MSA
The Safety Company

# ULTIMA® X5000

MSA**X5000**.com

# 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"*

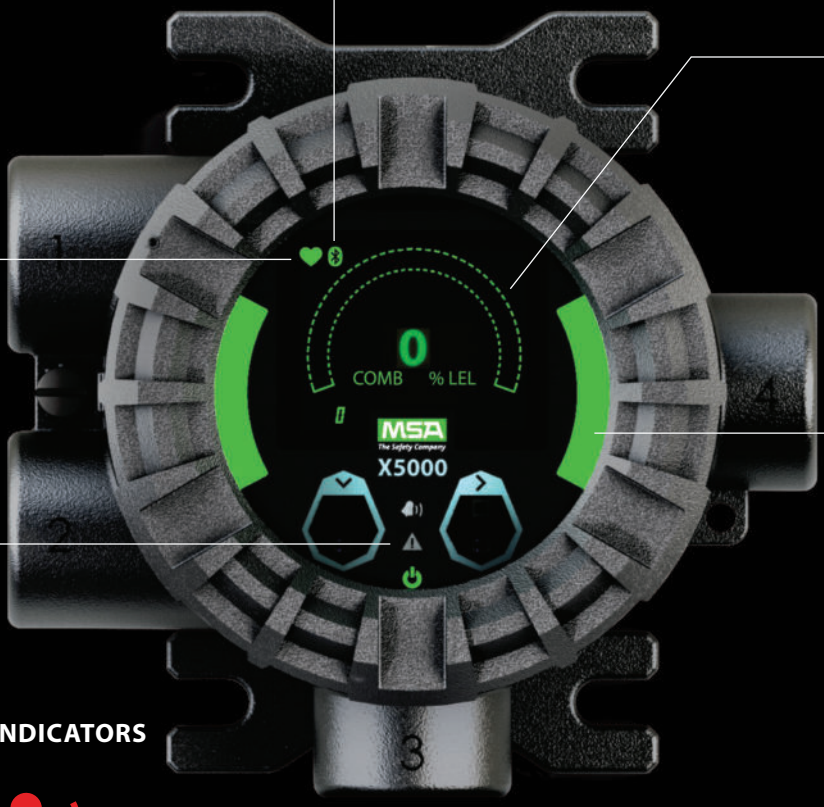
# ALL NEW DESIGN

BLUETOOTH®
CONNECTION STATUS

ACTIVE
OPERATION
INDICATOR

GAS READING
GAUGE AND
PROGRESS BAR

BRIGHT
STATUS LED




INSTRUMENT STATUS INDICATORS

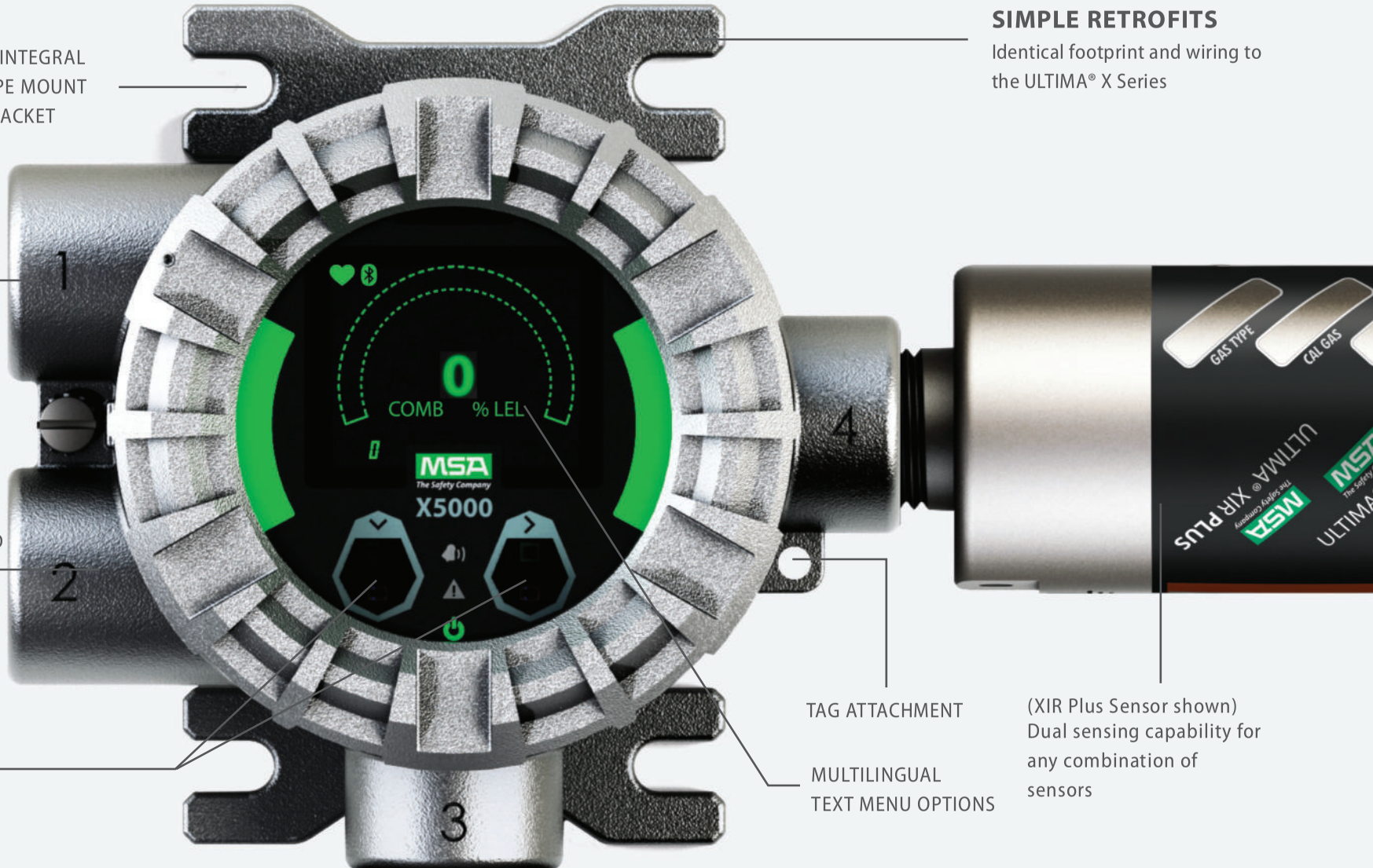
Power Fault Alarm

## STAY CONNECTED.
## WORK SMARTER.

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

# Do More with Less

## 1 Transmitter = 2X Sensing Power



Combustible, Toxic
or Oxygen
Digital Sensors

POWERED BY
XCell SENSORS
WITH
TruCal® PLATFORM

(ACTUAL SIZE)

**SafeSwap®**

Safely and quickly replace sensors without turning off the instrument

# MATERIAL OPTIONS

**STAINLESS STEEL**
Ultra Corrosion Resistant
8.8 lbs

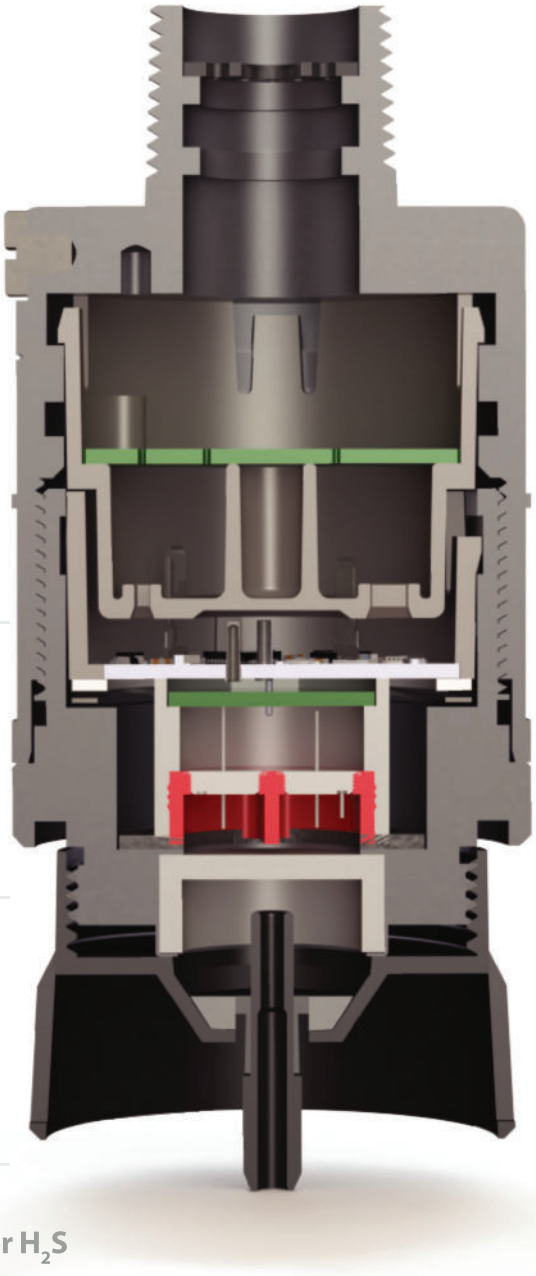
# NEW ADVANCED SENSOR TECHNOLOGY

## Up to **1.5 YEARS** between calibrations!

XCell® SENSORS

TruCal® TECHNOLOGY

*only CO & $H_2S$ XCell Sensors



MSA Industry Avg

### Longer Sensor Life

$O_2$
- 5 yrs
- 1 yr

Toxic ($CO/H_2S$)
- 5 yrs
- 2-3 yrs

### Longer Warranties

- 3 yrs
- 2 yr

### Higher Temperature

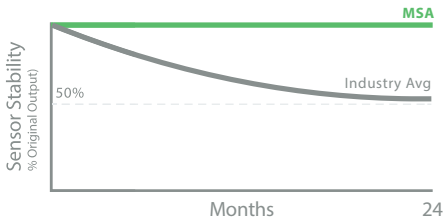
- +60C
- +50C

### 10x Better Resolution for $H_2S$

- 0.1ppm
- 1ppm

MSA Industry Avg

### Better Stability (Lower Drift)




### Longer Calibration Cycles

- 18 months
- 4.5 months

### Worry-Free Operation

Automatically self-checks 4x/day

* Data may vary for different gases and configurations

# IT MAKES SENSE...NO EXCEPTIONS

5 years

EXPECTED LIFE

3 years

WARRANTY

12+

PATENTS

## We're going to help you save*

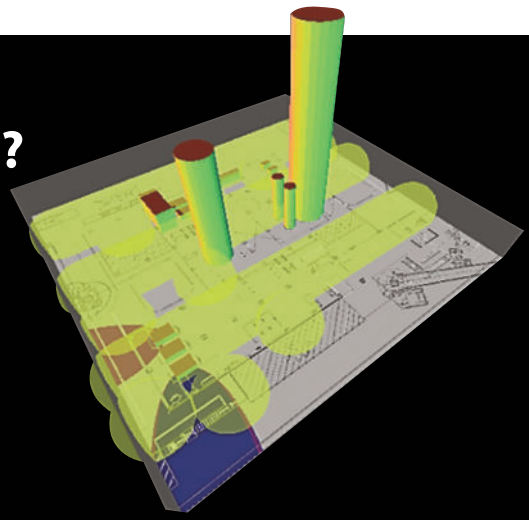
| | | |
|---|---|---|
| Installation | 30% | ~$7,000 |
| Annual Maintenance | 50% | ~$1,500 |
| Over the life of the product | 75% | ~$15k |

* Based on 10 sensors and 2 sensors/transmitter

## Questions about sensor placement?

MSA's new gas and flame mapping service combines 150 years of gas detection experience with 3D technology to help you maximize the effectiveness of every sensor.

Check out the link for more information:
https://us.msasafety.com/gas-mapping



*Trust us...We've been saving lives for over 100 years*

MSA
*The Safety Company*

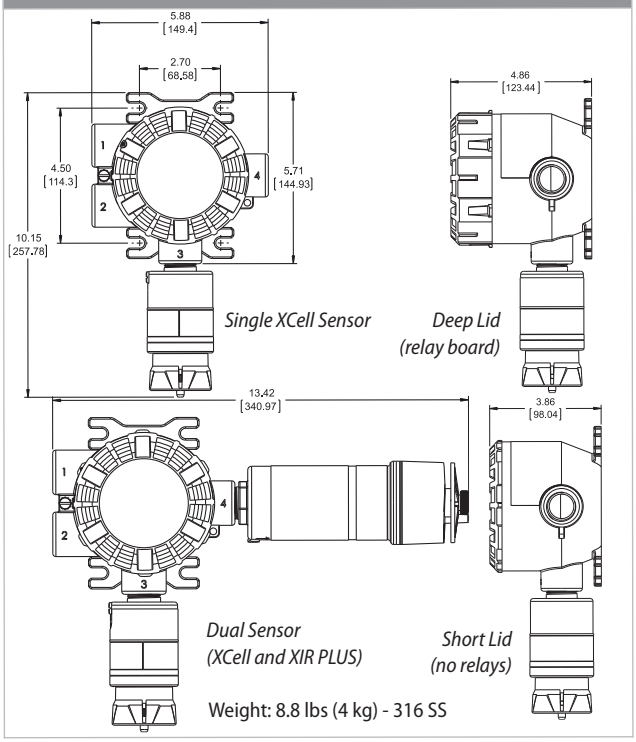
# ULTIMA X5000 Gas Monitor Specifications

| PRODUCT SPECIFICATIONS | | | |
|---|---|---|---|
| COMBUSTIBLE GAS SENSOR TYPE | Catalytic Bead (XCell Comb)<br>Infrared (XIR PLUS) | | |
| TOXIC GAS & OXYGEN SENSOR TYPE | Hydrogen Sulfide $H_2S$ (XCell Toxic)<br>Carbon Monoxide CO (XCell Toxic)<br>Carbon Monoxide CO $H_2$-Resistant (XCell Toxic)<br>Oxygen $O_2$ (XCell $O_2$) | | |
| SENSOR MEASURING RANGES | Combustible: 0-100% LEL<br>$H_2S$: 0-10, 0-50, 0-100 ppm<br>CO: 0-100, 0-500, 0-1000 ppm<br>CO-$H_2$ Resist: 0-100 ppm<br>$O_2$: 0-25% | | |
| TYPICAL SENSOR LIFE | 5 years – XCell Sensors<br>10 years - infrared | | |
| SENSOR PERFORMANCE* | T90 (TYPICAL) | REPEATABILITY | ZERO DRIFT (PER YEAR) |
| XIR PLUS | <2 sec. | ≤ +/- 1% LEL | <5% LEL |
| XCELL COMB | <22 sec. | ≤ +/- 1% LEL | <5% LEL |
| XCELL $H_2S$ | <23 sec. | +/- 5% | <1% full scale |
| XCELL $O_2$ | <15 sec. | ≤ +/- 0.3% Vol | 0.2% Vol |
| XCELL CO | <9 sec. | +/- 5% | <1% full scale |
| APPROVALS CLASSIFICATION | **US Divisions**<br>Class I Div 1 Groups A-D, T5, Type 4X, IP66<br>Class II Div 1 Groups E-G, T6; Class III<br>**US Zones**<br>Class I Zone 1 AEx db IIC T5 Gb<br>Class II Zone 21 AEx tb IIIC T85°C Db<br>**Global Zones**<br>Ex db IIC T5 Gb<br>Ex tb IIIC T85°C Db | | |
| WARRANTY | X5000 Transmitter: 2 years<br>XIR PLUS: 10 years source, 5 years electronics<br>XCell Sensors: 3 years | | |
| APPROVALS | CSA, ATEX, IECEx, CE Marking.<br>Complies with C22.2 No. 152, FM 6320, ANSI/ISA 12.13.01, ATEX/ IEC: EN 60079-29-1<br>Suitable for SIL 2 | | |
| **ENVIRONMENTAL SPECIFICATIONS** | | | |
| OPERATING TEMPERATURE RANGE | XCell: -40°C to +60°C<br>XIR PLUS: -40°C to +60°C<br>*(may differ by gas, see manual)* | | |
| STORAGE TEMPERATURE RANGE | -40°C to +60°C | | |
| RELATIVE HUMIDITY (NON-CONDENSING) | 10-95% (XCell Toxics & O2)<br>0-95% (XCell Comb)<br>0-95% (XIR PLUS) | | |

** Typical response at standard temperature and pressure test conditions*

| MECHANICAL SPECIFICATIONS | | |
|---|---|---|
| INPUT POWER | 10 to 30 VDC, 3 wire, <5W nominal | |
| SIGNAL OUTPUT | Dual 4-20 mA current source, HART, Bluetooth.<br>Optional: w/o Bluetooth | |
| RELAY RATINGS | 5A @ 30VDC; 5A @220 VAC<br>(3X) SPDT – fault, warn, alarm | |
| RELAY MODES | Common, discrete, horn | |
| NOMINAL MAX POWER (W/ RELAYS) | XIR PLUS | 6.7W |
| | XCell Comb | 5.5W |
| | XCell Toxic & $O_2$ | 2.8W |
| | XIR PLUS and XCell Comb | 9.6W |
| | XIR PLUS and XCell Toxic & $O_2$ | 7.0W |
| | Dual XIR PLUS | 11.6W |
| | Dual XCell Toxic & $O_2$ | 3.6W |
| | Dual XCell Comb | 10.6W |
| | Dual XCell Comb and XCell Toxic & $O_2$ | 5.5W |
| 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.<br>*Refer to manual for mounting distances and wire gauge.* | |

## DIMENSIONS




Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products. Specifications subject to change without notice.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