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 emmitter	660nm, typ 3.5mW
Infra-red emitter	905nm, typ 3.5mW
Display	
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
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-adapter with female pole-mount thread (¼ - 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.

CE

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Part Number: 0092173
Date: 08/13

BS EN ISO 9001:2008
ISO 13485:2003

veterinary

VM-2160

Hand Held Pulse Oximeter

Designed with the most difficult conditions in mind

- For spot checking or constant monitoring of SpO_2 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_2, 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_2 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

Long term monitoring and trending

Standard Package

- VM-2160 Pulse Oximeter Monitor
- Reusable SpO_2 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

VM-2160 OLED Display

VM-2160 in Protective Cover

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

Actual Size

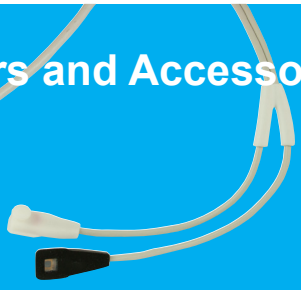
Powerful Pulse Oximetry PC Software

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 parrallel 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_2 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

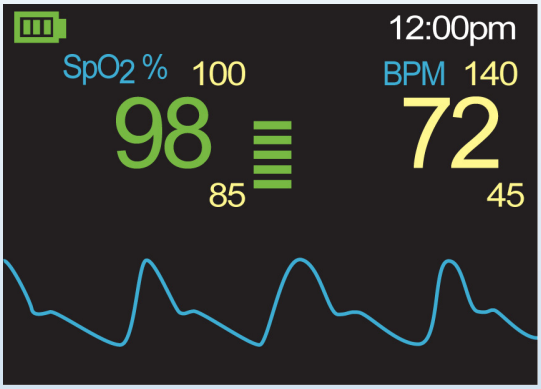
For use with Multi-site Y Sensor

Small Lingual Clip
Part Number: 0025010

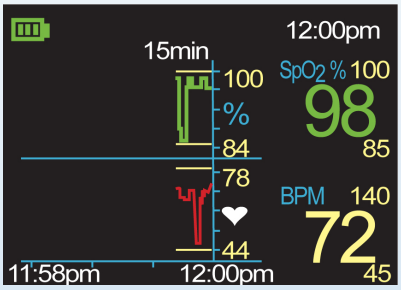
Medium Lingual Clip
Part Number: 0025011

Large Lingual Clip
Part Number: 0025012

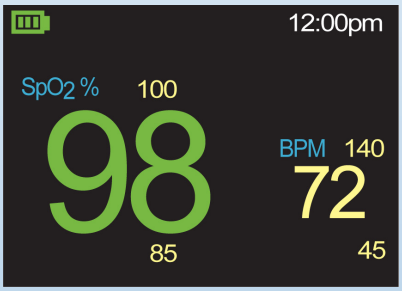
Display Formats



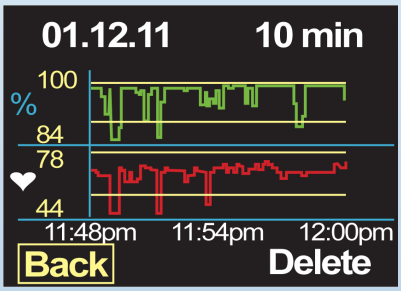
Default Display



Short Term
Trending Display



Large Digit Display



Long Term Trending Display

Mounting Options and Accessories

For use with VM-2160

0022170

- 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

Universal Mounting Plate

0121180

'V' Wall Mount

0121200

Universal Mounting Clamp

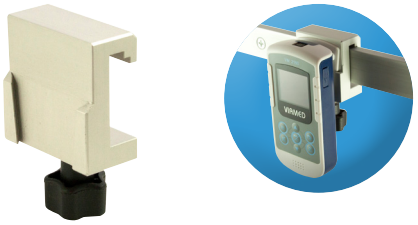
0121181

'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