ULTIMA® X5000
Gas Monitor

WE KNOW YOU'RE TIRED OF...

"NEEDING TO DISCONNECT POWER BEFORE CHANGING A SENSOR"

"REMEMBERING HOW TO CALIBRATE THIS THING"

"HAVING TO PULL SO MUCH WIRE AT EVERY GAS DETECTOR INSTALLATION..."

"WONDERING IF THE GAS DETECTOR IS WORKING"

YOU HAVEN'T BEEN ABLE TO DO ANYTHING ABOUT IT... UNTIL NOW.

"LOSING MY MAGNET... I HAVE BIGGER THINGS TO WORRY ABOUT"

ALL NEW DESIGN

MSA
The Safety Company

BLUETOOTH® CONNECTION STATUS

ACTIVE OPERATION INDICATOR

GAS READING GAUGE AND PROGRESS BAR

0
COMB   % LEL

MSA *The Safety Company* X5000

BRIGHT STATUS LED

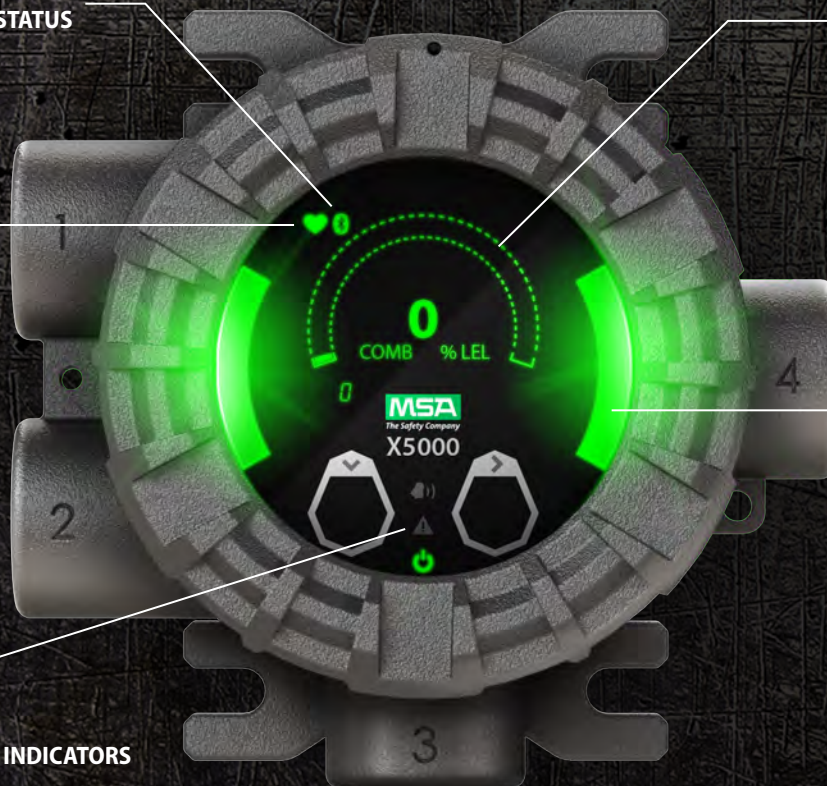**INSTRUMENT STATUS INDICATORS**

Power   *Fault*   *Alarm*

STAY CONNECTED. WORK SMARTER.

- Bluetooth wireless technology
- Check status and get alerts up to 75 ft. (23 m) away
- Modify settings/setpoints/alarms
- Initiate calibration and view progress
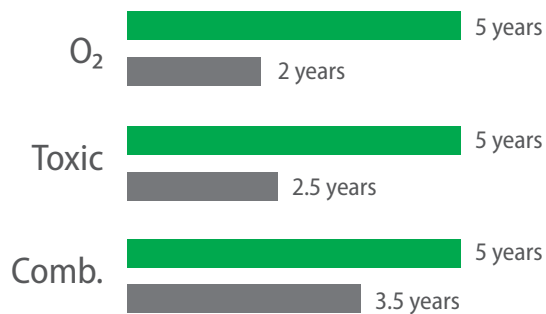- Reduce setup time by at least 50%

GET IT ON **Google Play**

Download on the **App Store**

X/S Connect App

*MSA**safety**.com/detection*

ADVANCING SENSOR TECHNOLOGY

Up to **2 YEARS** between calibrations!

XCell® SENSORS

MSA   **Industry Average**

Longer Sensor Life

O_2
- 5 years (MSA)
- 2 years (Industry Average)

Toxic
- 5 years (MSA)
- 2.5 years (Industry Average)

Comb.
- 5 years (MSA)
- 3.5 years (Industry Average)

Longer Warranties
- 3 years (MSA)
- 1 year (Industry Average)

Higher Temperature
- + 60℃ (MSA)
- + 50℃ (Industry Average)

10x Better Resolution for H_2S & SO_2
- 0.1 ppm (MSA)
- 1 ppm (Industry Average)

* Data may vary for different gases and configurations
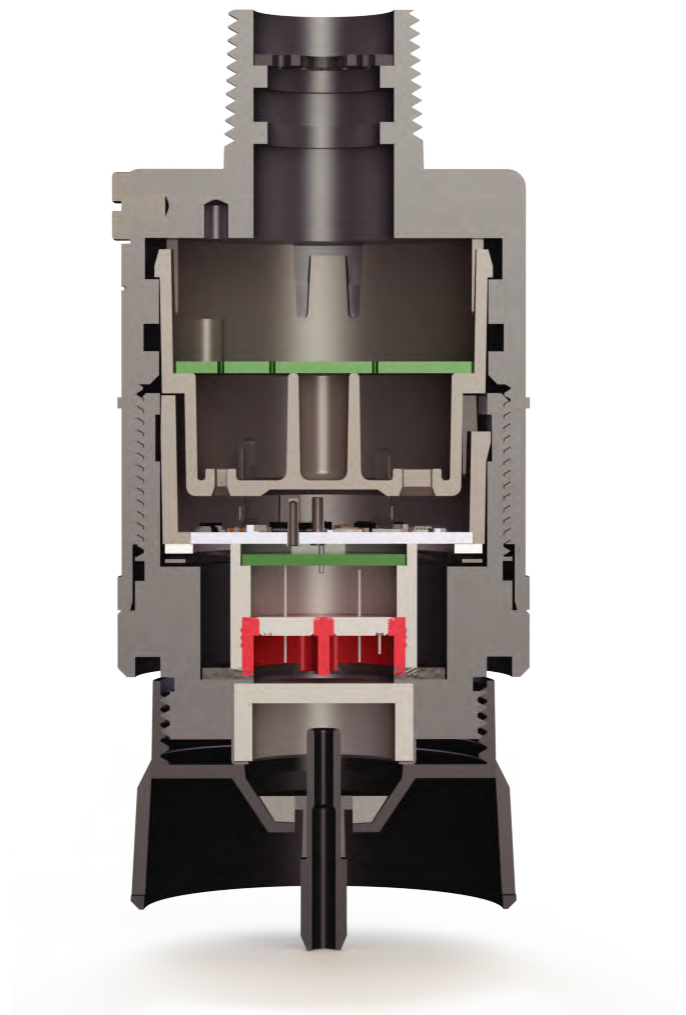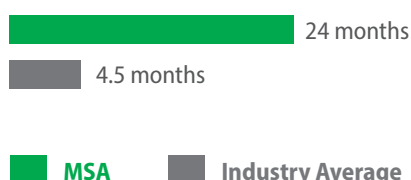
RE-CALIBRATE YOUR EXPECTATIONS

TruCal®
TECHNOLOGY

Adaptive Environmental Compensation (AEC)

Longer Sensor Life

Automatically self-checks 4x/day

Longer Calibration Cycles

24 months

4.5 months

MSA   **Industry Average**

Better Stability (Lower Drift)

MSA

Sensor Stability
(% Original Output)

50%   Industry Average

Months   24

Diffusion Supervision (DS)

SPEAKER &
SPEAKER PORT

XCELL
SENSOR

UNOBSTRUCTED
SENSOR OPENING

XCELL
SENSOR

MEASUREMENT
MICROPHONE
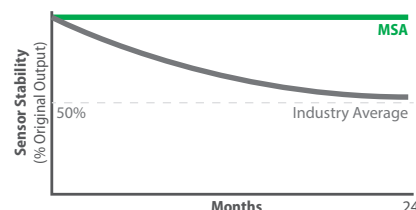
BLOCKED SENSOR
OPENING
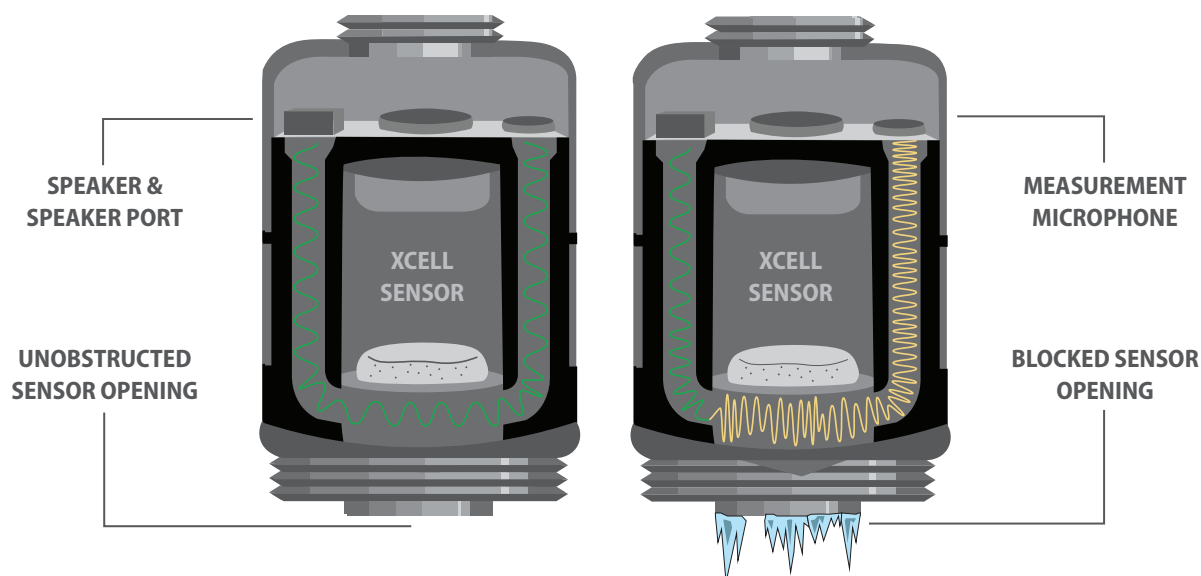
Diffusion Supervision warns if the sensor inlet becomes blocked and unable to detect gas. It employs a proprietary acoustic mechanical design and algorithms to measure sound across the sensor's inlet. If the inlet is blocked with a material, like ice, the difference in the sound is detected and the unit is put into fault. When the obstruction is removed, Diffusion Supervision detects the clearance and returns to normal operation. H_2S and CO Sensors configured with Diffusion Supervision technology allow extended calibration cycles of 24 months reducing maintenance costs and allowing resources to be utilized elsewhere!

DO MORE WITH LESS

2" (50.8 mm) integral pipe mount bracket

3/4" (19 mm) NPT or M25 threads

Dual sensors and analog outputs

Touch interface for tool-free operation

Combustible, toxic, or oxygen digital sensors

SIMPLE RETROFITS

Identical footprint and wiring as ULTIMA X Series

Dual sensing capability for any combination of sensors

Tag attachment

Multilingual text menu options

COMB   % LEL
0

MSA
The Safety Company
X5000

SafeSwap®   XCell® SENSORS

POWERED BY

XCell®
SENSORS

WITH

TruCal®
TECHNOLOGY

SafeSwap®

Safely and quickly replace sensors without turning off the instrument

IT MAKES SENSE... NO EXCEPTIONS

5 years
EXPECTED LIFE

3 years
WARRANTY

12⁺
PATENTS

We're going to help you save*

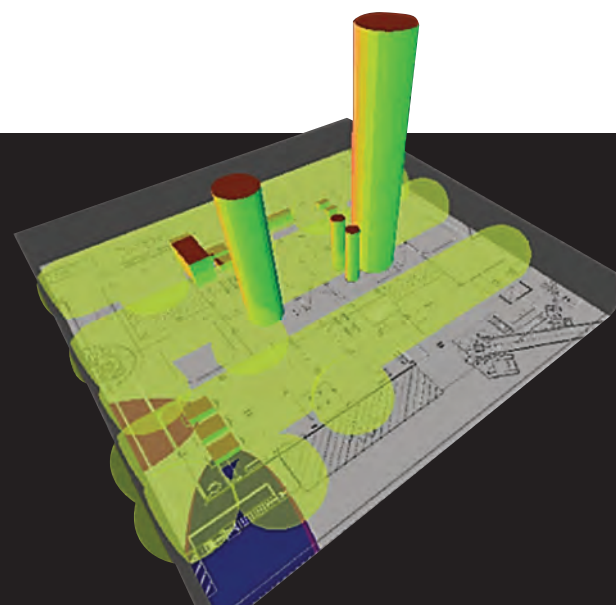|		
Installation	30%	~$7,000
Annual maintenance	50%	~$1,500
Over the life of the product	75%	~$15k

Request a Cost of Ownership comparison.

Questions about sensor placement?

MSA's gas and flame mapping service combines 160 years of gas detection experience with 3D technology to help you maximize the effectiveness of every sensor.

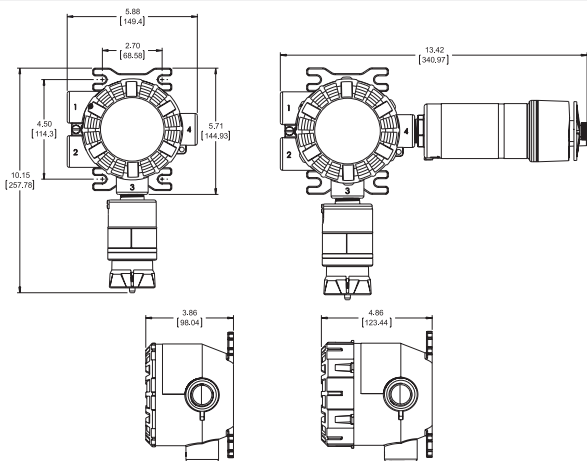Check out the link or scan for more information:
MSAsafety.com/gas-mapping

* Based on 10 sensors and 2 sensors/transmitter

MSAsafety.com/detection

MSA
The Safety Company

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	Ammonia (NH_3), Carbon Monoxide (CO), Carbon Monoxide (CO) H_2-resistant, Hydrogen Sulfide (H_2S), Chlorine (Cl_2), Sulfur Dioxide (SO_2)
	XCell O_2	Oxygen (O_2)
	Electrochem.	Ammonia (NH_3), Hydrogen (H_2), Hydrogen Chloride (HCl), Nitric Oxide (NO), Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2)
SENSOR MEASURING RANGES	**Combustible**	0-100% LEL
	CO_2	0-2%, 0-5% Vol
	CO	0-100, 0-500, 0-1000 ppm
	CO, H_2-resistant	0-100 ppm
	Cl_2	0-5, 0-10, 0-20 ppm
	H_2	0-1000 ppm
	HCl	0-50 ppm
	H_2S	0-10, 0-50, 0-100, 0-500 ppm
	NH_3	0-100, 0-1000 ppm
	NO	0-100 ppm
	NO_2	0-10 ppm
	O_2	0-25%
	SO_2	0-25, 0-100 ppm
TYPICAL SENSOR LIFE	**XCell Sensors**	5 years
	Infrared	10 years
APPROVALS CLASSIFICATION	*Markings vary by component. See manual for specific component markings.*	
DIVISIONS (US/CAN)	Class I, 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, FM*, ATEX, IECEx, INMETRO, DNV-GL Marine, CE Marking. Complies with C22.2 No. 152, FM 6320 RED, FCC, Suitable for SIL 2	

Environmental Specifications**

OPERATING TEMPERATURE RANGE	*** May differ by gas type, see data sheet*	
	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 & O_2**	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

	Without Relays	With Relays
XIR PLUS	5.7 W	6.7 W
XCell combustible	3.9 W	4.9 W
XCell Toxic & O_2	1.8 W	2.8 W
XIR PLUS & XCell combustible	9.9 W	10.9 W
XIR PLUS & XCell toxic or O_2	6.0 W	7.0 W
Dual XIR PLUS	10.6 W	11.6 W
Dual XCell toxic & O_2	2.6 W	3.6 W
Dual XCell combustible	9.6 W	10.6 W
Dual XCell comb. & XCell toxic or O_2	4.3 W	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 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, general system
CABLE REQUIREMENTS	3-wire shielded cable for single sensor and 4-wire shielded cable for dual sensor configurations. Accommodates up to 12 AWG or 4 mm2 *Refer to manual for mounting distances.*

Dimensions

* See manual for FM approved sensors.

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit **MSAsafety.com/offices**.