



Model O2iM UltraFlow Series – Multi-Point Oxygen Deficiency Monitor for High-Flow Sampling

The Model O2iM UltraFlow Series is a high-performance, multi-port oxygen deficiency monitor, designed for fast, accurate, and reliable oxygen monitoring across multiple locations. With high-flow sampling capabilities, even if the sample points are further away, the UltraFlowUno and UltraFlowDuo models ensure fast and reliable oxygen monitoring. An internal multiplexer allows for multi-location sampling, while automated calibration reduces maintenance needs. These features make the UltraFlow series a strong choice for laboratories, industrial facilities, and other critical environments.



Features

Multi-Point Sampling for Broader Coverage

Both UltraFlow models feature four-port sampling, allowing a single analyzer to monitor multiple locations simultaneously. This reduces the need for multiple units, lowering installation and maintenance costs while improving overall facility safety.

High-Flow Sampling for Faster Oxygen Deficiency Detection

The UltraFlow Series incorporates high-flow pumps, providing rapid sampling across greater distances. This ensures faster detection of oxygen displacement in large or hazardous areas, minimizing response times and improving workplace safety.

Advanced Environmental Compensation for Accurate Readings

Built-in pressure, temperature, and gas cross-sensitivity correction ensures that oxygen readings remain stable and accurate, even under changing environmental conditions. This prevents false alarms and maintains reliable monitoring.

Automated Calibration for Maintenance-Free Operation

The O2iM is equipped with an automatic/programmable calibration system, reducing the need for routine maintenance and eliminating manual calibration downtime. The solid-state sensor is designed for long-term reliability, further minimizing operational costs and disruptions.

Seamless Integration with Safety & Building Systems

Both models are designed to integrate effortlessly into facility-wide safety networks, featuring:

- User-programmable high and low alarm levels
 - Multiple alarm outputs, including 100dB horn and red alarm light (optional blue Xenon light)
 - Five standard relays for system warnings and critical alerts
 - RS-232/485 Digital Output and 4-20mA analog output for connection to HVAC controls, automatic dialers, and external monitoring systems
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Industrial-Grade Durability & Hazardous Area Compliance

Built for demanding environments, the Model O2iM features a NEMA 4X/IP66-rated enclosure for weatherproof and dustproof protection. Optional Class 1 Div. 2 and Class 2 Div. 2 hazardous area purging is available for use in regulated industrial and laboratory settings.

Features

Item # 07-0608 - Model O2iM UltraFlowUno – High-Flow Sampling with Backup Pump

The UltraFlowUno features:

- One high-flow pump for primary sampling.
 - One backup low-flow pump for redundancy, ensuring continuous monitoring in case of pump failure.
 - Internal multiplexer to cycle through four sample lines simultaneously.
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Item # 07-0608 - Model O2iM UltraFlowDuo– Dual High-Flow Sampling for Maximum Speed

The UltraFlowDuo features:

- Two high-flow pumps for increased sampling speed and redundancy.
 - Simultaneous multi-location sampling, ideal for large facilities and critical environments.
 - Internal multiplexer to monitor four separate locations without delay.
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UltraFlow Compression Fittings (Optional Upgrade)

For facilities requiring secure gas connections, the UltraFlow Series offers an optional upgrade to stainless steel Swagelok compression fittings:

- Four sample and calibration ports – 1/8" OD.
 - Return line – 1/4" OD.
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Options or Accessories



Blue Xenon Light,

Replace the existing red light assembly with a blue lens that incorporates a xenon strobe. Ensure that the new assembly meets NEMA 4X standards for environmental protection, providing durability and reliability in various conditions. This upgrade will enhance visibility while maintaining compliance with safety and performance requirements.

Remote Display



Your safety is assured when you have both local and remote indication of oxygen deficiency. Oxigraf offers advanced communication capabilities with the Safety Monitor giving you options in setting up your oxygen alarm system.

- RS-232 & RS-485 (Modbus) communication on our Enhanced Relay Board option
- Sealed Box multi-channel status indicator.
- Hazardous Area LED multi-color status indicator.
- Control Room LED multi-light status indicator.
- Rack-Mount LED multi-light status indicator.



Z-Purge

The O2iM unit features a Z-Purge system for use in Class 1 Div 2 hazardous areas, requiring a nitrogen gas source for inerting. It includes a purge indicator and gas regulator with remote status output. Additionally, the OxiPurge option allows for enclosure purging in non-hazardous situations to prevent contamination and maintain dryness, with a VFD display to notify if the purge is lost.

Remote Indicator



Wall mount status indicator in 8.7" high x 3.6" wide white ABS with 90 db at 1 meter sounder. Indoor and Outdoor use. NEMA-4X rated. Four-color 50,000 hour LEDs, red for Alarm, amber for Fault, blue for Calibration Recommended, green for System OK.

Accessories



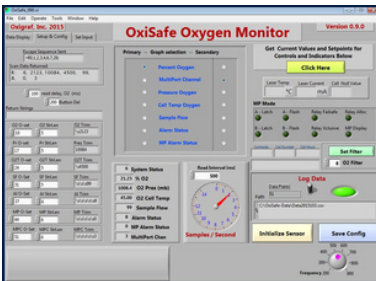
Calibration Kit

Two Regulator Valves, two tanks of calibrating gases (21.00 and 99.99% +/- 0.05%) with Cal Kit Tubing Assembly and hard plastic carry case. (35 Liter bottles: approx 100 calibrations).



Sensor Inlet Filter

PTFE moisture barrier/dust barrier for sensor, no fittings . (Package of 5). 25MM (package of 1)



OxiSafe Software

Oxisafe is a control and status monitoring application for the Oxigraf Model O2iM Oxygen Deficiency Monitor. Useful in control room applications, Oxisafe provides a complete remote monitoring and control suite for the single or multiple O2iM units. Oxisafe provides a graphical interface for displaying O2 levels, unit status, and control of the O2iM units from a remote location over the RS-232/485 interface.

Technical Data

Model O2iM UltraFlow Series – Multi-Point Oxygen Deficiency Monitor for High-Flow Sampling

Measurement Performance	
Sample Ports	Standard: Four (4)
Measurement Range	5-100%
Accuracy	±0.5%
Cross Sensitivity	0.2% (XC mode)
Response Time	500 ms at 200 ml/min flow rate, additional low pass filtering programmable.
Ambient Temperature (Operating)	-10 to 50 °C 14 to 122 °F
Ambient Temperature (Storage)	-20 to 60 °C -2 to 140 °F
Gas Inlet Temperature	-10 to 50 °C 14 to 122 °F
Gas Pressure	750 to 1150 mbar
Humidity	0 to 95%, non-condensing
Warm-up for Full Accuracy	10 minutes
Filter (Inlet)	0.45 micron Hydrophobic PTFE inlet filter blocks any condensates.
Pump Sampling Rate	UltraFlow Model Effect: response time is optimized to keep delays under 60 seconds for long tubing runs (up to 100 feet). Time to Pull a Full Sample: ~1 second per channel (at 150 ml/min)
User Interface	
Display Resolution	0.1% O ₂
Display	16 x 2 character VFD, 8 mm character size
Strobe	Red lens flashing strobe
Horn	100 dB
Enclosure	NEMA 4X rated non-metallic box with Lexan window, wall mounted.
Electrical Specifications	
Power Requirements	100 to 230 VAC, 50/60 Hz, 50 watts maximum (optional 20-32 VDC, 1.4A max) Voltage (AC)- 100 to 230 V
External Power Supply	
Mechanical Specifications	
Dimensions (W x H x D)	9.8 x 11.8 x 6.3 in 250 x 300 x 160 mm (Excluding horn, light, fittings.)
Weight Instrument	Instrument 8 lbs (3.2 3Kg)

