



OVG-4™

OWLSTONE VAPOR GENERATOR

WHAT IS IT?

The Owlstone OVG-4 is a system for generating trace concentration levels of chemicals and calibration gas standards. It is easy to use, cost-effective and compact and produces a very pure, accurate and repeatable output.

The very precise control of concentration levels is achieved using permeation tube technology, eliminating the need for multiple gas cylinders and thus reducing costs, saving space and removing a safety hazard. Complex gas mixtures can be accurately generated through the use of multiple tubes.



The OVG-4 is an ideal tool for numerous applications, ranging from calibration of explosive detectors in military and homeland defense to validation of personal monitors in industrial health and safety.

OVG-4 APPLICATIONS

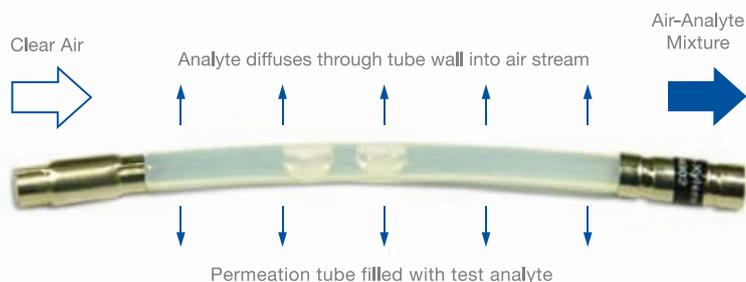
Owlstone's OVG-4 vapor generation system is a cost-effective solution for any application requiring accurate, precise and safe gas generation. Examples include:

- Testing of warfare agent detection instruments
- Calibration of explosive detectors in homeland security applications
- Detector validation in industrial health and safety
- Calibration of environmental emissions monitoring sensors
- Generation of complex blended gas mixtures
- Sensor and instrument development and testing
- R&D and general laboratory use

Please contact a member of the Owlstone sales team if you have any applications questions.

HOW DOES A PERMEATION TUBE WORK?

Permeation tubes enable the generation of vapor from solid and liquid sources, as well as gases. A small quantity of the chemical is sealed inside a short length of plastic tubing. The tubing wall serves as a permeable membrane separating the pure analyte from the background matrix gas flow. The analyte permeates at a constant rate through the tubing wall, creating a very stable concentration of analyte vapor in the matrix gas flow. Mixtures are created using multiple tubes.



Our OVGs have been reliable, easy to use and have been indispensable in providing accurate and precise flow of vapor

SELEX Sensors and Airborne Systems Ltd

BENEFITS

- High number of available analyte compounds, including solids and liquids as well as gases
- Easy generation of multi-component mixtures using combinations of tubes
- Cost savings by elimination of multiple expensive gas cylinders
- Reduced risk of exposure to dangerous chemicals due to small quantities used
- Fast and easy sample replacement
- Elimination of hazards associated with high pressure cylinders
- Quick and easy to set up and generate blended gas mixtures
- Adjustable concentration levels from ppm to ppb
- High accuracy and precision, even at the lowest concentrations
- Superior long term stability and repeatability*
- Portable, with compact footprint
- Easily integrated with the Owlstone Humidity Generator (OHG) for realistic environmental testing

**Owlstone offers an optional service for regular validation and instrument calibration*

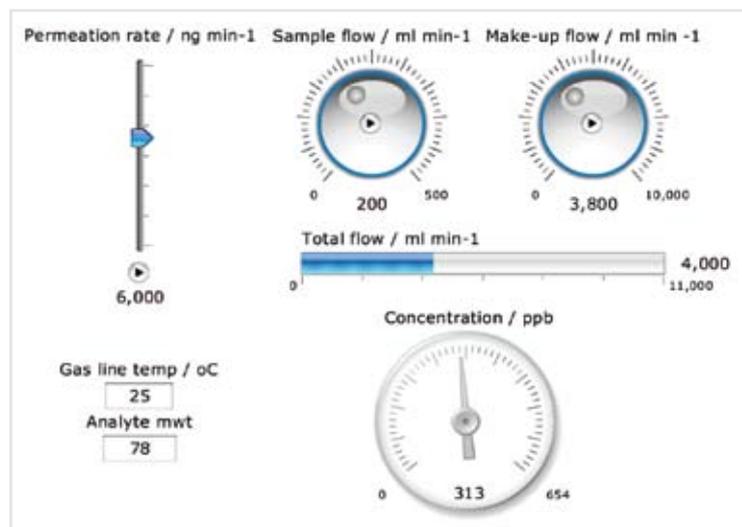


As we develop sensors responding to ppb concentrations of VOCs, our Owlstone eight-channel OVG-4 gas generators have been invaluable with their excellent stability, and are significantly more cost effective than the competition.

Alphasense

CONCENTRATION CALCULATION SOFTWARE

The OVG-4 is supplied with an easy-to-use concentration calculator to determine operating and calibration points.



Screen shot of concentration calculator

COMPLETE CHEMICAL AND ENVIRONMENTAL TESTING

Owlstone also offers an integrated test platform incorporating a user-specified number of OVG-4 channels, a humidity generator (OHG) and a flow controller. Please see the relevant literature or contact a member of the Owlstone sales team for further information.



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TECHNICAL SPECIFICATION

Technology	Permeation tube
Inlet	1/4" Swagelok quick connector
Outlet	1/8" Swagelok compression fittings
Output concentrations	ppb-ppm
Instrument air	Regulated Air / Nitrogen at 40psi Free from impurities, -35°C dew point
Sample flow	50-500 ml/min ⁻¹
Split flow	0-1000 ml/min ⁻¹
Oven warm-up	15min to 100°C (stable ± 0.1°C)
Permeation oven temperature	35-100°C
Permeation oven diameter	10mm
Permeation oven length	180mm
Power Supply	24 VDC
Current	6A
Dimensions	H 262mm, W 142mm, D 260mm
Weight	4.55kg
Communications Interface	RS-485