

ULTIMA® XIR Plus Gas Detector

Technical Data Sheet

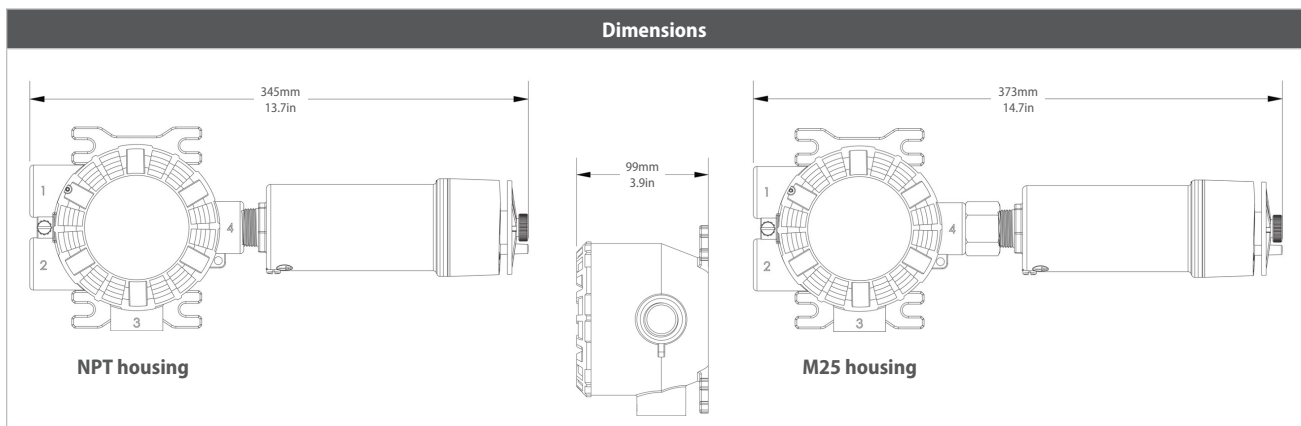


Supplemental Technical Data Sheet

The information contained within this document is a supplement to the Ultima® X5000 transmitter user manual.

Product Specifications	
COMBUSTIBLE GAS SENSOR TYPE	Infrared (ULTIMA XIR PLUS)
TOXIC GAS SENSOR TYPE	Carbon Dioxide CO ₂ (ULTIMA XIR PLUS)
SENSOR MEASURING RANGES	
COMBUSTIBLE	0-100% LEL
CO ₂	0-2%, 0-5% Vol
TYPICAL SENSOR LIFE	10 years
Sensor Performance*	
T90 (TYPICAL)	<2 sec.
REPEATABILITY	±1% of scale
ZERO DRIFT (PER YEAR)	<2% full scale
APPROVALS CLASSIFICATION	
US DIVISIONS	Class I Div 1 Groups A-D, T5, Type 4X, IP66 Class II Div 1 Groups E-G, T6; Class III
US ZONES	Class I Zone 1 AEx db IIC T5 Gb Class II Zone 21 AEx tb IIIC T85°C Db
GLOBAL ZONES	Ex db IIC T5 Gb Ex tb IIIC T85°C Db
WARRANTY	
ULTIMA X5000 TRANSMITTER	2 years
ULTIMA XIR PLUS	10 years source, 5 years electronics
APPROVALS	CSA, ATEX, IECEx, CE Marking. Complies with C22.2 No. 152, FM 6320 RED, FCC Suitable for SIL 2
Environmental Specifications	
OPERATING TEMPERATURE RANGE	-40°C to +60°C (-40°F to +140°F) <i>(may differ by gas, see manual)</i>
STORAGE TEMPERATURE RANGE	-40°C to +60°C (-40°F to +140°F)
RELATIVE HUMIDITY (NON-CONDENSING)	0-95%

* Typical response at standard temperature and pressure test conditions.



WE KNOW WHAT'S AT STAKE.

Mechanical Specifications	
INPUT POWER	10 to 30 VDC, 3 wire, <5W nominal
SIGNAL OUTPUT	Dual 4-20 mA current source, HART
BLUETOOTH (OPTIONAL)	Bluetooth Low Energy (BLE) v4.3 or higher
RELAY RATINGS	5A @ 30VDC; 5A @220 VAC (3X) SPDT – fault, warn, alarm
RELAY MODES	Common, discrete, horn
NOMINAL MAX POWER (W/ RELAYS)	
ULTIMA XIR PLUS	6.7W
ULTIMA XIR PLUS W/XCELL® COMBUSTIBLE SENSOR	9.6W
ULTIMA XIR PLUS W/XCELL TOXIC & O ₂ SENSORS	7.0W
DUAL ULTIMA XIR PLUS*	11.6W
REMOTE MOUNTED SENSORS	All sensors can be remotely mounted up to 100 m from the Transmitter.
EMC DIRECTIVE	Complies with EN 50270, EN 61000-6-4, EN 61000-6-3
DISPLAY	Organic LED (multi-lingual) with Contrast Ratio of 2000:1 and View Angle of 160°
HART	HART 7, HART device description language available
FAULTS MONITORED	Low supply voltage, RAM checksum error, flash checksum error, EEPROM error, internal circuit error, relay, invalid sensor configuration, sensor faults, calibration faults, general system
WIRING REQUIREMENTS	3-wire (single sensor) or 4-wire (dual sensor) shielded cable. <i>Refer to manual for mounting distances and wire gauge.</i>

* If dual IR sensors are connected to the Transmitter, one must be remotely mounted.

Advanced Sensor Technology

The Ultima X5000 XIR Plus Monitor operates on a 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
- 4-20 mA, HART
- Fail-to-safety operation
- Immune to poisoning
- No-gas calibration; zero adjustment meets requirement for full calibration
- No sensor life reduction from gas exposure and operates in extended temperature ranges
- Field-selectable algorithms for a variety of hydrocarbon-based gases
- Dual sensor capability doubles sensing power with half the footprint of a single gas sensor transmitter
- Dirty optics indication via mA output
- Mirror and lamp window cleaning capability without declassifying the detector



Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice.

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