

ULTIMA® X5000 Gas Monitor

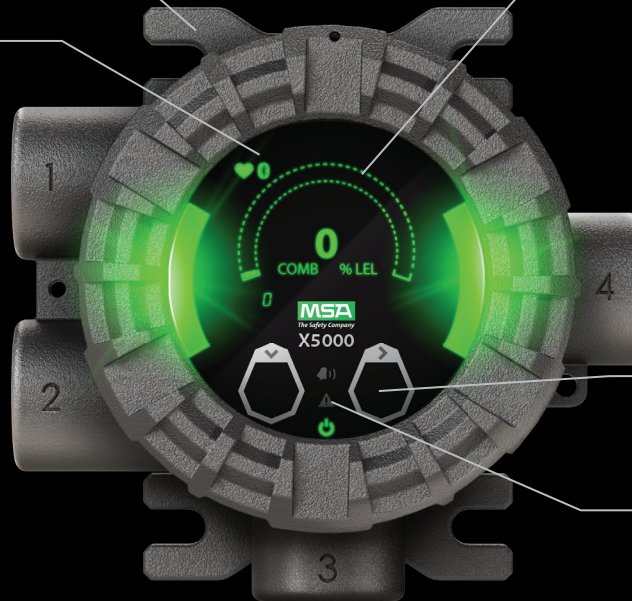
The future looks bright.



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.



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

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



X/S Connect App

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



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.



Applications

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

* Only CO & H₂S 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	Carbon Dioxide (CO ₂)		
	XCell Toxic	Carbon Monoxide (CO), Carbon Monoxide (CO) H ₂ -resistant, Hydrogen Sulfide (H ₂ S), Chlorine (Cl ₂), Ammonia (NH ₃), Sulfur Dioxide (SO ₂)		
	XCell O₂	Oxygen (O ₂)		
	Electrochem.	Hydrogen (H ₂), Ammonia (NH ₃), Nitrogen Dioxide (NO ₂)		
SENSOR MEASURING RANGES	Combustible	0-100% LEL		
	CO₂	0-2%, 0-5% Vol		
	CO	0-100, 0-500, 0-1000 ppm		
	CO, H₂-resistant	0-100 ppm		
	Cl₂	0-5, 0-10, 0-20 ppm		
	H₂	0-1000 ppm		
	H₂S	0-10, 0-50, 0-100, 0-500 ppm		
	NH₃	0-100 ppm, 0-1000 ppm		
	NO₂	0-10 ppm		
	O₂	0-25%		
SO₂	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 ₂	< 6 sec.	< ± 1% Vol	N/A
	XCELL COMB.	< 22 sec.	< ± 3% LEL	< 5% LEL
	XCELL CO	< 9 sec.	< ± 1%	< 1% full scale
	XCELL Cl ₂	< 12 sec.	± 1%	≤ 1% FS per mo.
	H ₂	< 185 sec.	< ± 10%	< 1% FS per mo.
	XCELL H ₂ S	< 23 sec.	< ± 1%	< 1% full scale
	XCELL NH ₃	< 60 sec.	± 1%	≤ 1% FS per mo.
	NO ₂	< 60 sec.	< ± 10%	< 1% FS per mo.
	XCELL O ₂	< 11 sec.	< ± 1% Vol	< 0.2% Vol
	XCELL SO ₂	< 6 sec.	± 1%	≤ 1% FS per mo.
	APPROVALS CLASSIFICATION	<i>Markings vary by component. See manual for specific component markings.</i>		
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		
APPROVALS	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**	
OPERATING TEMPERATURE RANGE	** May differ by gas type, see manual XCell -40°C to +60°C XIR PLUS -40°C to +60°C
STORAGE TEMPERATURE RANGE	-40°C to +60°C
RELATIVE HUMIDITY (NON-CONDENSING)	XCell toxics & O₂ 10-95%
	XCell combustible 0-95%
	XIR PLUS 15-95%
Mechanical Specifications	
INPUT POWER	11 to 30 VDC, 3 wire, <5 W nominal
SIGNAL OUTPUT	Dual 4-20 mA current source, HART
BLUETOOTH (OPTIONAL)	Bluetooth Low Energy (BLE) v4.3 or higher
RELAY RATINGS	5 A @ 30 VDC; 5 A @ 220 VAC (3X) SPDT - fault, warn, alarm
RELAY MODES	Common, discrete, horn
NORMAL MAX POWER RELAYS	XIR PLUS 6.7 W
	XCell combustible 4.9 W
	XCell Toxic & O₂ 2.8 W
	XIR PLUS & XCell combustible 10.9 W
	XIR PLUS & XCell toxic or O₂ 7.0 W
	Dual XIR PLUS 11.6 W
	Dual XCell toxic & O₂ 3.6 W
Dual XCell combustible 10.6 W	
Dual XCell comb. & XCell toxic or O₂ 5.3 W	
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 angel 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, 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>
Dimensions	
HOUSING (W x H)	W/XCELL SENSOR 5.88" x 5.71" (150 x 145 mm)
	W/XCELL & XIR SENSORS 5.88" x 10.15" (150 x 258 mm)
	W/XCELL & XIR SENSORS 13.42" x 10.15" (341 x 258 mm)
LID (DEPTH)	W/RELAY BOARD 4.86" (123 mm)
	W/O RELAY BOARD 3.86" (98 mm)
WEIGHT	8.8 lb. (4 kg), 316 SS

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit [MSAsafety.com/offices](https://www.MSA.com/offices).