

Bluetooth HxM Heart Rate Monitor

PRODUCT DESCRIPTION

The Bluetooth HxM Heart Rate Monitor system consists of a Bluetooth HRM device, and Zephyr Smart Fabric sensor strap.

The device contains an internal accelerometer and provides algorithm-derived speed, distance and stride count data.

An SDK document describing communications protocols and data packet contents is available free on return of a signed EULA agreement.



Company Information

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Data subject to change

FEATURES

- Compact
- Robust
- Lightweight
- Comfortable, Washable Strap
- Rechargeable Batteries
- Heart Rate
- Heart R-R
- Speed
- Distance
- Strides

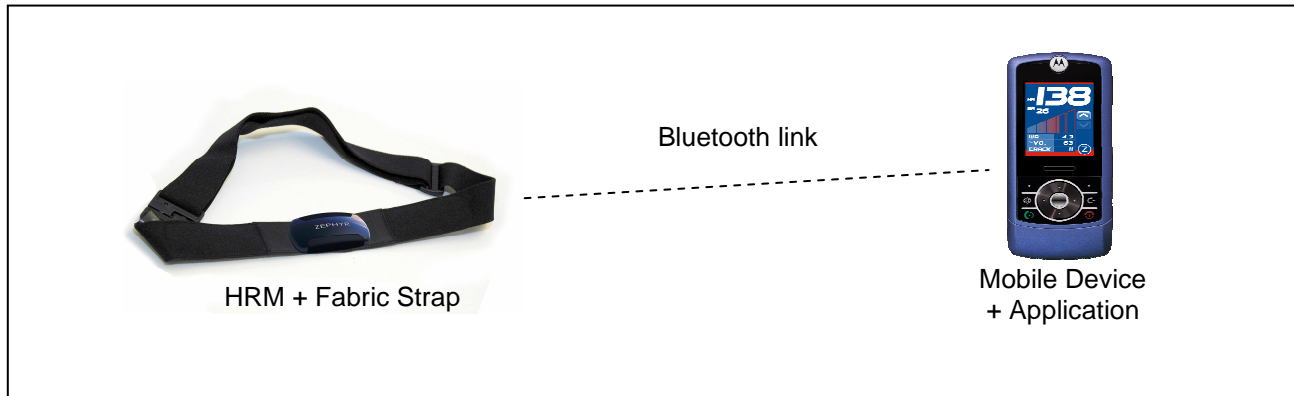
APPLICATIONS

- Consumer Fitness
- Corporate Wellness
- Weight Loss

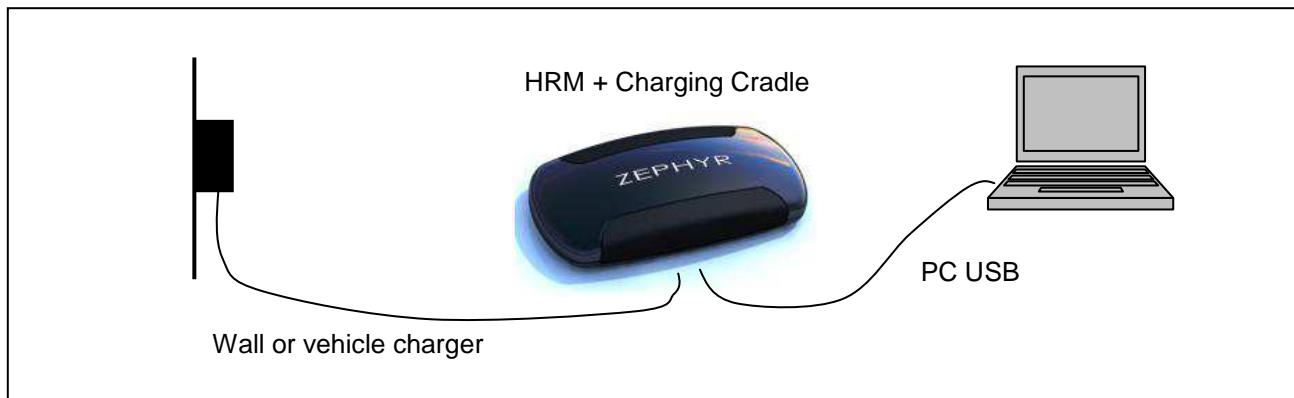


System Diagrams

Data Transmit



Battery Charge Options



Specifications (Unless otherwise stated: Temperature = 25 °C, Pressure = 1 ATM)

Power Supply:

Type:	Lithium Polymer, rechargeable
Storage Life:	6 months between charges
Voltage	3.6 V to 4.2V
Charge Time:	1hr to 90%, 3hrs to 100%
Charge Duration:	24 hrs
Charge Cycles:	500

Transmitter:

Bluetooth Compliance	Version 2.0 + EDR
Supported Profile	Serial Port
Operating Frequency	2.4 to 2.4835 GHz
Output Power:	2 mW
Operating Range:	30 ft / 10 m typical radius indoors (line of sight)
Operation:	Bluetooth Slave
Antenna Type:	Internal

Parameter	Notes/	Values			Unit
	Notes	Min	Typ	Max	
Heart Rate					
Range		30		240	BPM
Accuracy			1		BPM
Time to first lock	At 60 bpm		7		s
No Signal Response time	60 to 0 bpm		7		s
Sampling Rate			250		Hz
DC Input impedance	Between snaps	20			MΩ
Input Dynamic Range		0.2		10	mV _{pp}

Parameter	Notes	Values			Unit
		Min	Typ	Max	
Garment					
Number of washes	1		50		BPM
Environmental (Operating)					
Humidity		5		95	%RH
Temperature		-10		50	°C
Water Resistance		0 M AS Per ISO2281			

1. When following Zephyr washing instructions.

International Standards

The BT Heart Rate Monitor has been designed to conform to the following:

FCC Part 15 and RTTE Directive (Europe)

Hazards

- Subjects fitted with a heart pacemaker should not use this device
- Device should not be worn in explosive atmospheres (such as gas stations)
- Device should not be worn near blasting areas where radio detonation methods may be used

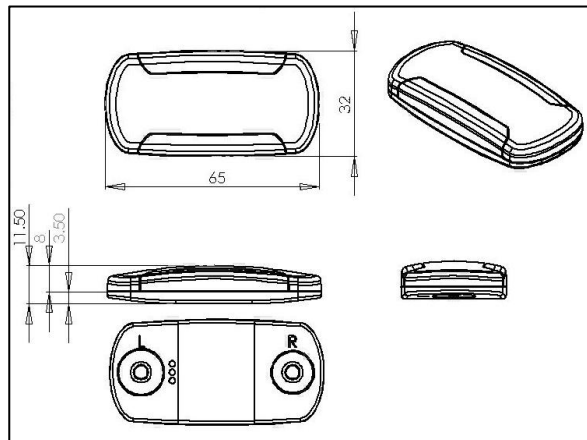
Storage Limits

Parameter	Notes/ Conditions	Values		Unit
		Min	Max	
Storage Humidity		5	95	%RH
Storage Temperature (< 1 month)	Power off	-20	45	°C
Storage Temperature (< 6 month)	Power off	-20	35	°C
Altitude			15000	Ft ASL

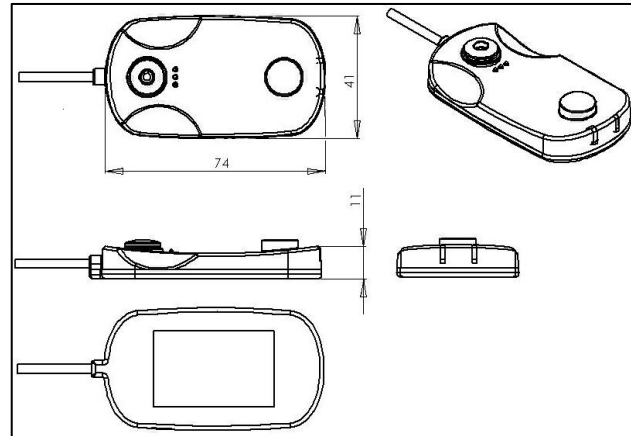
Recommended storage Temperature: 20°C

Mechanical Characteristics

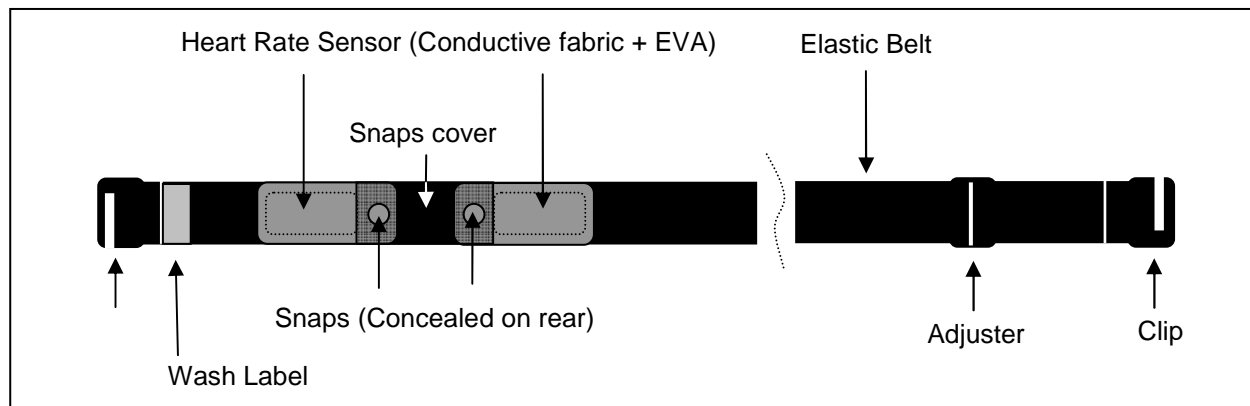
Dimensions	Device	65 x 32mm
	Charge Cradle	74 x 41 mm
	Strap	1020 x 30 mm (unstretched: S – XL adjustable)
Weight	Strap	30 g
	Transmitter/recorder	17 g



Device



Cradle



Strap

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