

pulse oximetry products



VIAMED



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VM-2160
Hand Held
Pulse
Oximeter

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Finger
Pulse
Oximeters

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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_2 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
SMARTsat

European Research Funding

Europäische Fonds EFRE, ESF und ELER
in Mecklenburg-Vorpommern

The ergonomic VM-2160 hand held pulse oximeters have 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 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_2 and pulse rate

- For spot checking or constant monitoring of SpO_2 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.



VM-2160 Display

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 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 SpO₂ 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.



VM-2160 SMARTsat Hand Held Pulse Oximeter

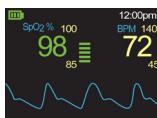
SMARTsat has been calibrated within the range of 60 - 100 % SpO₂.

SMARTsat A_{RMS} in the SaO₂ ranges*

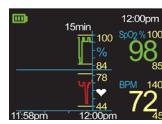
	100 - 60%	100 - 90%	90 - 80%	80 - 70%	70 - 60%
Silicone Sensors	1.77	1.64	1.78	1.71	2.42
Finger Clip Sensors	1.44	1.01	1.35	1.66	2.05
Silicone Wrap Sensors	1.74	1.24	1.53	1.92	3.04
Disposable Adult	2.32	1.55	2.2	2.55	3.67
Ear Sensors	2.46	1.44	1.68	3.52	3.27

* OEM III

Display Formats



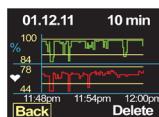
Default Display



Short Term Trending Display



Large Digit Display



Long Term Trending Display

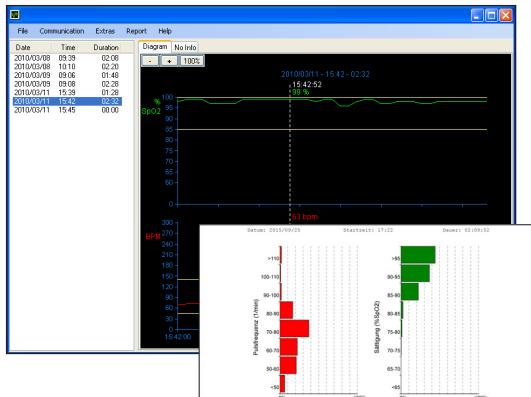


VM-2160 Display



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_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 $A_{\text{RMS}} = 2.0\%$, $\pm 1 \text{ S.D.} = 1.86\%$

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_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-2103

Finger Oximeter

Fast and accurate measurement of 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**



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 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 $A_{RMS} = 1.519\%$, ± 1 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 SpO₂ 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

SpO₂ Sensors

Reusable and disposable pulse oximetry sensors and cables

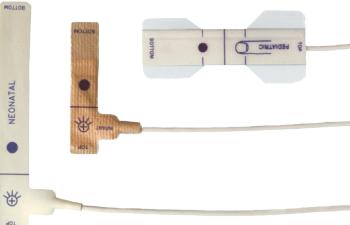
- Manufactured using the latest technology and materials
- Quality and robust designs
- Reliable and accurate

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
- Novametrix
- Ohmeda
- Palco
- Sensormedics
- Spacelabs
- Viamed



Disposable Sensors

BCI compatible

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

CSI compatible

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

Datascope compatible

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

Datex compatible

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

GE compatible

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

HP/Philips compatible

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

Minolta compatible

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Nellcor compatible

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Nihon-Kohden compatible

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Part No.	Model No.	Sensor Type	Cable Length (m)
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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

Novametrix compatible

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Ohmeda compatible

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Sensormedics compatible

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Spacelabs compatible

Part No.	Model No.	Sensor Type	Cable Length (m)
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

Part No.	Model No.	Sensor Type	Cable Length (m)
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

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.



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