

VM-2160 Hand Held Pulse Oximeter

Measuring Range

SpO ₂	0 - 100%
Pulse Rate	20 - 300 bpm

Accuracy

SpO ₂ (70 - 100%)	±2%
Pulse Rate	± 1 digit (≤100bpm) ± 1% (>100 bpm)

Optical Specifications

Red emitter	660nm, typ 3.5mW
Infra-red emitter	905nm, typ 3.5mW

Display

Features	Colour, 65,000 colours, 128 x 160 pixels
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Data displayed	Oxygen saturation, pulse rate, plethysmogram, bar graph, short and long term trends
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Indicators	Signal quality, pulse amplitude, battery status, alarm silenced, volume silenced, sensor detection, sensor disconnection
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Trend Information

Short term trend	15 / 30 / 240 minutes
Long term trend	> 480 hours, maximum 50 datasets

Environmental Conditions

Operating temperature	-20 - 50°C , 15 - 95% RH, 600 - 1300 hPa
Storage temperature	-30 - 70°C, 10 - 95% RH, 600 - 1500 hPa

Regulatory Approvals

Standards	CE BS EN 60601-1:2006, BS EN 60601-1-1:2001 BS EN 60601-1-2:2007, BS EN ISO 9919:2005
Safety	Class II, Type BF

Assembly

Construction	IP32
Dimensions	118 mm (L) x 60 mm (W) x 25 mm (H)
Weight	Approximately 160g (including batteries, without sensor)
Power Supply	3 x AA alkaline batteries
Battery Life	> 2 days continuous operation or approximately 5 days in economy power mode
PC interface	USB 2.0

Part Numbers

VM-2160*	0012175
* Language package: Central European, including: English, Afrikaans, Dutch, French, German, Hungarian, Italian, Polish, Portuguese and Spanish	

Additional Accessories Available

Multi-site Y Sensor	0015002
Lingual Sensor	0015000
Lingual Clip (Small)	0025010
Lingual Clip (Medium)	0025011
Lingual Clip (Large)	0025012
Pulse Oximetry Extension Cable, 1.2m cable length (XT6500)	0014895
Pulse Oximetry Extension Cable, 2.4m cable length (XT6501)	0014896
Silicone Protective Cover	0022160
Carrying Case	0022178
Universal Mounting Plate, V-adapter with female pole-mount thread (1/4 - 20)	0022171
'V' mount wall plate	0121180
'V' mount pole clamp (Small: 14 - 25mm clamping width)	0121181
'V' mount pole clamp (Large: 16 - 40mm clamping width)	0121182
'V' mount rail clamp	0121184
'V' mount pole clamp, horizontal	0121197
Universal Mounting Clamp, with vertical and horizontal adjustments	0121200

NB. When ordering the VM-2160 please select from the following reusable sensor styles:

Standard Lingual Clip Sensor or Multi-Site Y sensor (supplied with a choice of lingual clip - small, medium or large) and indicate at the time of ordering.

* In accordance with ISO 9919:2005 Standards.

N.B. The universal mounting plate is required when using any of the above mounting options.

Specifications subject to change.

CE 0086

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Date: 03/15



ISO 13485:2003



VM-2160

Hand Held Pulse Oximeter

Designed with the most difficult conditions in mind

- For spot checking or constant monitoring of SpO₂ and pulse rate
- Clear and bright, colour display
- Robust, ergonomic design with durable silicone protective cover
- Stores and restores up to 480 hours of trend data
- Adjustable high and low alarms
- Antibacterial keypad



The ergonomic VM-2160 hand held pulse oximeter has the durability of a compact and lightweight hand held unit for spot checking of SpO₂, but also has the power and functionality of a stand alone pulse oximeter.

The VM-2160 incorporates adjustable high and low alarms for both the SpO₂ and pulse rate with audible pulse tones, and is able to store and restore up to 480 hours of patient trend data, enabling the unit to also be used for continual patient monitoring.

Utilising the latest display technology, the clear and bright colour screen offers superb visibility in all lighting conditions, including direct sunlight.

The ergonomic design of the VM-2160 Hand Held Pulse Oximeter combines outstanding performance and reliability in pulse oximetry

Standard Package

- VM-2160 Pulse Oximeter Monitor
- Reusable SpO₂ sensor*
- USB data cable
- Silicone protective cover
- PC software
- Instruction manual on CD

* Please select either Lingual Sensor or Multi-site Y Sensor, and indicate at the time of ordering



**Long term
monitoring
and
trending**

Key features of the VM-2160 Hand Held Pulse Oximeter

- Self-explanatory and ergonomic functions enable intuitive operation
- The colour information display, as well as the simple information structure, support quick decisions and a rapid user reaction in critical situations
- Intelligent linking of visual and acoustic information and signals
- The pulse tone indicates the level of oxygen saturation
- Automatic suppression of ambient light influences
- Signal quality indications
- Simple handling and clear error messages effectively prevent incorrect operation of the VM-2160
- 20 language options available - for operational control
- Rapid data transfer using a standard USB interface
- Silicone protective cover included in the package
- Powered by standard AA alkaline batteries
- The most modern technologies and energy-saving elements enable continued use of the device over several days



VM-2160 Display



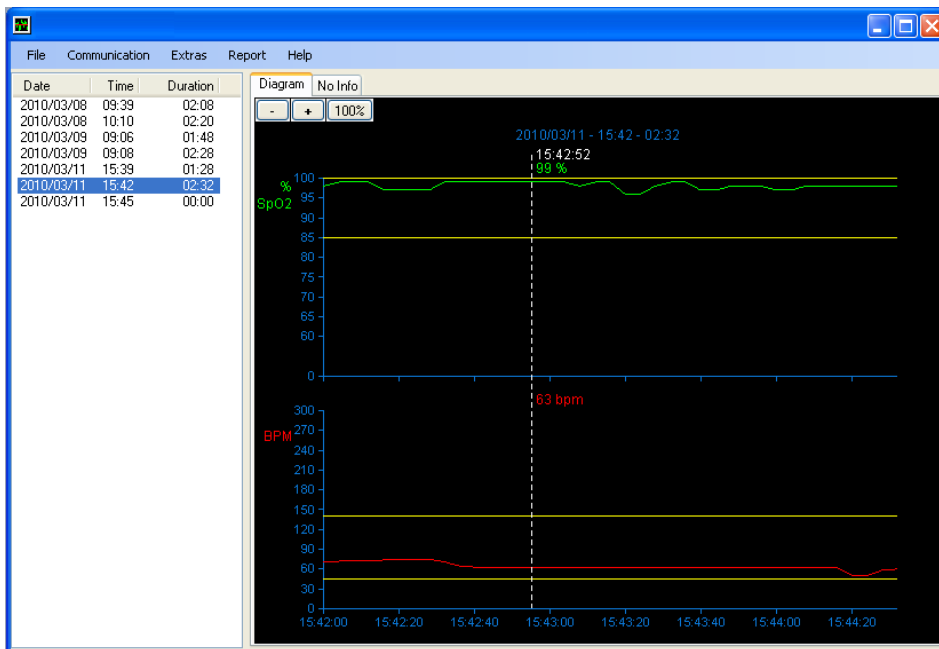
VM-2160 in Protective Cover





Actual Size

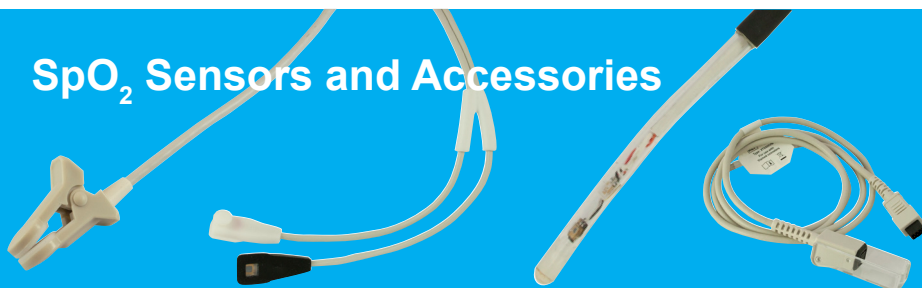
Powerful Pulse Oximetry PC Software



With the convenient Pulse Oximetry PC Software all measured values, selected alarm limits and alarm messages can be transferred to the computer via the USB interface.

The data can be viewed on the computer and patient information added. The PC software enables basic statistical evaluation of the stored data.

SpO₂ Sensors and Accessories



Lingual Sensor
Part Number: 0015000

Multi-site Y Sensor
Part Number: 0015002

**Thames Medical
'UYB' Rectal/Cloacal
Sensor**
0.9m Part Number: UYB274

Extension Cables
1.2m Part Number: 0014895
2.4m Part Number: 0014896

For use with Multi-site Y Sensor



**Small
Lingual Clip**
Part Number: 0025010

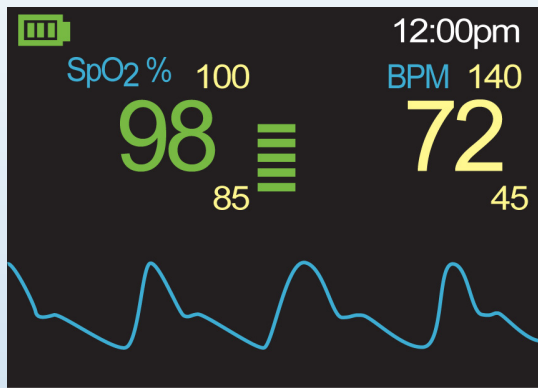


**Medium
Lingual Clip**
Part Number: 0025011

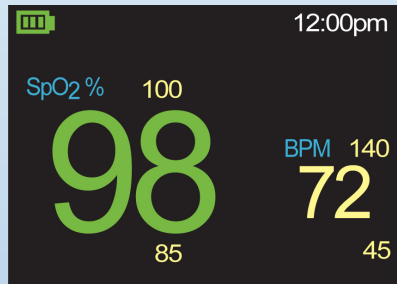


**Large
Lingual Clip**
Part Number: 0025012

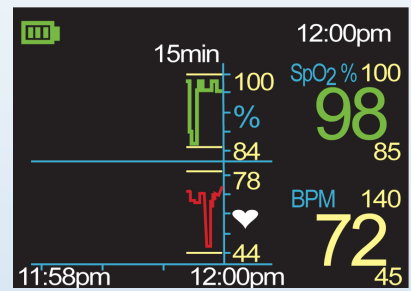
Display Formats



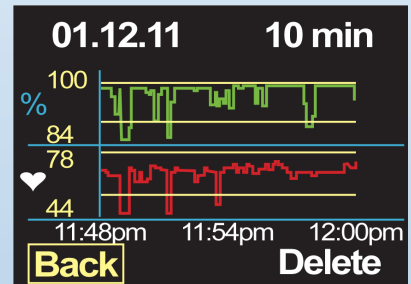
Default Display



Large Digit Display



Short Term Trending Display



Long Term Trending Display

Mounting Options and Accessories


For use with VM-2160



0022178

- Fluid repellent
- Non rot
- U.V. stable
- Washable at 60°C
- Self healing and waterproof zips
- micrAgard silver-lining inners
- Abrasion and tear resistance
- High visibility and reflective properties

Carrying Case



0022160

Silicone Protective Cover



0022171

N.B.: The universal mounting plate is required when using any of the mounting options shown.

Universal Mounting Plate




0121180

'V' Wall Mount




0121200

Universal Mounting Clamp




0121181

'V' Mount Pole Clamp
Small: 14 - 25mm clamping width



0121182

'V' Mount Pole Clamp
Large: 16 - 40mm clamping width



0121184

'V' Mount Rail Clamp
Attaches to most types of medirail.
30mm (H) x 10mm (D) medirail