



General Monitors

# S5000 Gas Monitor



The Safety Company

WE KNOW WHAT'S AT STAKE.

*A DETECTOR AS TOUGH  
AS YOU ARE...*



*"LOWER TEMPERATURE SPEC?...  
ARCTIC WINTERS"*

*"IT HAS TO BE THE MOST RELIABLE PIECE  
OF EQUIPMENT OUT HERE"*

*"IF THE DETECTOR DOESN'T WORK,  
WE DON'T, SO IT NEEDS TO WORK"*

*"I DON'T HAVE TIME TO BABYSIT  
A GAS DETECTOR"*



*IS THE ONLY DETECTOR  
YOU'LL NEED*

*"I WANT TO INSTALL IT  
AND FORGET ABOUT IT"*



# EXTREME DURABILITY

## ANYTIME. ANYWHERE.

 **BLUETOOTH®  
CONNECTION STATUS**

**MAGNET TOUCHPOINT**

**INSTRUMENT STATUS  
INDICATORS**



Power



Fault



Alarm



**GAS READING**

**TOUCH BUTTON  
INTERFACE**

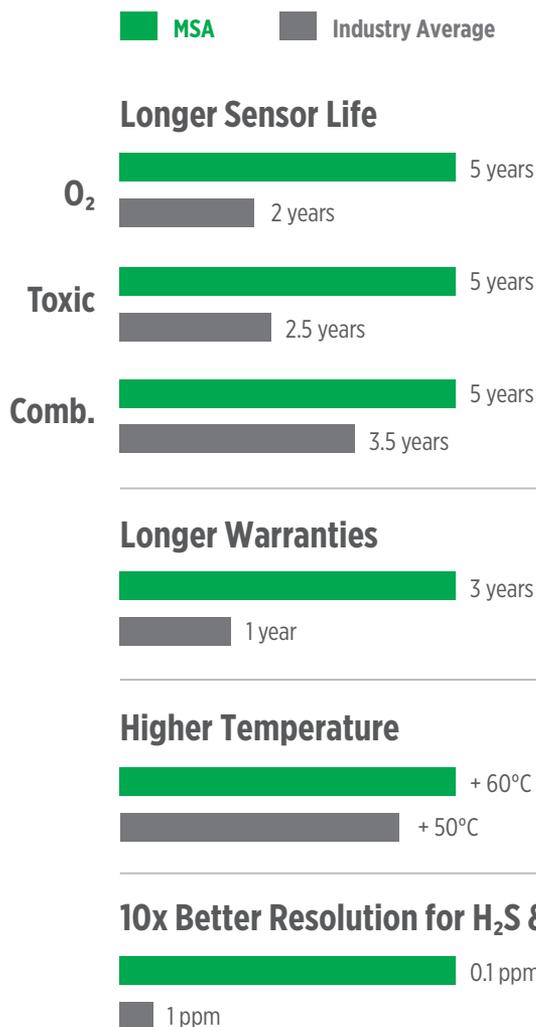
## STAY CONNECTED. WORK SMARTER.

- 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%



# ADVANCING SENSOR TECHNOLOGY

Up to **2 YEARS** between calibrations!



*\* Data may vary for different gases and configurations*

# RE-CALIBRATE YOUR EXPECTATIONS



## Adaptive Environmental Compensation (AEC)

### Longer Sensor Life

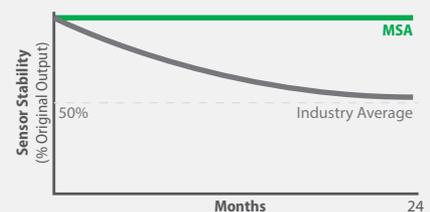


Automatically self-checks 4x/day

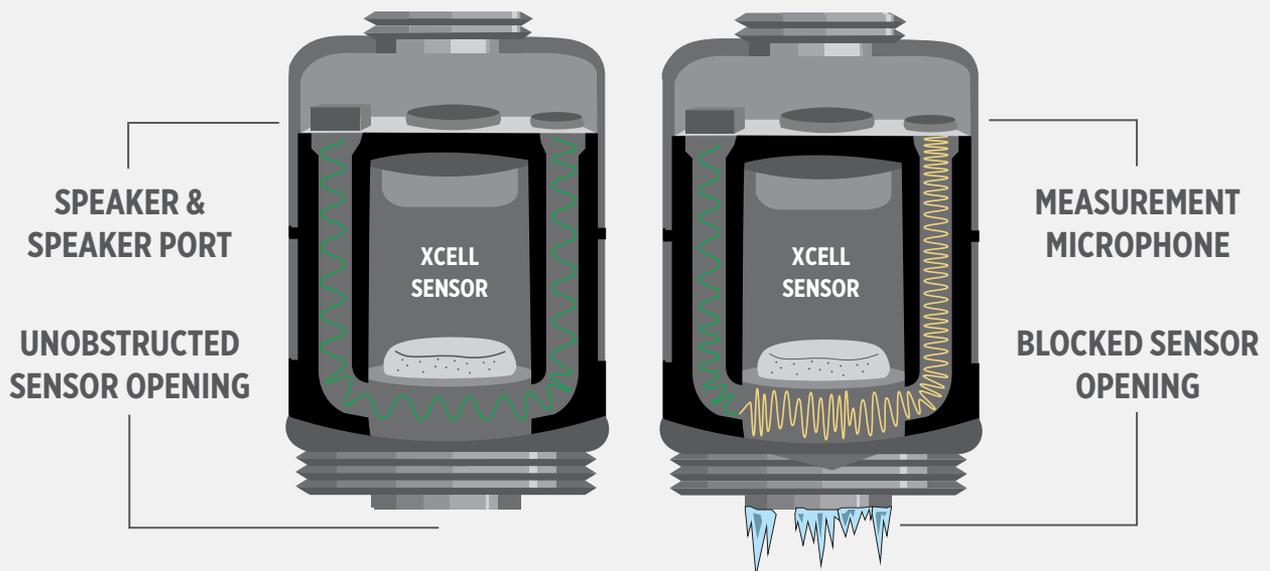
### Longer Calibration Cycles



### 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<sub>2</sub>S 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!

# STANDS OUT BUT STILL FITS IN

It just works. All day. Every day.

### SIMPLE RETROFITS

Identical footprint and wiring to S4000 Series

316 stainless steel

Passive and digital sensor options

Custom ID tag attachment

POWERED BY  
**XCell**  
SENSORS

WITH

**TruCal**  
TECHNOLOGY

**SafeSwap**<sup>®</sup>

Safely and quickly replace sensors without turning off the instrument

Dual XCell Sensor capability



S5000 w/passive sensor



S5000 w/IR400 and digital sensor

# IT MAKES SENSE... NO EXCEPTIONS



**EXPECTED LIFE**



**WARRANTY**



**PATENTS**

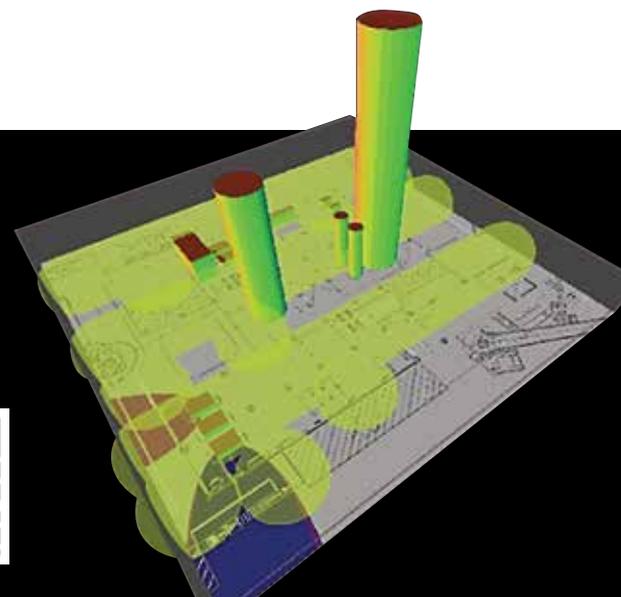
## We're going to help you save\*

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

## 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](https://MSAsafety.com/gas-mapping)



\* Based on 10 sensors and 2 sensors/transmitter

# S5000 Gas Monitor

## Specifications

Product Specifications																																	
<b>COMBUSTIBLE GAS SENSOR TYPE</b>	Catalytic Bead (passive comb., XCell comb.) Infrared (IR400)																																
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<b>CLASSIFICATIONS DIVISIONS (US/CAN)</b>	See manual for complete CSA listings. Class I, Div 1&2, Groups A, B, C & D T5/T4; Class II, Div 1&2, Groups E, F & G, T6; Class III Type 4X, IP66																																
<b>US ZONES</b>	Class I, Zone 1 AEx db IIC T5 Gb Class I, Zone 2 AEx nA nC IIC T4 Gc Zone 21 AEx tb IIIC T85°C Db																																
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<b>APPROVALS</b>	CSA, FM*, ATEX, IECEX, INMETRO, ABS, DNV-GL Marine, CE Marking. Suitable for SIL 2																																
Dimensions																																	
<b>HOUSING (W x H x D)</b>	6.37" x 5.38" x 4.25" (162 x 137 mm x 108 mm)																																
<b>W/PASSIVE SENSOR</b>	6.37" x 7.62" x 4.25" (162 x 193 mm x 108 mm)																																
<b>W/DIGITAL SENSOR</b>	6.37" x 10.4" x 4.25" (162 x 265 mm x 108 mm)																																
<b>WEIGHT</b>	8.0 lb. (3.6 kg), 316 SS																																

Environmental Specifications			
<b>OPERATING TEMPERATURE RANGE**</b>	<b>Transmitter</b>	-55°C to +75°C	
	<b>CB (sintered, Zones)</b>	-40°C to +70°C	
	<b>CB (screened, Div)</b>	-40°C to +75°C	
	<b>MOS (sintered, Zones)</b>	-40°C to +70°C	
	<b>MOS (screened, Div)</b>	-40°C to +75°C	
	<b>IR (CSA)</b>	-40°C to +75°C	
	<b>IR (ATEX/IECEX)</b>	-60°C to +75°C	
	<b>XCell (Comb)</b>	-55°C to +60°C	
<b>XCell (Toxic/O<sub>2</sub>)</b>	-40°C to +60°C		
<b>STORAGE TEMPERATURE RANGE</b>	<b>Housing, IR400, IR700, passive sensors</b>	-50°C to +85°C	
	<b>XCell sensors</b>	-40°C to +60°C	
<b>OPERATING HUMIDITY RANGE</b>	<b>XCell sensors, IR400, IR700</b>	10-95%	
	<b>Passive comb.</b>	10-90%	
	<b>Passive H<sub>2</sub>S</b>	0-95%	
Mechanical Specifications			
<b>INPUT POWER</b>	24 VDC nominal, 12 to 30 VDC		
<b>SIGNAL OUTPUT</b>	Dual 4-20 mA current source or sink, HART, Modbus, Bluetooth. <i>Optional: w/o Bluetooth</i>		
<b>RELAY RATINGS</b>	5 A @ 30 VDC; 5 A @ 220 VAC (3X) SPDT - fault, warn, alarm		
<b>RELAY MODES</b>	Common, discrete, horn		
<b>NORMAL MAX POWER</b>		<b>Without Relays</b>	<b>With Relays</b>
	<b>Passive comb.</b>	5.0 W	6.0 W
	<b>Passive MOS</b>	9.8 W	10.8 W
	<b>IR400/IR700</b>	7.9 W	8.9 W
	<b>XCell comb.</b>	5.0 W	6.0 W
	<b>XCell toxic &amp; O<sub>2</sub></b>	2.6 W	3.6 W
	<b>IR400/IR700 + XCell comb.</b>	10.8 W	11.8 W
	<b>IR400/IR700 + XCell toxic or O<sub>2</sub></b>	8.6 W	9.6 W
	<b>Dual XCell toxic or O<sub>2</sub></b>	3.3 W	4.3 W
<b>Dual XCell comb.</b>	7.4 W	8.4 W	
<b>XCell comb. + XCell toxic or O<sub>2</sub></b>	5.7 W	6.7 W	
<b>STATUS INDICATORS</b>	4-digit scrolling LED, icons depicting fault, warn, alarm, Bluetooth, 1 and 2 to indicate sensor reading displayed		
<b>RS-485 OUTPUT</b>	Modbus RTU, suitable for linking up to 128 units or up to 247 units with repeaters		
<b>BAUD RATE</b>	2400, 4800, 9600, 19200, 38400, 115200		
<b>HART</b>	HART 7, HART device description language available		
<b>FAULTS MONITORED</b>	Low supply voltage, RAM checksum error, flash checksum error, EEPROM error, internal circuit error, relay, invalid sensor configuration, sensor faults, calibration faults, analog output mismatch fault		
<b>CABLE REQUIREMENTS</b>	3-wire shielded cable for single sensor and 4-wire shielded cable for dual sensor configurations. Accommodates up to 12 AWG or 4 mm <sup>2</sup> . Refer to manual for mounting distances.		

\* See manual for FM approved sensors.

\*\* See data sheet for complete list.

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 is a registered trademark of MSA Technology, LLC in the US, Europe, and other Countries. For all other trademarks visit <https://us.msasafety.com/Trademarks>.

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