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FM-200

Technical Specifications

Product Specifications

1. Safety Specifications

1.1 Product Classification

Product name	Doppler Fetal Heart Rate Detector
Safety Standard	EN 60601-1, IEC 60601-2-37
Classification	
Electric shock resistance type	Internally powered equipment
Electric shock resistance grade	Type B applied part
Function	Ultrasonic Doppler fetal heart rate detector with the function of fetal heart rate detecting
The type of ultrasonic Doppler sensor	Continuous ultrasonic Doppler fetal heart rate detector
Hazardous liquid immersing resistance grade	Main unit is IPX0 while probe is IPX1
Safety grade when used in the condition with mixed gas of flammable anesthetic gas with air or/with Nitrous oxide	An equipment can not used in the condition with mixed gas of flammable anesthetic gas with air or/with Nitrous oxide
Work type	Continuous work
Electromagnetic compatibility	Group I, Class B

1.2 Environment Specifications

Item	Temperature	Humidity (Non-Condensing)	Atmospheric Pressure
Operating	5°C-40°C	30%~85%	70kPa-106kPa
Storage & Transport	-20°C-+55°C	≤93%	70kPa-106kPa

2. Physical Specifications

Dimensions	130mm×89mm×34mm	
Weight	405g (Including battery)	
Power specifications	DC	2 x 1.5V Alkaline Battery
	Power	500mW

3. Hardware Specifications

Battery	
Type	Alkaline Battery (AA) (non-rechargeable)
Storage temperature	-10°C ~ +40°C
Rated voltage	2 x 1.5V
Length of Power Supply	>5h

4. Technical specifications

Probe	
Work mode	Continuous ultrasonic Doppler
Ultrasonic work frequency	2MHz or 3MHz, tolerance: $\pm 5\%$;
Synthetical sensibility(At position 200mm far from the probe surface)	$\geq 90\text{dB}$ (Measured in the state with rated work frequency of 2 MHz and reflecting target speed of 140bpm); (3MHz is optional, error: $\pm 5\%$);
Maximum ultrasonic power output	$< 18\text{mW}$
Peak sound pressure at space peak and time peak	$\leq 0.2\text{MPa}$
Output beam intensity	$I_{ob} < 20 \text{ mW/cm}^2$
Peak-negative acoustic pressure	$P \leq 1\text{MPa}$
Spatial-peak temporal-average derived intensity	$I_{spta} < 100\text{mW/cm}^2$
Effective ultrasonic emitting area	$3.14\text{cm}^2 \pm 10\%$
Fetal heart rate (FHR)	
Measuring range of fetal heart rate	50bpm ~ 240bpm
Resolution	1bpm
Precision	$\pm 2\text{bpm}$
Display	LCD(Can be turned on and off the backlight)
Fetal heart rate alarm limit	adjustable
	Adjustable lower limit range: 50bpm ~ 120bpm Adjustable upper limit range: 160bpm ~ 240bpm
Alarm triggering time	$< 3\text{s}$
Audio output	0.5W/8Ω speaker can be connected with headphone, and the volume is adjustable
Automatic power-off	it will automatically power off in case of no signal for 2 minutes



Care from
hearts

Shenzhen Biocare Bio-Medical Equipment Co., Ltd.

Headquarters: 7/F, Block A, Shenzhen Mingyou Industrial Products
Exhibition & Procurement Center, Baoyuan Road, Xixiang Sub-district,
Bao'an District, 518102 Shenzhen, P.R. China

Factory: 2/F West, 4th Block, Dayang Road South, Fuyong Sub-district,
Bao'an District, 518103 Shenzhen, P.R. China

Tel: +86-755-2796 0888

Fax: +86-755-2796 0643

E-mail: sales@biocare.com.cn