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

BLUETOOTH® CONNECTION STATUS

GAS READING GAUGE AND PROGRESS BAR

ACTIVE OPERATION INDICATOR

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%

Download on the
App Store

X/S Connect App

MSAsafety.com/detection
Up to **1.5 YEARS** between calibrations!

**Longer Sensor Life**
- **O₂**: 5 years (MSA) vs. 2 years (Industry Average)
- **Toxic**: 5 years (MSA) vs. 2.5 years (Industry Average)
- **Comb.**: 5 years (MSA) vs. 3.5 years (Industry Average)

**Longer Warranties**
- **O₂**: 3 years (MSA) vs. 1 year (Industry Average)

**Higher Temperature**
- **O₂**: + 60°C (MSA) vs. + 50°C (Industry Average)

**10x Better Resolution for H₂S & SO₂**
- **O₂**: 0.1 ppm (MSA) vs. 1 ppm (Industry Average)

*Data may vary for different gases and configurations.*
Adaptive Environmental Compensation (AEC)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longer Sensor Life</td>
<td>Automatically self-checks 4x/day</td>
</tr>
<tr>
<td>Longer Calibration Cycles</td>
<td>- 4.5 months</td>
</tr>
<tr>
<td></td>
<td>- 18 months</td>
</tr>
<tr>
<td>Better Stability (Lower Drift)</td>
<td>- MSA</td>
</tr>
<tr>
<td></td>
<td>- Industry Average</td>
</tr>
</tbody>
</table>

**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.

*TruCal available on CO & H₂S SCell Sensors*
DO MORE WITH LESS

SIMPLE RETROFITS
Identical footprint and wiring as ULTIMA X Series

Dual sensing capability for any combination of sensors

Tag attachment

Multilingual text menu options

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

POWERED BY
XCell SENSORS

WITH
TruCal TECHNOLOGY

SafeSwap®

Safety and quickly replace sensors without turning off the instrument
IT MAKES SENSE... NO EXCEPTIONS

We’re going to help you save*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Installation</td>
<td>30%</td>
<td>~$7,000</td>
</tr>
<tr>
<td>Annual maintenance</td>
<td>50%</td>
<td>~$1,500</td>
</tr>
<tr>
<td>Over the life of the product</td>
<td>75%</td>
<td>~$15k</td>
</tr>
</tbody>
</table>

Request a Cost of Ownership comparison.

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 or scan for more information: MSAsafety.com/gas-mapping

* Based on 10 sensors and 2 sensors/transmitter
### ULTIMA X5000 Gas Monitor

#### Specifications

**Mechanical Specifications**

<table>
<thead>
<tr>
<th>INPUT POWER</th>
<th>11 to 30 VDC, 3 wire, &lt;5 W nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGNAL OUTPUT</td>
<td>Dual 4-20 mA current source, HART</td>
</tr>
<tr>
<td>BLUETOOTH (OPTIONAL)</td>
<td>Bluetooth Low Energy (BLE) v4.3 or higher</td>
</tr>
<tr>
<td>RELAY RATINGS</td>
<td>5 A @ 30 VDC, 5 A @ 220 VAC (3X) SPOT - fault, warn, alarm</td>
</tr>
<tr>
<td>RELAY MODES</td>
<td>Common, discrete, horn</td>
</tr>
<tr>
<td>NORMAL MAX POWER RELAYS</td>
<td>XIR PLUS 6.7 W</td>
</tr>
<tr>
<td></td>
<td>XCell combustible 4.9 W</td>
</tr>
<tr>
<td></td>
<td>XCell Toxic &amp; O₂ 2.8 W</td>
</tr>
<tr>
<td></td>
<td>XIR PLUS &amp; XCell combustible 10.9 W</td>
</tr>
<tr>
<td></td>
<td>XIR PLUS &amp; XCell toxic or O₂ 7.0 W</td>
</tr>
<tr>
<td></td>
<td>Dual XIR PLUS 11.6 W</td>
</tr>
<tr>
<td></td>
<td>Dual XCell toxic &amp; O₂ 3.6 W</td>
</tr>
<tr>
<td></td>
<td>Dual XCell combustible 10.6 W</td>
</tr>
<tr>
<td></td>
<td>Dual XCell comb. &amp; XCell toxic or O₂ 5.3 W</td>
</tr>
<tr>
<td>EMC DIRECTIVE</td>
<td>Complies with EN 50270, EN 61000-6-4, EN 61000-6-3</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>Organic LED (multi-lingual) with contrast ratio of 2000:1 and view angel of 160°</td>
</tr>
<tr>
<td>HART</td>
<td>HART 7, HART device description language available</td>
</tr>
<tr>
<td>FAULTS MONITORED</td>
<td>Low supply voltage, RAM checksum error, flash checksum error, EEPROM error, internal circuit error, relay, invalid sensor configuration, sensor faults, general system</td>
</tr>
<tr>
<td>WIRING REQUIREMENTS</td>
<td>3-wire (single sensor) or 4-wire (dual sensor) shielded cable. Refer to manual for mounting distances and wire gauge.</td>
</tr>
</tbody>
</table>

**Dimensions**

#### Environmental Specifications*

- **OPERATING TEMPERATURE RANGE**
  - 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%

* May differ by gas type, see manual

**COMBUSTIBLE GAS SENSOR TYPE**

- Catalytic Bead (XCell combustible)
- Infrared (XIR Plus)

**TOXIC GAS & OXYGEN SENSOR TYPE**

- **XIR PLUS**
  - Carbon Dioxide (CO₂)
  - Carbon Monoxide (CO)
  - Carbon Monoxide (CO) H₂-resistant
  - Hydrogen Sulfide (H₂S)
  - Chlorine (Cl₂)
- **XCell Toxic**
  - Oxygen (O₂)
- **XCell O₂**
  - Sulfur Dioxide (SO₂)
- **Electrochem.**
  - Hydrogen (H₂)
  - Nitrogen Dioxide (NO₂)

**SENSOR MEASURING RANGES**

- **XCell Sensors**
  - 0-100% LEL
  - 0-2%, 0-5% Vol
  - 0-100, 0-500, 0-1000 ppm
  - 0-1000 ppm
  - 0-10, 0-50, 0-100, 0-500 ppm
  - 0-10 ppm
  - 0-25%
  - 0-25 ppm

**APPROVALS**

- **CLASSIFICATION DIVISIONS (US/CAN)**
  - ZONES (GLOBAL)
  - ENCLOSURE RATING
  - Markings vary by component. See manual for specific component markings.
  - Class I, II, III; Div 1 & 2, T4/T5/T6
  - Ex db nA IIC T5 Gb (Class I, Zone 1/Zone2)
  - Ex tb IIIC T85°C Db (Class II, Zone 21)
  - 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

**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.

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