11: Requirements for MD devices in home healthcare environment
- IEC 60601-1-12: Environmental condition for emergency medical devices
- IEC60601-2-4: Defibrillators infrequent (non-rechargeable battery/frequent use (rechargeable battery)
- IEC 60529: Protection indication
- EN 13718-1 Requirements for medical devices used in air ambulances
- EN 1789 Medical vehicles and their equipment
- RTCA DO-160 A1 Environmental Conditions and Test Procedures for Airborne Equipment

**Notified body:** CE 0123

