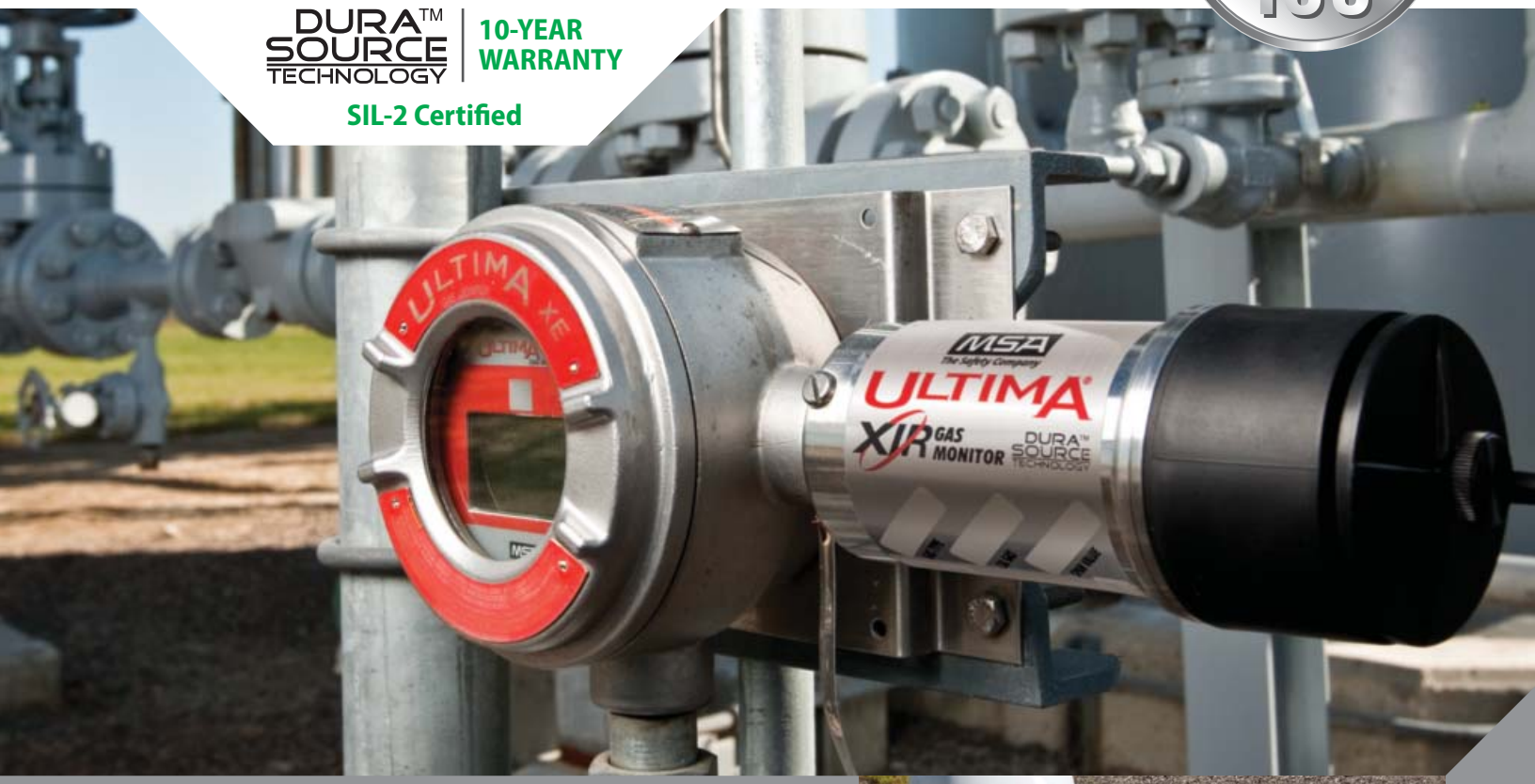
Ultima® XIR **Gas Monitor**

Infrared technology for combustible gas detection

DURA™ SOURCE TECHNOLOGY | **10-YEAR WARRANTY**

SIL-2 Certified



The Ultima XIR Gas Monitor is a microprocessor-based, infrared point gas detector for continuous monitoring of combustible and carbon dioxide gases and vapors. Designed around a rugged, 316 stainless steel enclosure, the Ultima XIR Monitor has multiple entries for maximum flexibility.

Ultima XIR Monitor operation is based upon dual-wavelength, heated-optics technology providing definitive compensation for temperature, humidity, and aging effects. IR technology offers excellent long-term stability, eliminates the need for frequent calibrations, and reduces overall cost of ownership.

- DuraSource Technology offers improved IR sensor life
- Field-selectable algorithms for a variety of hydrocarbon-based gases
- 4-20 mA, HART and Modbus (X^3 Technology) output
- No-gas calibration; zero adjustment meets requirement for full calibration
- Designed without sintered disk for optimum performance in harsh, offshore environments
- No sensor life reduction from gas exposure and operates in extended temperature ranges
- Fail-to-safety operation
- Immune to poisoning

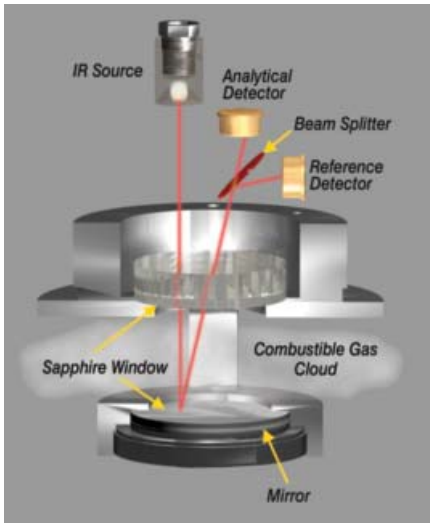
Because every life has a ***purpose...***

Principles of IR Technology

The Ultima XI Gas Monitor uses an electronically modulated infrared energy source and two detectors that convert infrared energy into electrical signals. Each detector is sensitive to a different range of wavelengths in the spectrum's infrared portion.

The source emission is directed through a main enclosure window into an open volume. A mirror at the end of this volume, protected by a second window, directs energy back through the main enclosure window and onto the detectors.

Gas presence in the open volume will reduce the source emission intensity reaching the analytical detector but not the source emission intensity reaching the reference detector. The microprocessor monitors the ratio of these two signals and correlates this ratio to a %LEL combustible reading.



Specifications		
GAS TYPES AND RANGES	Combustible gases & vapors; 0-100% LEL CO_2 0-5% and 0-2% by volume, 0-5000 ppm	
TEMPERATURE RANGE	-40°C to +60°C (-40°F to +140°F)	
STABILITY	± 2% full scale/year	
REPEATABILITY	± 2% full scale	
ACCURACY	**Combustible** ± 2% full scale (≤ 50% LEL) ± 5% full scale (> 50% LEL)	**CO_2** ± 3% full scale, 0-2%, 0-5% ranges ± 5% full scale, 0 - 0.5% range
RESPONSE TIMES	**Combustible** t90 <2 Sec —	**CO_2** t90 < 6 Sec t50 < 3 sec
HUMIDITY	0%-95% RH, non-condensing	
SENSOR WARRANTY	10 years for IR source	
POWER INPUT	10-30 VDC, 5 watts	
CURRENT DRAW	290 mA maximum @ 24 VDC	
WIRING REQUIREMENTS	3-wire	
SIGNAL OUTPUT	4-20 mA 3-wire current source	
CONDUIT ENTRIES	One entry, ¾" NPT (19.05 mm) with optional conduit	
PHYSICAL WEIGHT DIMENSIONS	316 stainless steel 6 lbs. (2.7 kg) 2.5" dia. x 8" long (64 x 203 mm)	
APPROVAL RATINGS	cFMus, cULus, CSA Class I, Div. 1 and 2, Groups A, B, C, & D Class II, Div. 1, Groups E, F, & G Class III ANSI/ISA 12.13.01 CSA C22.2 No. 152 Combustible Gas Performance, Class I, Div. 1 and Groups B, C, & D CE EMC Directive: 89/336/EEC CE ATEX Directive: 94/9/EC II 2G EEx d IIc T5 (Tamb -40°C to +60°C) TYPE 4X, IP 66 SIL 2 assessed to IEC 61508	

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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