

# ULTIMA® X5000 Gas Monitor

The future looks bright.



Simple retrofits have identical footprint and wiring to ULTIMA X Gas Monitor series.

Bluetooth® wireless technology allows mobile device to act as HMI screen and controller.

Intuitive display features new design equipped with organic LED (OLED) display, with full word text in 9 languages. Bright green, yellow, and red status LEDs for extreme visibility.



X/S Connect App

Reduce setup time by at least 50% with the X/S Connect App.



Industry-first, touch-button interface provides intuitive, tool-free user experience.

Instrument status indicators illuminate power, fault, and alarm conditions.

## Advanced Sensor Technology

POWERED BY

**XCell®**  
SENSORS

WITH

**TruCal®**  
TECHNOLOGY

- Patented XCell Sensors with TruCal technology\* extend calibration cycles for as long as 18 months, actively monitor sensor integrity and compensate for environmental factors and electrochemical sensor drift.
- **Diffusion Supervision** sends acoustic signal every 6 hours to check that sensor inlet isn't obstructed so gas can reach the sensor.
- Worry-free operation; automatically self-checks four times per day.
- Three-year warranty and five-year expected life for XCell Sensors.
- **Dual sensor capability** doubles sensing power with half the footprint of a single gas sensor transmitter.
- **SafeSwap** enables safe and quick XCell Sensor replacement without powering off gas detector.

**SafeSwap®**



## Applications

- |               |                 |                    |
|---------------|-----------------|--------------------|
| • Chemical    | • Petrochemical | • Wastewater       |
| • Oil and gas | • Utilities     | • General industry |

\* Only CO & H<sub>2</sub>S XCell Sensors

**WE KNOW WHAT'S AT STAKE.**

# ULTIMA X5000 Gas Monitor

## Specifications



Product Specifications				
COMBUSTIBLE GAS SENSOR TYPE	Catalytic Bead (XCell combustible) Infrared (XIR Plus)			
TOXIC GAS & OXYGEN SENSOR TYPE	XIR PLUS XCell Toxic	Carbon Dioxide (CO <sub>2</sub> ) Carbon Monoxide (CO) Carbon Monoxide (CO) H <sub>2</sub> -resistant Hydrogen Sulfide (H <sub>2</sub> S) Chlorine (Cl <sub>2</sub> )		
		XCell O <sub>2</sub> Oxygen (O <sub>2</sub> )		
	XCell SO <sub>2</sub> Electrochem.	Sulfur Dioxide (SO <sub>2</sub> ) Hydrogen (H <sub>2</sub> ) Nitrogen Dioxide (NO <sub>2</sub> )		
	SENSOR MEASURING RANGES	Combustible	0-100% LEL	
CO <sub>2</sub>		0-2%, 0-5% Vol		
CO		0-100, 0-500, 0-1000 ppm		
CO, H <sub>2</sub> -resistant		0-100 ppm		
Cl <sub>2</sub>		0-5, 0-10, 0-20 ppm		
H <sub>2</sub>		0-1000 ppm		
H <sub>2</sub> S		0-10, 0-50, 0-100, 0-500 ppm		
NO <sub>2</sub>		0-10 ppm		
O <sub>2</sub>		0-25%		
SO <sub>2</sub>		0-25 ppm		
TYPICAL SENSOR LIFE	XCell Sensors	5 years		
	Infrared	10 years		
SENSOR PERFORMANCE*	T90 (typical)	Repeatability	Zero Drift (per year)	
	XIR PLUS COMB.	< 2 sec.	< ± 1% LEL	N/A
	XIR PLUS CO <sub>2</sub>	< 6 sec.	< ± 1% Vol	N/A
	XCELL COMB.	< 22 sec.	< ± 3% LEL	< 5% LEL
	XCELL CO	< 9 sec.	< ± 1%	< 1% full scale
	XCELL Cl <sub>2</sub>	< 12 sec.	± 1%	≤ 1% FS per mo.
	H <sub>2</sub>	< 185 sec.	< ± 10%	< 1% FS per mo.
	XCELL H <sub>2</sub> S	< 23 sec.	< ± 1%	< 1% full scale
	NO <sub>2</sub>	< 60 sec.	< ± 10%	< 1% FS per mo.
	XCELL O <sub>2</sub>	< 11 sec.	< ± 1% Vol	< 0.2% Vol
XCELL SO <sub>2</sub>	< 6 sec.	± 1%	≤ 1% FS per mo.	
APPROVALS CLASSIFICATION	Markings vary by component. See manual for specific component markings.			
DIVISIONS (US/CAN)	Class I, II, III; Div 1 & 2, T4/T5/T6			
ZONES (GLOBAL)	Ex db nA IIC T5 Gb (Class I, Zone 1/Zone2) Ex tb IIIC T85°C Db (Class II, Zone 21)			
ENCLOSURE RATING	Type 4X, IP66			
WARRANTY	X5000 transmitter		2 years	
	XIR PLUS		10 years source, 5 years electronics	
	XCell Sensors		3 years	
	Electrochemical Sensors		Varies by gas	
APPROVALS	CSA, ATEX, IECEx, INMETRO, DNV-GL Marine, CE Marking.			
	Complies with C22.2 No. 152, FM 6320 RED, FCC, Suitable for SIL 2			

\*Typical response at standard temperature and pressure test conditions

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.

Environmental Specifications**	
<b>OPERATING TEMPERATURE RANGE</b>	** May differ by gas type, see manual <b>XCell</b> -40°C to +60°C <b>XIR PLUS</b> -40°C to +60°C
<b>STORAGE TEMPERATURE RANGE</b>	-40°C to +60°C
<b>RELATIVE HUMIDITY (NON-CONDENSING)</b>	<b>XCell toxics &amp; O<sub>2</sub></b> 10-95%
	<b>XCell combustible</b> 0-95%
	<b>XIR PLUS</b> 15-95%
Mechanical Specifications	
<b>INPUT POWER</b>	11 to 30 VDC, 3 wire, <5 W nominal
<b>SIGNAL OUTPUT</b>	Dual 4-20 mA current source, HART
<b>BLUETOOTH (OPTIONAL)</b>	Bluetooth Low Energy (BLE) v4.3 or higher
<b>RELAY RATINGS</b>	5 A @ 30 VDC; 5 A @ 220 VAC (3X) SPDT - fault, warn, alarm
<b>RELAY MODES</b>	Common, discrete, horn
<b>NORMAL MAX POWER RELAYS</b>	<b>XIR PLUS</b> 6.7 W
	<b>XCell combustible</b> 4.9 W
	<b>XCell Toxic &amp; O<sub>2</sub></b> 2.8 W
	<b>XIR PLUS &amp; XCell combustible</b> 10.9 W
	<b>XIR PLUS &amp; XCell toxic or O<sub>2</sub></b> 7.0 W
	<b>Dual XIR PLUS</b> 11.6 W
	<b>Dual XCell toxic &amp; O<sub>2</sub></b> 3.6 W
	<b>Dual XCell combustible</b> 10.6 W
	<b>Dual XCell comb. &amp; XCell toxic or O<sub>2</sub></b> 5.3 W
<b>EMC DIRECTIVE</b>	Complies with EN 50270, EN 61000-6-4, EN 61000-6-3
<b>DISPLAY</b>	Organic LED (multi-lingual) with contrast ratio of 2000:1 and view angle of 160°
<b>HART</b>	HART 7, HART device description language available
<b>FAULTS MONITORED</b>	Low supply voltage, RAM checksum error, flash checksum error, EEPROM error, internal circuit error, relay, invalid sensor configuration, sensor faults, general system
<b>WIRING REQUIREMENTS</b>	3-wire (single sensor) or 4-wire (dual sensor) shielded cable. <i>Refer to manual for mounting distances and wire gauge.</i>
Dimensions	
<b>HOUSING (W x H)</b>	5.88" x 5.71" (150 x 145 mm)
<b>W/XCELL SENSOR</b>	5.88" x 10.15" (150 x 258 mm)
<b>W/XCELL &amp; XIR SENSORS</b>	13.42" x 10.15" (341 x 258 mm)
<b>LID (DEPTH)</b>	
	<b>W/RELAY BOARD</b> 4.86" (123 mm) <b>W/O RELAY BOARD</b> 3.86" (98 mm)
<b>WEIGHT</b>	8.8 lb. (4 kg), 316 SS

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