

## Vamos/Vamos *plus* Anesthetic gas monitor

Designed to grow with your needs. Vamos has the flexibility to meet your requirements both now and in the future. The Vamos can be configured with CO<sub>2</sub> and SpO<sub>2</sub> monitoring and upgraded in the future to include monitoring for all 5 anesthetic agents and N<sub>2</sub>O. The upgrade option can easily be installed on site to minimize any disruption.



The Vamos can be configured to meet the following three specifications:

- CO<sub>2</sub> and SpO<sub>2</sub>
- Anesthetic agents, CO<sub>2</sub> and N<sub>2</sub>O
- Anesthetic agents, CO<sub>2</sub>, N<sub>2</sub>O and SpO<sub>2</sub>

Vamos *plus* offers automatic identification of the anesthetic agent and dual agent display when two agents are used. Vamos *plus* can be configured to meet the following two specifications:

- Anesthetic agents, CO<sub>2</sub> and N<sub>2</sub>O
- Anesthetic agents, CO<sub>2</sub>, N<sub>2</sub>O and SpO<sub>2</sub>

### FLEXIBILITY

The SpO<sub>2</sub> option for the Vamos uses proven Nellcor® technology. This ensures compatibility with a wide range of pulse oximetry sensors and accessories. An optional battery backup is available for the Vamos, enabling the monitor to operate independently of the main power supply for at least an hour.

### INNOVATION

At the heart of the Vamos is a new gas sensor developed by Dräger which incorporates the very latest in innovative micro-optic technology. Because this sensor has no moving parts, it is particularly robust and reliable with just a small pump to maintain a constant flow of 200 mL/min for the sample gas. The sensor's performance reflects Dräger's core competence in infrared gas-detection technology with a design commitment to long-life components and quality. The latest innovation in gas measurement technology has been integrated in Vamos *plus*. Anesthetic agent measurement and dual agent gas measurement is now possible with Vamos *plus*.

The Vamos anesthetic gas monitor is a compact, flexible solution to meet your respiratory gas monitoring needs. As your monitoring requirements change, the Vamos can be reconfigured to meet them, thereby reducing the risk of premature obsolescence. In addition to flexible design, the Vamos provides excellent long-term value through the use of the latest solid-state optical technology.



Vamos *plus*



New Waterlock

### ERGONOMICS

Vamos is much more than just a flexible, affordable monitor. Its design fits into the current working environment. A critical element of good monitoring is having the right information in the right place. The compact dimensions of the Vamos allow the monitor to be optimally positioned within the working field.

- A variety of attachment options including specially designed GCX arms and brackets, as well as a specially designed solution for Dräger's Fabius family of anaesthesia devices, help to optimize your workplace design. The GCX arm can also be attached to a wall mounted standard rail.
- A high-contrast electroluminescent display ensures that the monitored data is clearly visible even from acute angles
- To further enhance ease of use, the Vamos features Dräger's proven user interface with a self-explanatory menu-guided operation. This intuitive system eliminates the need for time-consuming training while the rotary knob and function keys enable users to quickly familiarize themselves with the operation of the Vamos.

### A SAFE INVESTMENT

The Vamos provides a clear financial advantage. By empowering the customer to configure the monitor with just those monitoring parameters that are needed, Vamos reduces the initial cost while providing a secure investment due to the ability to upgrade the platform in the future.



D-9375-2009

Dräger Vamos on Dräger Fabius Tiro

## TECHNICAL DATA

### General specifications

Measured parameters	CO <sub>2</sub> , N <sub>2</sub> O, 5 anesthetic agents SpO <sub>2</sub> (Nellcor)
Gas measurement	breath to breath resolution
Rise time	< 500 ms (agents), < 350 ms (CO <sub>2</sub> )
Principle of measurement	advanced infrared technology, sidestream sample principle
Accuracy	as per ISO 21647
Sample flow rate	200 mL/min

### Display

High-contrast amber electroluminescent display with excellent vertical and horizontal viewing angles.	
Display size	5" diagonal 4.25" x 2.28" (127 mm diagonal 108 x 58 mm)
Graphic display of CO <sub>2</sub> waveform	
Numeric display	Fractional inspiratory concentration (Fi) of CO <sub>2</sub> , N <sub>2</sub> O and of selected agent (Vamos) or identified agent (Vamos plus)  End-tidal concentration (Fet) of CO <sub>2</sub> , N <sub>2</sub> O and selected agent (Vamos) or or identified agent (Vamos plus)
Oxygen saturation (SpO <sub>2</sub> )	ISO 9919
Pulse rate	

### Technical features and performance data

Dimensions WxHxD	9.4" x 6.5" x 6.5" (240 x 166 x 165 mm)
Weight	2.4 kg including the internal battery
Power consumption	peak consumption in the warm-up phase < 55 W during operation < 45 W
Operating voltage	100 - 240 V, 50/60 Hz external power pack with country-specific connections
Battery backup operation (optional)	> 1 hour
Outputs	RS 232 Medibus RS 232 (only for service) Sample gas outlet (for sample gas supply to anesthetic gas scavenging system)

**HEADQUARTERS**

Draegerwerk AG & Co. KGaA  
Moislinger Allee 53–55  
23558 Lübeck, Germany

[www.draeger.com](http://www.draeger.com)

**REGION EUROPE CENTRAL  
AND EUROPE NORTH**

Draeger Medical GmbH  
Moislinger Allee 53–55  
23558 Lübeck, Germany  
Tel +49 451 882 0  
Fax +49 451 882 2080  
[info@draeger.com](mailto:info@draeger.com)

**REGION EUROPE SOUTH**

Draeger Médical S.A.S.  
Parc de Haute  
Technologie d'Antony 2  
25, rue Georges Besse  
92182 Antony Cedex, France  
Tel +33 1 46 11 56 00  
Fax +33 1 40 96 97 20  
[d1mfr-contact@draeger.com](mailto:d1mfr-contact@draeger.com)

**REGION MIDDLE EAST, AFRICA,  
CENTRAL AND SOUTH AMERICA**

Draeger Medical GmbH  
Branch Office Dubai  
Dubai Healthcare City, P.O. Box 505108  
Dubai, United Arab Emirates  
Tel + 971 436 24 762  
Fax + 971 436 24 761  
[contactuae@draeger.com](mailto:contactuae@draeger.com)

**REGION ASIA / PACIFIC**

Draeger Medical  
South East Asia Pte Ltd  
25 International Business Park  
#04-27/29 German Centre  
Singapore 609916, Singapore  
Tel +65 6572 4388  
Fax +65 6572 4399  
[asia.pacific@draeger.com](mailto:asia.pacific@draeger.com)

**REGION NORTH AMERICA**

Draeger Medical, Inc.  
3135 Quarry Road  
Telford, PA 18969-1042, USA  
Tel +1 215 721 5400  
Toll-free +1 800 437 2437  
Fax +1 215 723 5935  
[info.usa@draeger.com](mailto:info.usa@draeger.com)

**Manufacturer:**

Draeger Medical GmbH  
23542 Lübeck, Germany  
The quality management system at  
Draeger Medical GmbH is certified  
according to ISO 13485, ISO 9001  
and Annex II.3 of Directive 93/42/EEC  
(Medical devices).