

# VM-2160 Hand Held Pulse Oximeter

<b>Measuring Range</b>	
SpO <sub>2</sub>	0 - 100%
Pulse Rate	20 - 300 bpm
<b>Accuracy</b>	
SpO <sub>2</sub> (70 - 100%)	< 3.0% Accuracy A <sub>RMS</sub> *, ± 1 S.D = 2.0%
Pulse Rate	± 1 digit (≤100bpm) ± 1% (>100 bpm)
<b>Optical Specifications</b>	
Red emitter	660nm, typ 3.5mW
Infra-red emitter	905nm, typ 3.5mW
<b>Display</b>	
Features	Colour OLED, 26,000 colours, 128 x 160 pixels
Date displayed	Oxygen saturation, pulse rate, plethysmogram, bar graph, short and long term trends
Indicators	Signal quality, pulse amplitude, battery status, alarm silenced, volume silenced, sensor detection, sensor disconnection
<b>Trend Information</b>	
Short term trend	15 / 30 / 240 minutes
Long term trend	> 480 hours, maximum 50 datasets
<b>Environmental Conditions</b>	
Operating temperature	-20 - 50°C, 15 - 95% RH, 600 - 1300 hPa
Storage temperature	-30 - 70°C, 10 - 95% RH, 600 - 1500 hPa
<b>Regulatory Approvals</b>	
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
<b>Assembly</b>	
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
<b>Part Numbers</b>	
VM-2160*	0012175
* Language package: Central European, including: English, Afrikaans, Dutch, French, German, Hungarian, Italian, Polish, Portuguese and Spanish.	
<b>Additional Accessories Available</b>	
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 Kit, V-adapter with female pole-mount thread	0022171
Universal Mounting Clamp, with vertical and horizontal adjustments (CP2345)	0121200
'V' mount pole clamp, horizontal	0121197
'V' mount rail clamp	0121184
'V' mount pole clamp (Small: 14 - 25mm span)	0121181
'V' mount pole clamp (Large: 16 - 40mm span)	0121182
'V' mount wall plate	0121180

\* 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](mailto:info@viamed.co.uk)   Website: [www.viamed.co.uk](http://www.viamed.co.uk)



Part Number: 0092173  
Date: 05/13



BS EN ISO 9001:2008  
ISO 13485:2003

FS 28344 MD 78787

veterinary



# VM-2160

## Hand Held Pulse Oximeter

Designed with the most difficult conditions in mind

- For spot checking or constant monitoring of SpO<sub>2</sub> 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 SpO<sub>2</sub>, 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 SpO<sub>2</sub> 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.

**VIAMED**

# 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 SpO<sub>2</sub> 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



Long term monitoring and trending



VM-2160 OLED Display

## 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 rate provides information about 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 available for operational control
- The most modern technologies and energy-saving elements enable continued use of the device over several days
- Rapid data transfer using a standard USB interface
- Silicone protective cover included in the package
- Energy supply from standard AA alkaline batteries

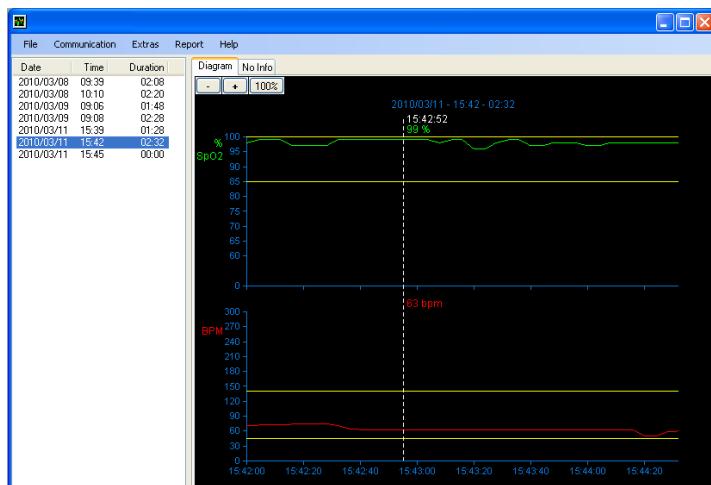


VM-2160 in Protective Cover





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.

## SpO<sub>2</sub> 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

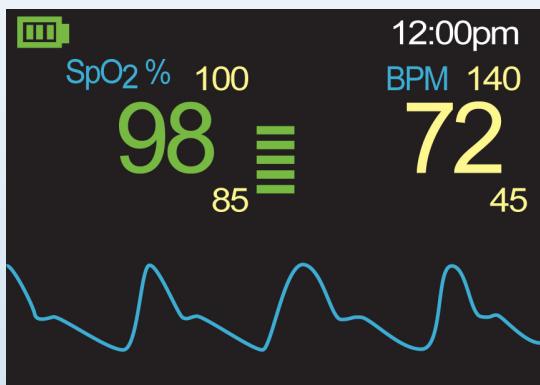


**Medium Lingual Clip**  
Part Number: 0025011



**Large Lingual Clip**  
Part Number: 0025012

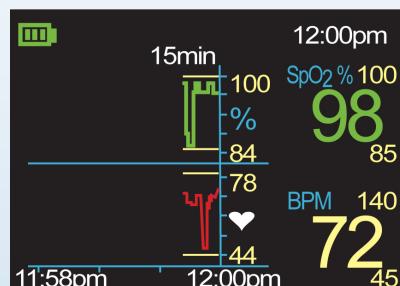
# Display Formats



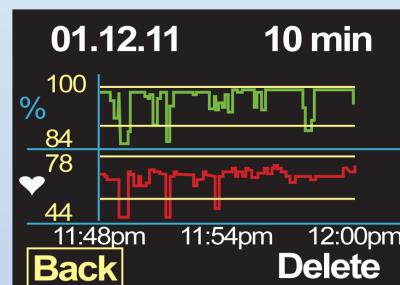
## Default Display



## Large Digit Display



## Short Term Trending Display



## Long Term Trending Display

# Mounting Options and Accessories



## Carrying Case



## Silicone Protective Cover



## Universal Mounting Plate



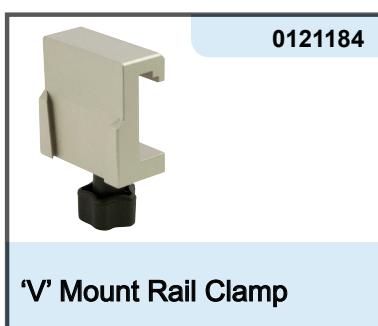
## Universal Mounting Clamp



## **'V' Wall Mount**



## **'V' Mount Pole Clamp Multi-Position**



## 'V' Mount Rail Clamp



## 'V' Mount Pole Clamp



## 'V' Mount Pole Clamp