MSA
The Safety Company

# ULTIMA® X5000 Gas Monitor


WE KNOW WHAT'S AT STAKE.

# *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

BLUETOOTH®
CONNECTION STATUS

ACTIVE
OPERATION
INDICATOR

GAS READING
GAUGE AND
PROGRESS BAR

BRIGHT
STATUS LED


INSTRUMENT STATUS INDICATORS

Power Fault Alarm

## STAY CONNECTED. WORK SMARTER.

- Bluetooth wireless technology
- Check status and get alerts up to 70 ft. (21 m) away
- Modify settings/setpoints/alarms
- Initiate calibration and view progress
- Reduce setup time by at least 50%

GET IT ON Google Play

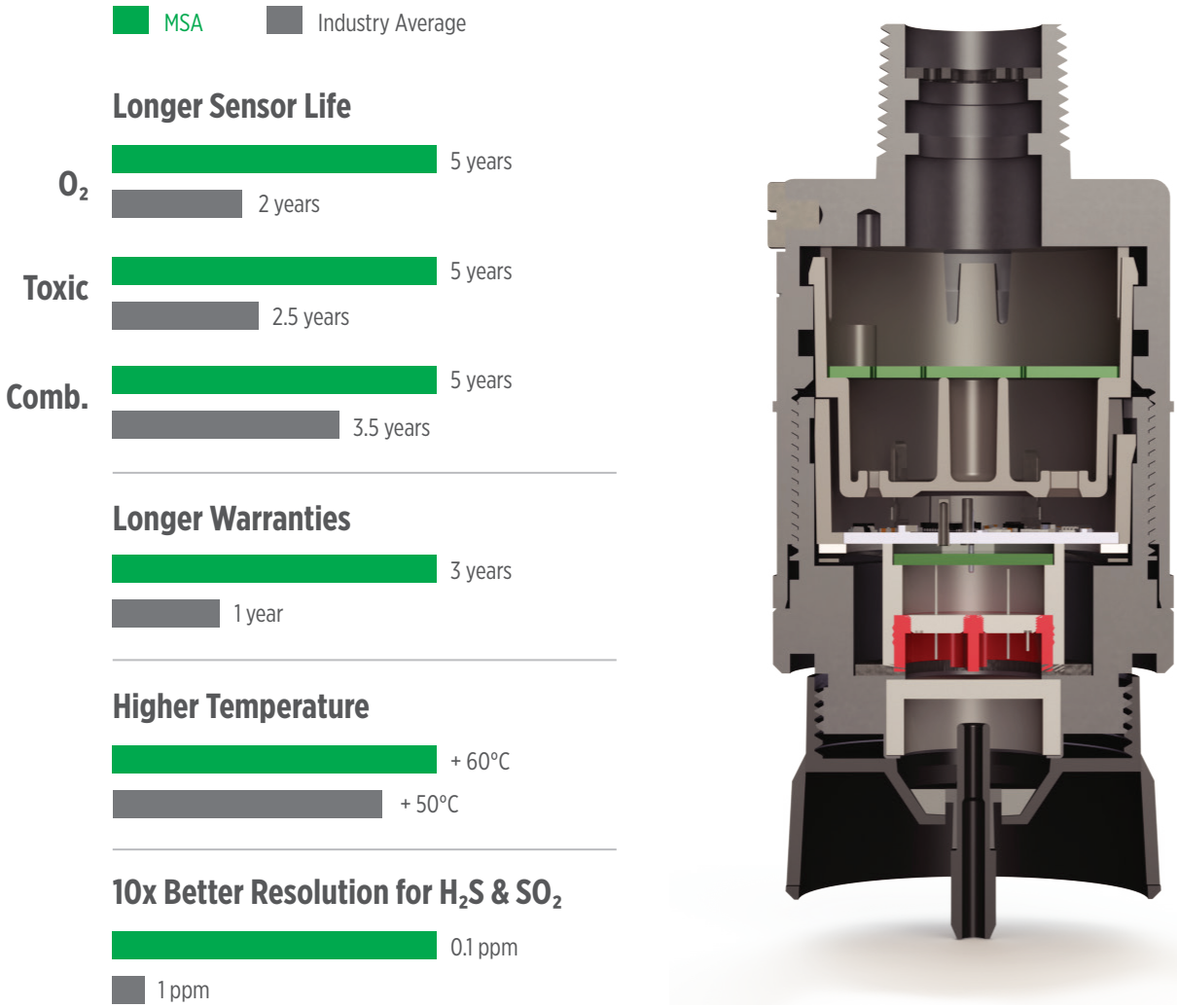
Download on the App Store

X/S Connect App

# ADVANCING SENSOR TECHNOLOGY

## Up to **2 YEARS** between calibrations!

XCell® SENSORS






** Data may vary for different gases and configurations*

# RE-CALIBRATE YOUR EXPECTATIONS

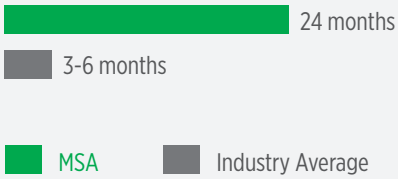
TruCal® TECHNOLOGY

## Adaptive Environmental Compensation (AEC)

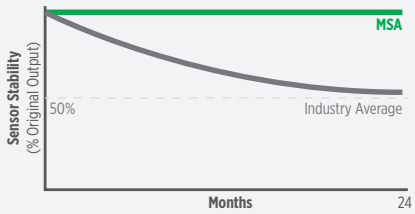
### Longer Sensor Life

Automatically self-checks 4x/day

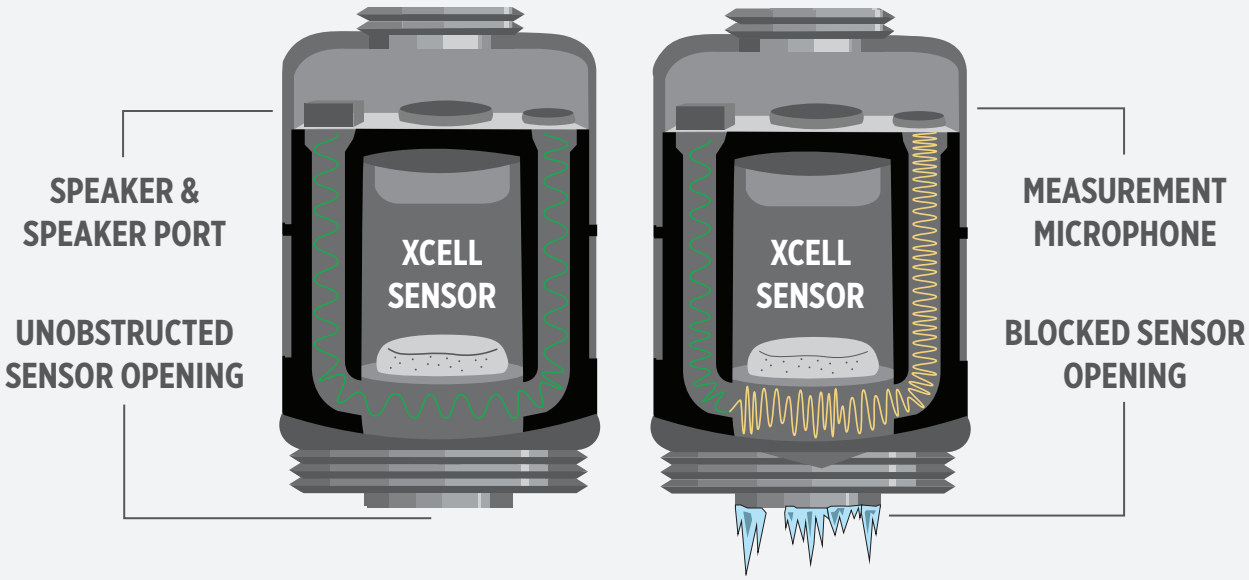
### Longer Calibration Cycles




### Better Stability (Lower Drift)




## Diffusion Supervision (DS)




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


**POWERED BY**

XCell SENSORS

**WITH**

TruCal® TECHNOLOGY

**SafeSwap®**

Safely and quickly replace sensors without turning off the instrument

MSA
The Safety Company

# IT MAKES SENSE... NO EXCEPTIONS


EXPECTED LIFE


WARRANTY


PATENTS

## We're going to help you save*

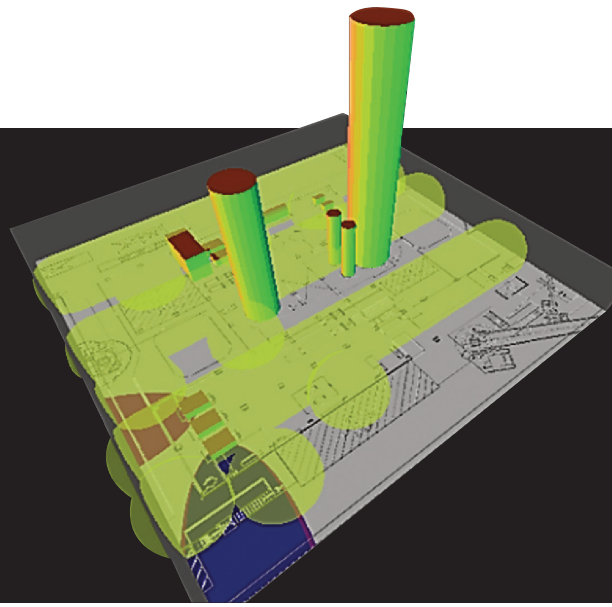
| | | |
|---|---|---|
| Installation | 30% | ~$7,000 |
| Annual maintenance | 50% | ~$1,500 |
| Over the life of the product | 75% | ~$15k |

**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**

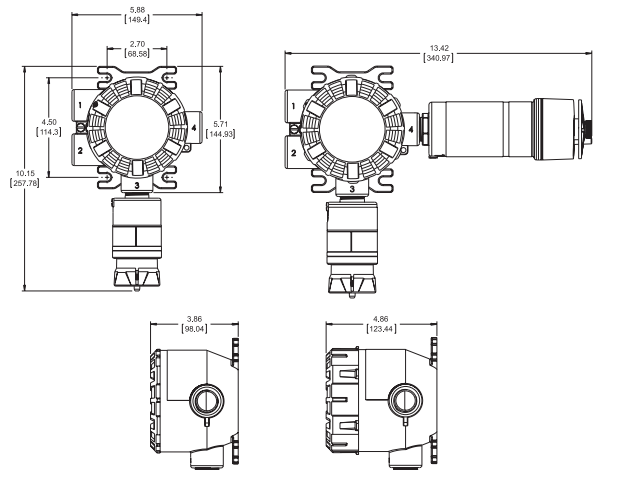


** Based on 10 sensors and 2 sensors/transmitter*

| Product Specifications | | |
|---|---|---|
| **COMBUSTIBLE GAS SENSOR TYPE** | Catalytic Bead (XCell combustible)<br>Infrared (XIR Plus) | |
| **TOXIC GAS & OXYGEN SENSOR TYPE** | **XIR PLUS**<br>**XCell Toxic**<br><br><br><br><br><br><br>**XCell $O_2$**<br>**Electrochem.** | Carbon Dioxide ($CO_2$)<br>Ammonia ($NH_3$),<br>Carbon Monoxide (CO),<br>Carbon Monoxide (CO) $H_2$-resistant,<br>Hydrogen Sulfide ($H_2S$),<br>Chlorine ($Cl_2$),<br>Chlorine Dioxide ($ClO_2$),<br>Sulfur Dioxide ($SO_2$)<br>Oxygen ($O_2$)<br>Ammonia ($NH_3$),<br>Ethylene Oxide (ETO)<br>Hydrogen ($H_2$),<br>Hydrogen Chloride (HCl),<br>Hydrogen Cyanide (HCN),<br>Hydrogen Fluoride (HF)<br>Nitric Oxide (NO),<br>Nitrogen Dioxide ($NO_2$),<br>Sulfur Dioxide ($SO_2$) |
| **SENSOR MEASURING RANGES** | **Combustible**<br>**$CO_2$**<br>**CO**<br>**CO, $H_2$-resistant**<br>**$Cl_2$**<br>**$ClO_2$**<br>**ETO**<br>**$H_2$**<br>**HCl**<br>**HCN**<br>**HF**<br>**$H_2S$**<br>**$NH_3$**<br>**NO**<br>**$NO_2$**<br>**$O_2$**<br>**$SO_2$** | 0-100% LEL<br>0-2%, 0-5% Vol<br>0-100, 0-500, 0-1000 ppm<br>0-100 ppm<br>0-5, 0-10, 0-20 ppm<br>0-3 ppm<br>0-10 ppm<br>0-1000 ppm<br>0-50 ppm<br>0-50 ppm<br>0-10 ppm<br>0-10, 0-50, 0-100, 0-500 ppm<br>0-100, 0-1000 ppm<br>0-100 ppm<br>0-10 ppm<br>0-25%<br>0-25, 0-100 ppm |
| **TYPICAL SENSOR LIFE** | **XCell Sensors**<br>**Infrared** | 5 years<br>10 years |
| **APPROVALS CLASSIFICATION** | *Markings vary by component.*<br>*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)<br>Ex tb IIIC T85°C Db (Class II, Zone 21) | |
| ENCLOSURE RATING | Type 4X, IP66 | |
| **WARRANTY** | **X5000 transmitter**<br>**XIR PLUS**<br><br>**XCell Sensors**<br>**Electrochemical Sensors** | 2 years<br>10 years source,<br>5 years electronics<br>3 years<br>Varies by gas |
| **APPROVALS** | CSA, FM*, ATEX, IECEx, INMETRO, DNV-GL Marine, CE Marking. SIL 2 suitable.<br>Complies with C22.2 No. 152, FM 6320 | |
| **Environmental Specifications**** | | |
| **OPERATING TEMPERATURE RANGE** | *** May differ by gas type, see data sheet*<br>**XCell**<br>**XIR PLUS** | <br>-40°C to +60°C<br>-40°C to +60°C |
| **RELATIVE HUMIDITY (NON-CONDENSING)** | **XCell toxics & $O_2$**<br>**XCell combustible**<br>**XIR PLUS** | 10-95%<br>0-95%<br>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<br>(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<br>*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***.

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