

# pulse oximetry products



VIAMED



# VIAMED



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**VM-2160**  
Hand Held  
Pulse  
Oximeter

see page 3...

**Finger**  
Pulse  
Oximeters

see page 7...

**4000 Series**  
Pulse  
Oximetry  
Sensors

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**Pulse**  
Oximetry  
Accessories

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# VM-2160

## Hand Held Pulse Oximeters

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 display
- Robust, ergonomic design with durable silicone protective cover
- Includes a reusable soft silicone sensor\*
- Stores and restores up to 480 hours of trend data
- Adjustable high and low alarms
- Antibacterial keypad



VM-2160



VM-2160  
SMARTsat



The ergonomic VM-2160 hand held pulse oximeters have 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 at the bedside 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 VM-2160 can be used in a variety of applications, from use in hospitals, paramedic ambulances, clinics and dental surgeries - making this an extremely flexible and durable piece of equipment.

\* Please select from Soft Sensor (Adult or Paediatric), Finger Sensor, Silicone Wrap Sensor, Ear Sensor and indicate at the time of ordering. Autoclavable sensors are available for standard VM-2160, currently unavailable for the SMARTsat version.

## The VM-2160 offers a efficient and cost effective solution for spot monitoring or constant monitoring of SpO<sub>2</sub> and pulse rate

- For spot checking or constant monitoring of SpO<sub>2</sub> and pulse rate
- Includes a soft silicone sensor - \*other sensors can be specified
- Stores and restores up to 480 hours of trend data
- Adjustable high and low alarms

### VM-2160 Standard Package

- VM-2160
- Reusable adult silicone finger sensor\*
- Silicone protective cover
- PC review software
- USB data cable
- 3 x AA batteries

\* Please select from Soft Sensor (Adult or Paediatric), Finger Sensor, Silicone Wrap Sensor, Ear Sensor and indicate at the time of ordering. Autoclavable sensors are available.



**Long term  
monitoring  
and  
trending**

## Key features of the VM-2160 Hand Held Pulse Oximeters

- 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 language options 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
- Powered by standard AA alkaline batteries



VM-2160 Display



VM-2160 in Protective Cover



**Silicone Soft Sensor for  
VM-2160. Other types  
available on request**

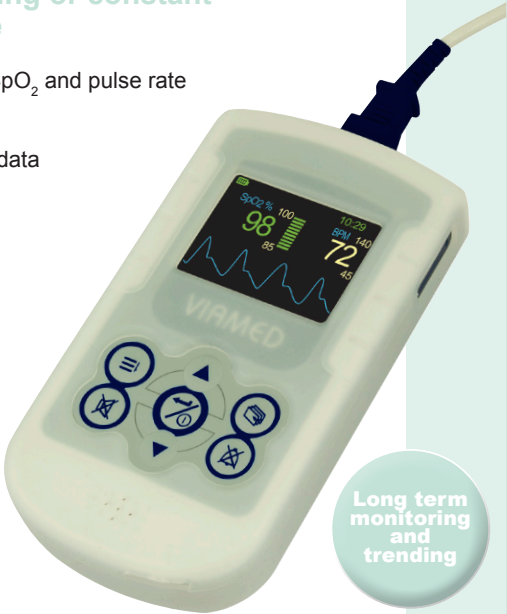
# The VM-2160 SMARTsat offers an efficient and cost effective solution for spot monitoring or constant monitoring of SpO2 and Pulse rate

- For spot checking or constant monitoring of SpO<sub>2</sub> and pulse rate
- Includes a SMARTsat soft silicone sensor -  
\*other sensors can be specified
- Stores and restores up to 480 hours of trend data
- Adjustable high and low alarms

## VM-2160 SMARTsat Standard Package

- VM-2160 SMARTsat Pulse Oximeter
- Reusable SMARTsat adult silicone finger sensor\*
- Silicone protective cover
- PC review software
- USB data cable
- 3 x AA batteries

\* Please select from Soft Sensor (Adult or Paediatric), Finger Sensor, Silicone Wrap Sensor, Ear Sensor and indicate at the time of ordering. Autoclavable sensors are available.



Hand Held Pulse Oximeters

## VM-2160 SMARTsat Hand Held Pulse Oximeter

SMARTsat has been calibrated within the range of 60 - 100 % SpO<sub>2</sub>.

SMARTsat A<sub>RMS</sub> in the SaO<sub>2</sub> ranges\*

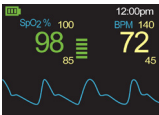
	100 - 60%	100 - 90%	90 - 80%	80 - 70%	70 - 60%
Silicone Sensors	1.77	1.64	1.78	1.71	2.42
Finger Clip Sensors	1.44	1.01	1.35	1.66	2.05
Silicone Wrap Sensors	1.74	1.24	1.53	1.92	3.04
Disposable Adult	2.32	1.55	2.2	2.55	3.67
Ear Sensors	2.46	1.44	1.68	3.52	3.27

\* OEM III

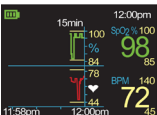


VM-2160 Display

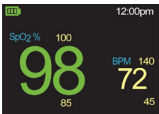
### Display Formats



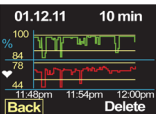
Default Display



Short Term Trending Display



Large Digit Display

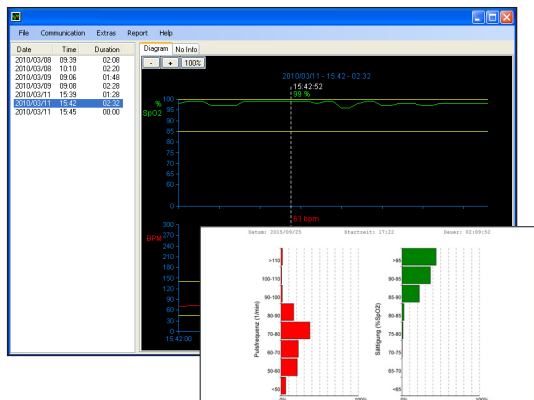


Long Term Trending Display



VM-2160 in Protective Cover

# 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.



## Applications

The VM-2160 with Silicone Finger Sensor is suitable for the following applications:

- Clinical Environments
- Rescue and emergency services
- Sleep studies
- Home care
- Long-term monitoring
- Stress testing



See page ?? for a wide range of:

- Carrying cases
- Mounting options
- Accessories
- Compatible Sensors

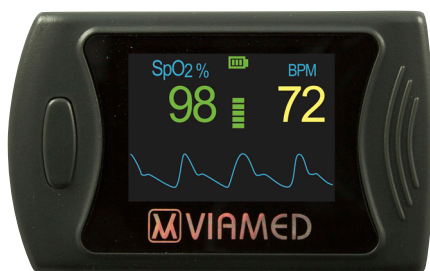


# VM-2101 Finger Oximeter

Fast and accurate measurement of SpO<sub>2</sub> and pulse rate, even in cases of low perfusion

- Display can be viewed in 4 rotations
- Large and clear, usable Pleth waveform
- Large digit display formats
- Colour coded signal quality and signal strength indicator
- Adjustable brightness; 6 levels
- Designed and type tested to ISO 9919:2005
- Clinical validation in accordance with ISO 9919:2005
- Accuracy  $A_{RMS} = 2.0\%, \pm 1 \text{ S.D.} = 1.86\%$

**High clinical accuracy and robust; ideal for hospital applications**



Actual Size

The VM-2101 has a low profile design and is extremely lightweight. The large, colour Organic LED display offers superb visibility in all lighting conditions, including direct sunlight, and the brightness can be adjusted to suit individual applications.

This durable and compact unit utilises 16 bit processing technology enabling a fast 'true reading' response, and facilitates low perfusion capabilities.

The VM-2101 is an extremely economical piece of equipment for the spot monitoring of SpO<sub>2</sub> and pulse rates and can be used in a variety of environments, from use in hospitals, emergency services, clinics and dental surgeries; through to spot-monitoring before, during and after exercise.

# VM-2103

## Finger Oximeter

Fast and accurate measurement of  $\text{SpO}_2$  and pulse rate, even in cases of low perfusion

- Display can be viewed in 4 rotations.
- Large and clear, usable Pleth waveform.
- Large digit display formats.
- Colour coded signal quality and signal strength indicator.
- Adjustable brightness; 6 levels.
- Designed and type tested to ISO 9919:2005.
- Clinical validation in accordance with ISO 9919:2005.
- Accuracy  $A_{\text{RMS}} = 2.0\%, \pm 1 \text{ S.D.} = 1.86\%$

**Suitable for  
hospital and  
emergency  
services  
applications**



Actual Size

The VM-2103 is encapsulated in soft durable silicone making it both comfortable and robust. The large, colour Organic LED display offers superb visibility in all lighting conditions, including direct sunlight, and the brightness can be adjusted to suit individual applications.

This durable and compact unit utilises 16 bit processing technology enabling a fast 'true reading' response, and facilitates low perfusion capabilities.

The VM-2103 is an extremely economical piece of equipment for the spot monitoring of  $\text{SpO}_2$  and pulse rates and can be used in a variety of environments, from use in hospitals, emergency services, clinics and dental surgeries; through to spot-monitoring before, during and after exercise.

# VM-2105

## Silicone Finger Oximeter

Incorporating the latest technology; a clear and bright colour OLED display encapsulated in a unique durable, soft silicone housing

- Display can be viewed in 4 rotations.
- Large and clear, usable Pleth waveform.
- Colour coded signal quality and signal strength indicator.
- Adjustable brightness: 6 levels.
- Designed and type tested to ISO 9919:2005.
- Clinical validation in accordance with ISO 9919:2005.
- Accuracy  $A_{RMS} = 1.519\%, \pm 1 \text{ S.D.} = 1.513\%$

**Premium  
oximeter  
ideal for  
Emergency  
Services  
applications**



**Actual Size**

The hygienic and easy to clean, soft silicone housing, of the VM-2105, offers superior comfort and fit, allowing for a more accurate and reliable reading, and with no hinge assembly to break this unit is extremely robust and able to withstand even the toughest of environments.

The VM-2105 is an extremely economical piece of equipment for the spot monitoring of  $SpO_2$  and pulse rate. It can be used in a variety of applications, from use in hospitals, emergency services, clinics and dental surgeries.

Utilising 16 bit processing technology the VM-2105 gives a fast 'true reading' response, even in cases of low perfusion.

# 4000 Series

## SpO<sub>2</sub> Sensors

Reusable and disposable pulse oximetry sensors and cables

- Manufactured using the latest technology and materials
- Quality and robust designs
- Reliable and accurate

### The 4000 Series includes:

- Finger sensors
- Soft silicone finger sensors
- Wrap sensors
- Ear sensors
- Disposable sensors
- Extension and adapter cables

Compatible for use with most original equipment manufacturers' pulse oximeters and patient monitors including:

- BCI
- CSI
- Datascope
- Datex
- GE
- HP/Philips
- Minolta
- Nellcor
- Nihon-Kohden
- Nonin
- Novamatrix
- Ohmeda
- Palco
- Sormedics
- Spacelabs
- Viamed



**Finger Sensor**



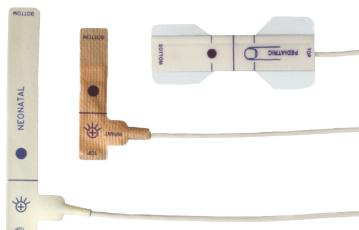
**Soft Silicone Sensor**



**Wrap Sensor**



**Ear Sensor**



**Disposable Sensors**

**BCI compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**CSI compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**Datascope compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

**Datex compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**GE compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**HP/Philips compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

**Minolta compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**Nellcor compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**Nihon-Kohden compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

**Nonin compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**Novametrix compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**Ohmeda compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

**Palco compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**Sensormedics compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

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**Spacelabs compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

**Viamed compatible**

<b>Part No.</b>	<b>Model No.</b>	<b>Sensor Type</b>	<b>Cable Length (m)</b>
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90
00?????	SF4001	Finger sensor	0.90

include smartsat sensors here also

# Pulse Oximetry Repair Service

A comprehensive repairs service is available from Viamed for most OEM sensors and cables.

For further details contact us on 01535 634542



0022178



Carrying Case

0022160



Silicone Protective  
Cover for VM-2160

0022190



Finger Oximeter  
Carrying Case - Black

0022191



Finger Oximeter  
Carrying Case -  
Orange

0022192



Finger Oximeter  
Carrying Case - Green

0022193



Finger Oximeter  
Carrying Case - Blue

0022171



Universal  
Mounting Plate\*

0121180



'V' Wall Mount

0121181



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

0121182



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

0121197



'V' Pole Mount Clamp  
Horizontal

0121184



'V' Mount Rail Clamp

0121200



Universal  
Mounting Clamp

0014890



Sensor Wraps  
Pack of 12

0021013



Posey Sensor Wrap  
Pack of 12 - 6554  
Also available in cases

0021018



Posey Sensor Wrap  
Paediatric  
Pack of 12 - 6554P  
Also available in cases

\*The universal mounting plate is required when using any of the mounting options shown.



# VIAMED

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Part Number: ???????  
Date: 12/16