

VM-2160 Hand Held Pulse Oximeter

Measuring Range

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

Accuracy

SpO ₂ (70 - 100%)	< 3.0% Accuracy A _{RMS} *, ± 1 S.D = 2.0%
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 OLED, 26,000 colours, 128 x 160 pixels
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Date 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	IPX2 with silicone cover, splash-proof version of IPX4 available on request.
Dimensions	118 mm (L) x 60 mm (W) x 25 mm (H)
Weight	Approx. 160 g (including batteries, without sensor)
Power Supply	3 x AA alkaline batteries.
Battery Life	> 2 days continuous operation or approx 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
Carrying Pouch	0022179
Universal Mounting Plate, V-adaptor with female pole-mount thread (1/4 - 20)	0022171
'V' mount wall plate	0121180
'V' mount pole clamp (Small: 14 - 25mm span)	0121181
'V' mount pole clamp (Large: 16 - 40mm span)	0121182
'V' mount rail clamp	0121184
'V' mount pole clamp, multi-position	0121197
Universal Mounting Clamp, with vertical and horizontal adjustments	0121200

* in accordance with ISO 9919:2005 Standards.

NB. The Universal Mounting Kit is required when using any of the above mounting options.

Specifications subject to change.

Carrying Case for VM-2160

- 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

Part Number: 0022178



Carrying Pouch for VM-2160

Part Number: 0022179



CE

Distributed by:



Viamed Limited · 15 Station Road · Cross Hills
Keighley · West Yorkshire · BD20 7DT · United Kingdom
Tel: +44 (0)1535 634 542 Fax: +44 (0)1535 635 582
Email: info@viamed.co.uk Website: www.viamed.co.uk



Part Number: 0092173
Date: 05/13



BS EN ISO 9001:2008
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 OLED 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.

Utilizing the latest Organic LED 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

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



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 languages options available
- 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 OLED Display



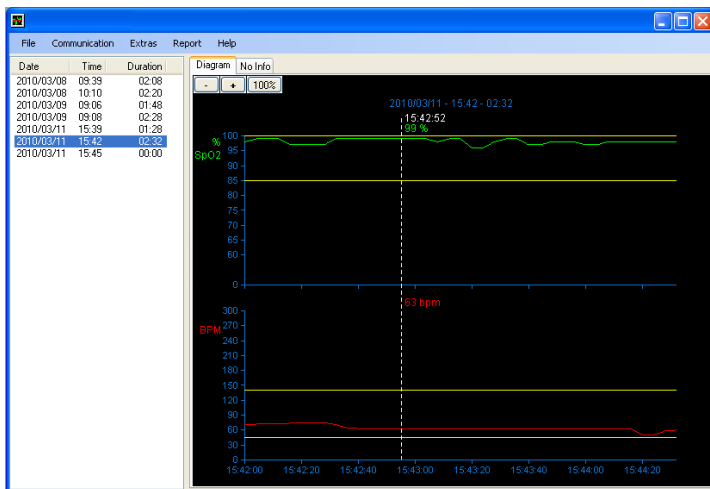
VM-2160 in Protective Cover





Actual Size

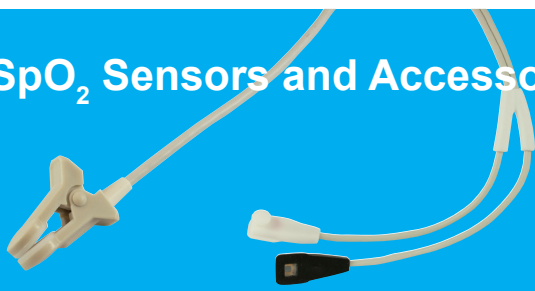
Powerful Pulse Oximetry PC Software



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.

The software can also be used to display and store the measurement values and alarm messages on the computer in parallel to ongoing measurements. This function is activated by setting the real-time mode of the VM-2160. When this mode is activated, the device transfers the actual measurement values for Pulse Rate measurement values every 4 seconds to the computer via the USB interface.

SpO₂ Sensors and Accessories



Lingual Sensor
Part Number: 0015000

Multi-site Y Sensor
Part Number: 0015002



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

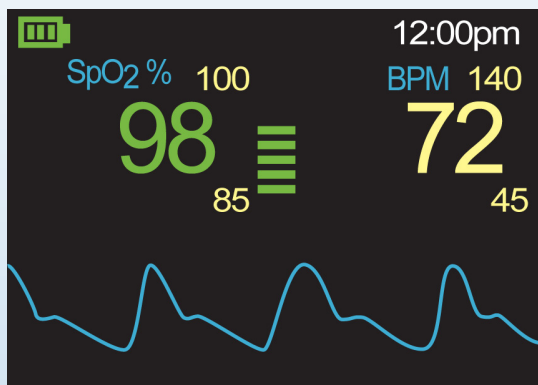


Medium Lingual Clip
Part Number: 0025011

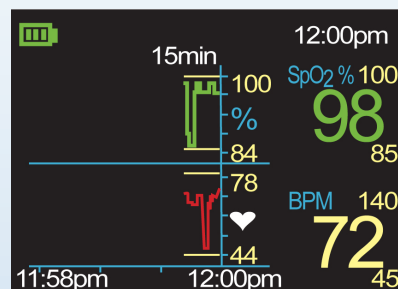


Large Lingual Clip
Part Number: 0025012

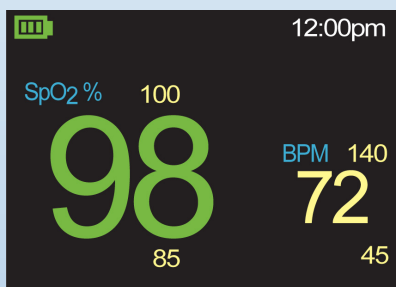
Display Formats



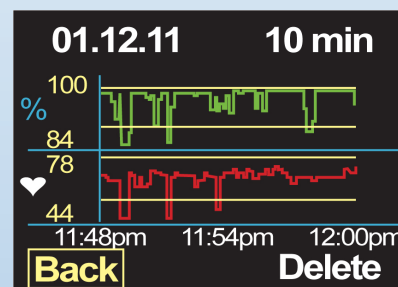
Default Display



Short Term Trending Display



Large Digit Display



Long Term Trending Display

Mounting Options and Accessories

