

MSA Gas Detection System



Oxygen Monitoring in Nitrogen; Blanketing (Purging) Applications



Application

Oxygen monitoring for nitrogen blanketing applications is most commonly found in the pharmaceutical, chemical, and other industries where flammable solvents are used in manufacturing facility storage processes. This gas detection system is designed to monitor oxygen levels in vessel or equipment headspace during nitrogen blanketing (purging).

Oxygen is a required ingredient for fire or explosion. Properly purging headspace with nitrogen will reduce oxygen levels to concentrations too low to support flammable vapor combustion. Oxygen-level monitoring is critical to help ensure sufficient nitrogen purge; both 0-25% and 0-10% range oxygen sensors are available.

Batch production sites have the greatest need for ensuring proper vessel and equipment blanketing between campaigns and product change-outs. Continuous manufacturing sites also require inert tank blanketing monitoring during planned shutdowns and tank maintenance.

Solution & product description

- Ultima® XE Gas Monitor with extractive sample draw and associated field-replaceable flow components mounted on a metal panel.
- MSA's flow panel system provides 0-10/25% oxygen inert tank blanketing monitor using electrochemical technology with solvent-tolerant cell.

Features include:

- Air or nitrogen aspirator, eliminating the need for electric sample pumps
- Upstream cooling coil allows solvent condensate to drain back to vessel
- Coalescing filter with automatic drain prevents liquid entrainment from reaching gas monitor
- Field-adjustable flow meter
- Low-flow switch with remote indication via contact closure
- Stainless steel flow component construction
- Manual valve for easy calibration
- Engineered system drawings
- Options for wall-mounted fiberglass or stainless steel enclosure; additional 0-100% LEL gas monitor for tank/vent hydrocarbon monitoring

Note: this document is a representative product description and its possible applications. Contact MSA Custom Products at customproducts@MSAnet.com for unit customization information.

Specifications

Temperature range:	-20° to +50° C, -4° to +122° F
Operating pressure:	-1 to +1 psig
Flow rate:	3 scfh
Power:	120 VAC
Signal output:	4-20 mA, HART or Modbus RTU
Relay contacts:	Three (3) rated 5 amp @ 125 VAC
Hazardous area rating:	NEC Class 1, Division 1 and 2, Groups B, C & D
Flow panel dimensions:	18" H x 25" W

Note: this bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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