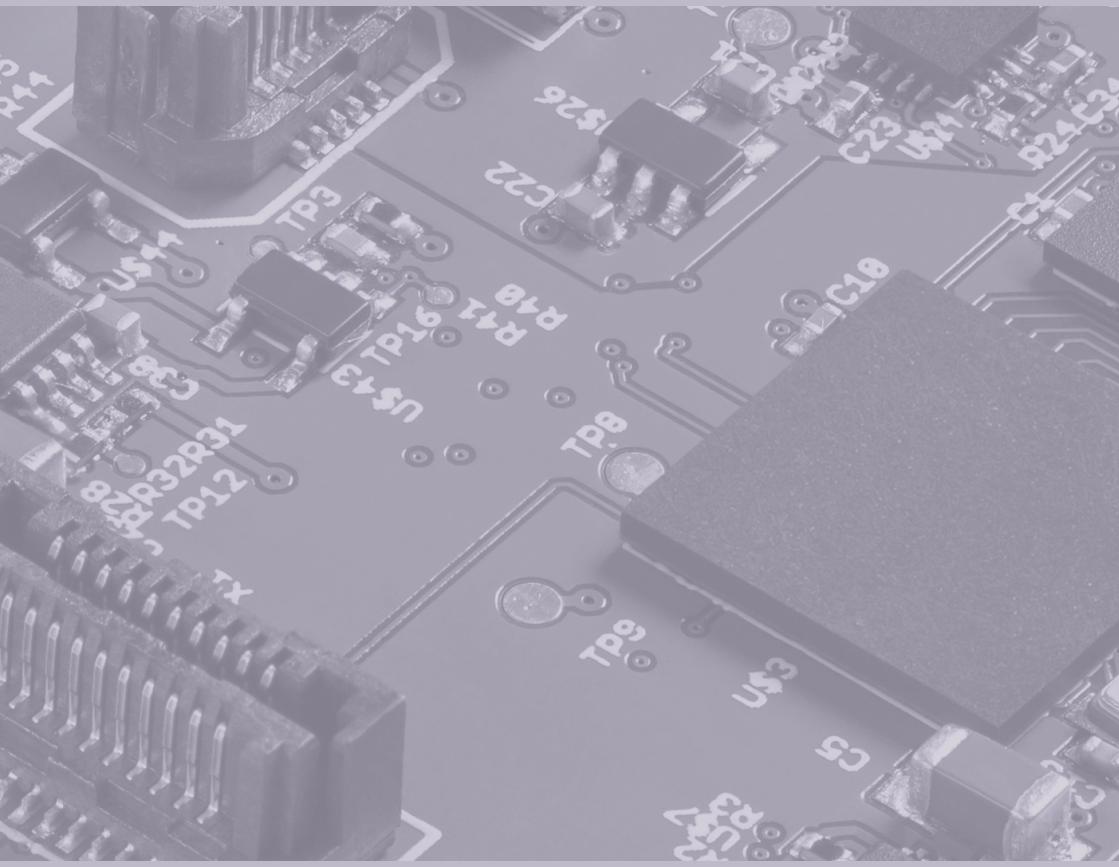
OEM products



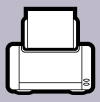
VIAMED

OEM solutions

adskahldjf

Contact Us

01535 634 542



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VIAMED

SMARTsat

High performance SpO_2 technology

see page 4...

Flowsensors

For flow measurement of gas delivered by anesthesia systems and ventilators

see page 8...

Temperature Probes

For accurate monitoring of body surface and core temperatures

see page 12...

Oxygen Sensors

for use with oxygen analysers, monitorsm anaesthesia systems, ventilators, incubartors and oxygen concentrators

see page 15...

Pulse Oximetry Monitors & Sensors

afkadfkandfkansdkfa

see page 18...

Pump Box

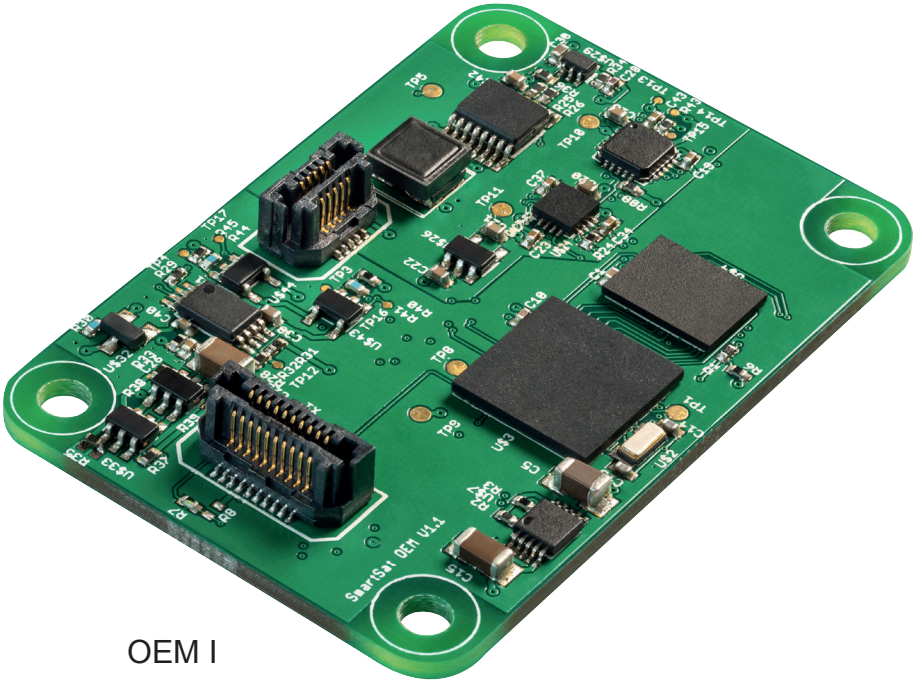
res

see page 21...

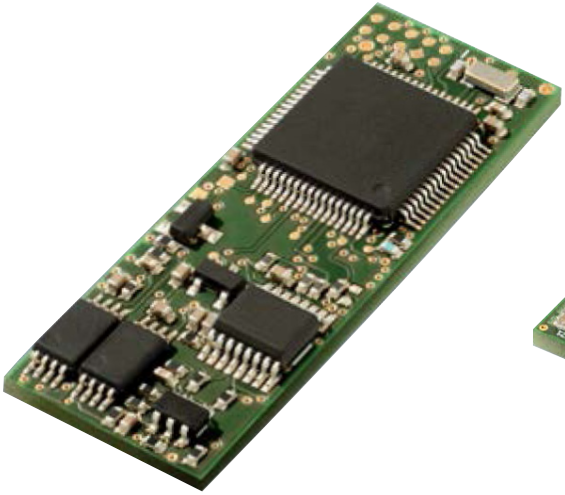
SMARTsat®

High performance SpO_2 technology

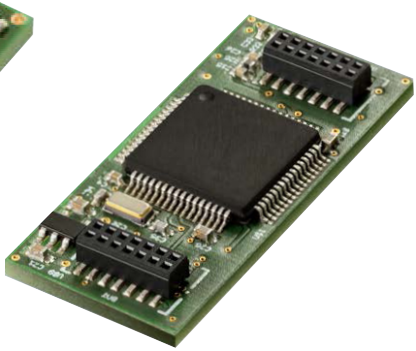
European Research Funding
Europäische Fonds EFRE, ESF und ELER
in Mecklenburg-Vorpommern



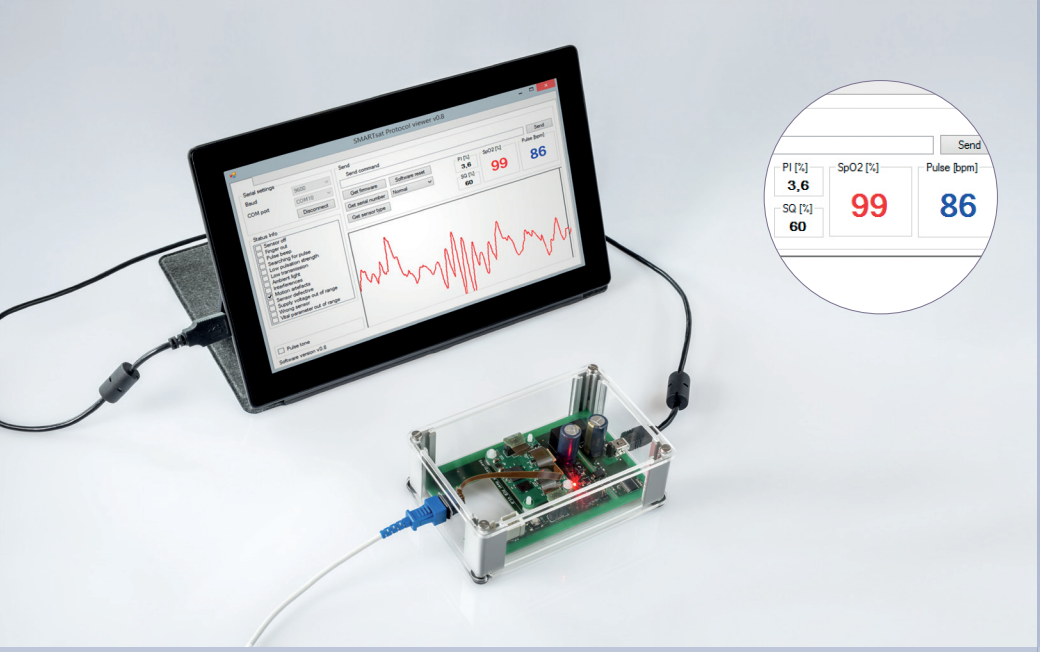
OEM I



OEM II



OEM III



SMARTsat technology – Now you have a choice!

The SMARTsat technology platform was developed over the last few years, in close cooperation with well-established research institutions and university hospitals.

The very latest and innovative signal processing technologies and algorithms enable precise measurements, even under very difficult physiological conditions. SMARTsat technology has extremely low power consumption requirements, and is a real alternative for OEM customers whom require high-end pulse oximetry solutions for their applications.

In accordance with ISO Standards, the approved pulse oximetry sensors are calibrated and evaluated against dyshemoglobin-free reference measurements, which were determined from CO oximeter data and do not contain saturation components of the hemoglobin fractions SaCO and SaMet.

SMARTsat has been validated within the range of 60 - 100 % SpO_2.

SMARTsat A_{RMS} in the SaO_2 ranges

	100 - 60%	100 - 90%	90 - 80%	80 - 70%	70 - 60%
Silicone Sensors	1.5	1.3	1.1	1.5	2.4
Finger Clip Sensors	1.2	1.0	1.0	1.2	2.0
Silicone Wrap Sensors	1.5	0.9	0.9	1.7	3.2
Disposable Adult	1.7	1.1	1.5	2.0	2.4
Ear Sensors	1.3	1.3	1.4	1.3	1.7

Robust, flexible and hygenic

Viamed provides a range of high quality and comfortable sensors that incorporate the very latest technology

Soft Silicone Sensors

Due to their robust design, the Soft Silicone Sensors are ideal for use in the tough environment of rescue services, emergency services and hospitals.
The Silicone Sensors from the 4000 series are manufacturered from premium materials and their design allows for effective high-level disinfection. This reduces the risk of nosocomial infection associated with surface-borne pathogenic microorganisms.
Available in Adult, Small Adult (Medium) and Paediatric sizes.

Finger Clip Sensor

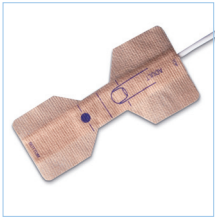
Finger Clip sensors are the ideal solution for ambulatory use, or for long-term monitoring. Advanced manufacturing technologies, materials and design elements are found in these sensors.

Silicone Wrap Sensor

Silicone Wrap sensors are for universal applications, for use on infants to adults. Wrap tapes are provided with mounting loops, enabling a simple fixation of the skin friendly wrap sensor.

Ear Sensor

High-quality ear sensor, which is comfortable and easy to use. The ear sensor has an additional sensor holder that prevents sensor movement and prevents it from being dislodged.



Disposable Sensors

Disposable sensors with Plaster Tape – the soft material is highly flexible and adaptable. Available in adult, paediatric, infant and neonatal sizes.

Typical Applications

SMARTsat is designed for integration into:

- High-End SpO_2 monitoring devices
- Patient monitors
- Transport monitors
- Sleep screening devices
- Defibrillators
- Home care monitors

... and more

Technical Data

Specification		OEM I	OEM II[5]	OEM III
Measurement Range	SpO_2	0 - 100 %	0 - 100 %	0 - 100 %
	Pulse Rate	20 - 300 bpm	20 - 300 bpm	20 - 300 bpm
	Perfusion	0.02 - 20 % (no motion)	0.02 - 20 % (no motion)	0.1 - 20 % (no motion)
Accuracy		60 - 100 % +/- 2 A_{RMS} (no motion)[1]		
	SpO_2	60 - 100 % +/- 3 A_{RMS} (motion condition)[2]		
		60 - 100 % +/- 2 A_{RMS} (low perfusion)[3]		
	Pulse Rate	20 - 300 bpm +/- 2 bpm (no motion)		

Power requirements

Input voltage	3.2 - 3.4 VDC	3.1 - 3.6 VDC	3.1 - 3.6 VDC
Average power consumption[4]	69 mW, 75 Hz sampling rate	65 mW, 75 Hz sampling rate	24 mW, 75 Hz sampling rate
Maximum power consumption[4]	≤ 86 mW, 75 Hz sampling rate	≤ 77 mW, 75 Hz sampling rate	≤ 29 mW, 75 Hz sampling rate

Environmental conditions

Operation	-25 to +60 °C
Storage	-40 to +70 °C
Relative humidity	15 % - 95 % (operation, non-condensing) 10 % - 95 % (storage, non-condensing)

Serial communication

Baud rate	9600 baud up to 230400 baud
Sampling rate	Adjustable to 75 Hz, 150 Hz, 300 Hz

Applied Standards

SMARTsat module OEM I, II, III	IEC 60601-1:2005 (3rd Ed); IEC 60601-1 (2nd Ed) IEC 60601-1-2:2014 (4th Ed); IEC 60601-1-2 (3rd Ed) EN ISO 80601-2-61:2011; EN ISO 9919:2009 ISO 14971:2007; IEC 60601-1-6:2010 ; IEC 60601-1-11:2010
SMARTsat sensors	ISO 10993-1:2009; ISO 10993-5:2009; ISO 10993-10:2010

Miscellaneous

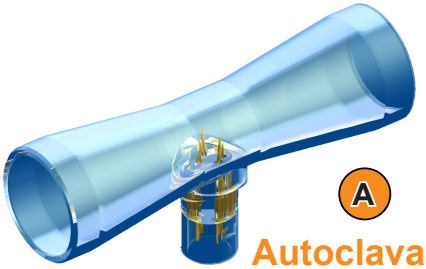
	OEM I	OEM II	OEM III
Dimensions (L x W x H)	50.8 mm x 35.1 mm x 6.6 mm	37.0 mm x 14.0 mm x 5.0 mm	31.0 mm x 14.0 mm x 5.0 mm
Part Numbers	0012700	0012710	0012720

[1] A_{rms}: ± 1 Arms represents approx 68% of measurements
[2] Tested with all motion patterns Index II
[3] Tested with Prosim 8 simulator
[4] Power consumption measured at a data transfer rate of 230 kBaud and 3.3 VDC. Reduced data transfer rates and/or higher sampling rates (150 Hz, 300 Hz) increases the power consumption.
[5] Available Q1/2016

SMARTsat® modules are designed to comply with 2nd and 3rd edition standards.
Specifications subject to change

SpiroTrue Flow Sensors

For flow measurement of gas delivered by anaesthesia systems and ventilators



A

Autoclavable

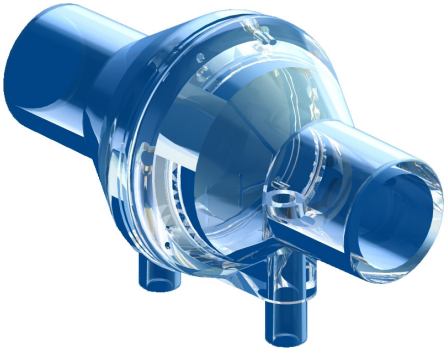
SpiroTrue A (PC)

Hot-wire anemoetric flow sensor

- Compatible to the Dräger SpiroLife flow sensor: Part no. **MK 01900**.
- For use with Dräger: Anemone, Apollo, AV1, Cato, Cicero, Dura, Eva, Evita, Evita 4, Evita XL, Fabius GS, Julian, PM8030, PM8035, PM8050, PM8060, Primus, Savina, Sulla...
- Can be disinfected.
- Supplied in a pack of five, packed individually in sterilizable packaging.
- Can be sterilized with EtO prior to use.
- Autoclavable at 134°C*, ≥ 100 cycles
  The sensor can be used as long as equipment calibration is possible.

* In accordance with the MAC (Microbiology Advisory Committee) manual, Part 1 Principles - 3rd edition

Viamed Part Number: 4310002



SpiroTrue H

Differential pressure flow sensor for use with Hamilton ventilators

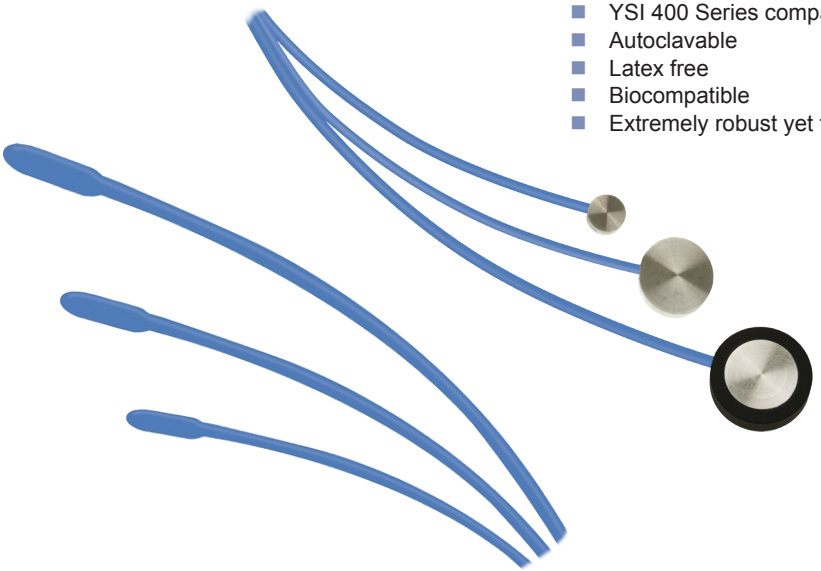
- Compatible to Hamilton Medical **H7400 Accu Tach** flow sensor.
- For use with Hamilton Medical: Aladdin, Amadeus, Arabella, C1, C2, Galileo, H72 VR1, H7200, MR1, Raphael, S1, T1, Veolar...
- SpiroTrue H is supplied in a pack of six, packaged individually in sterilizable packaging with 2m dual lumen sensor tubing.

Viamed Part Number: 4310003

400-AC Autoclavable Temperature Probes

For accurate monitoring of body surface and core temperatures

- YSI 400 Series compatible
- Autoclavable
- Latex free
- Biocompatible
- Extremely robust yet flexible



6.35mm (1/4”)
Jack (mono)

6.35mm (1/4”)
Jack (mono)
right angled

Hewlett
Packard/
Philips

Siemens

The complete rnage of autoclavable temperature probes for accurate measurement of body surface & core temperatures in neonates, paediatrics and adults.

The 400-AC Series includes temperature probes compatible to the YSI 400 series as well as the other leading manufacturers including Siemens, Hewlett Packard and Philips.

Oxygen Sensors

For use with most oxygen analysers, oxygen monitors, anaesthesia systems, ventilators, incubators, oxygen concentrators...

- Sensors that utilize the latest technology
- High performance
- Reliable and accurate

sdfgsdfgsdfg

Oxygen Monitors

4000 Series
SpO_2 Sensors

Reusable and disposable pulse oximetry sensors and cables

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

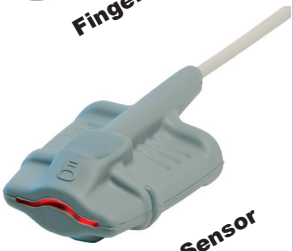
The 4000 Series includes:

- 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:

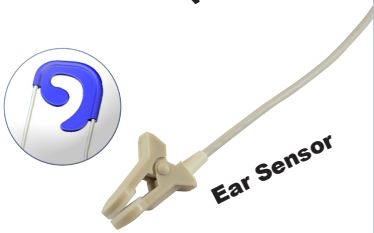
- BCI
- CSI
- Datascope
- Datex
- GE
- HP/Philips
- Minolta
- Nellcor
- Nihon-Kohden
- Nonin
- Novametrix
- Ohmeda
- Palco
- Sensormedics
- Spacelabs
- Viamed

Finger Sensor

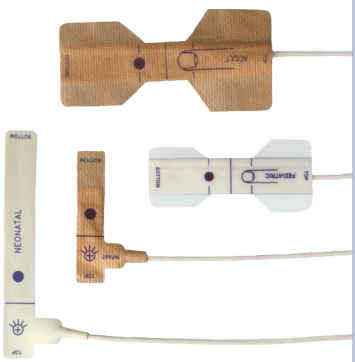


Soft Silicone Sensor

Wrap Sensor



Ear Sensor



Disposable Sensors

Pump Boxes

VIAMED

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Part Number: ???????
Date: 03/16