



General Monitors

S5000 Gas Monitor



*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



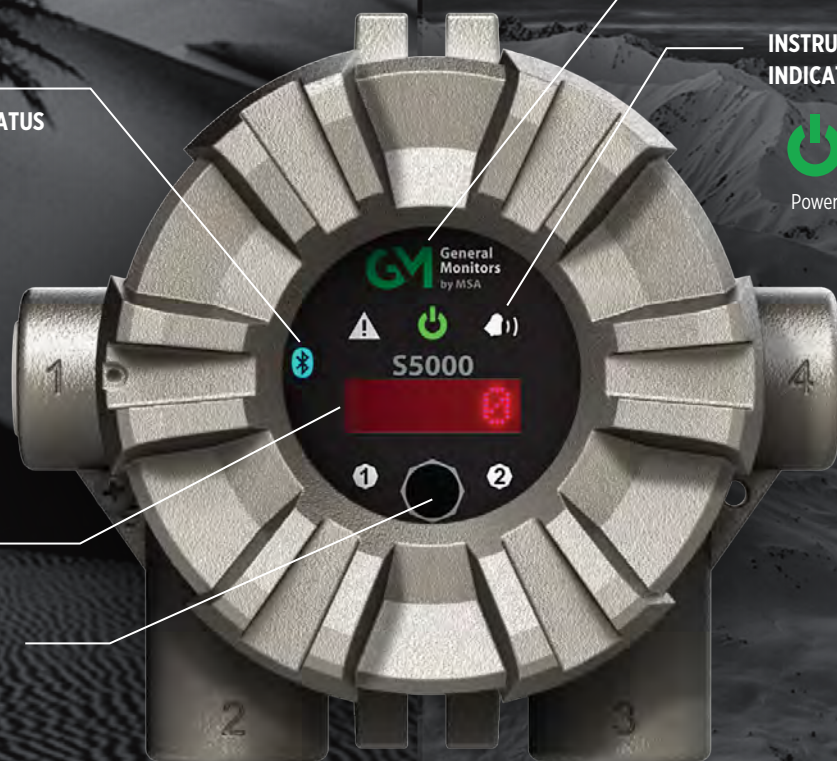
Power



Fault



Alarm



GAS READING

TOUCH BUTTON
INTERFACE

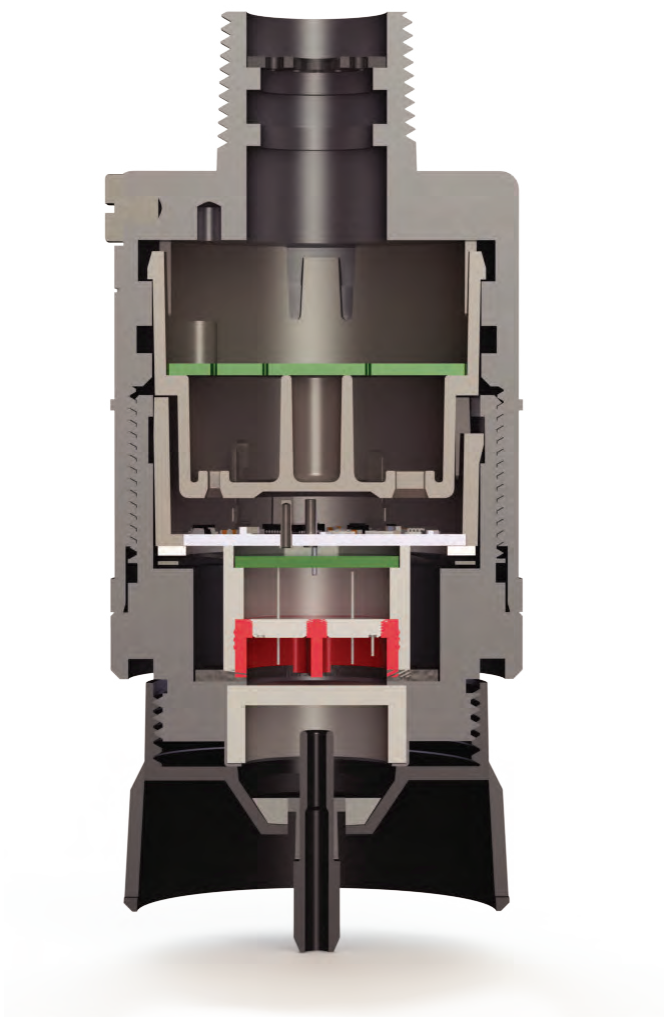
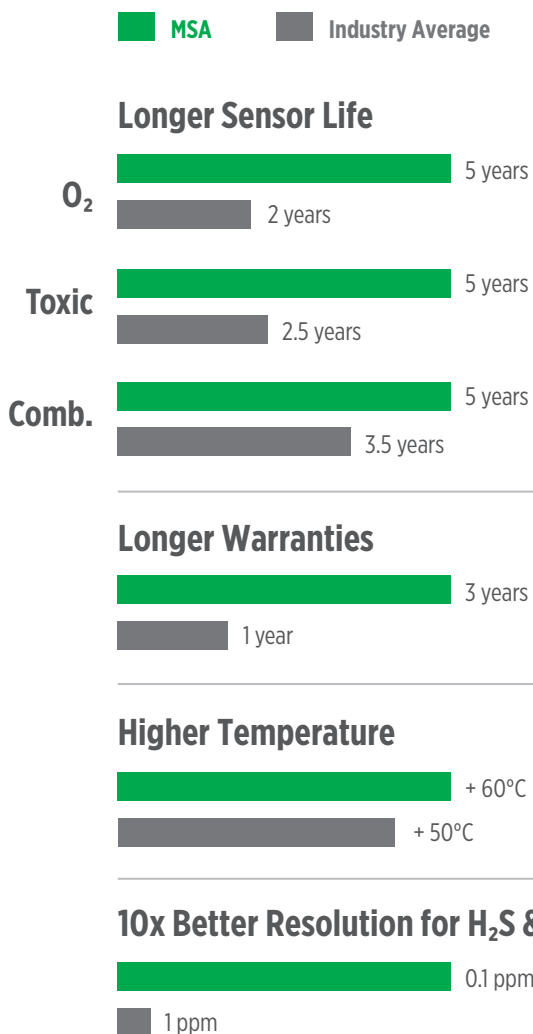
STAY CONNECTED. WORK SMARTER.

- 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



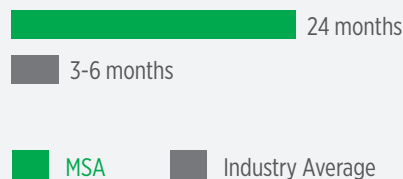
Adaptive Environmental Compensation (AEC)

Longer Sensor Life

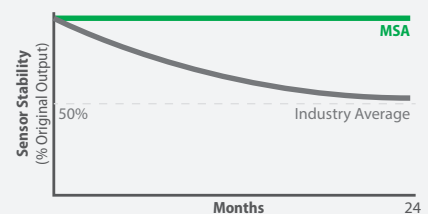


Automatically self-checks 4x/day

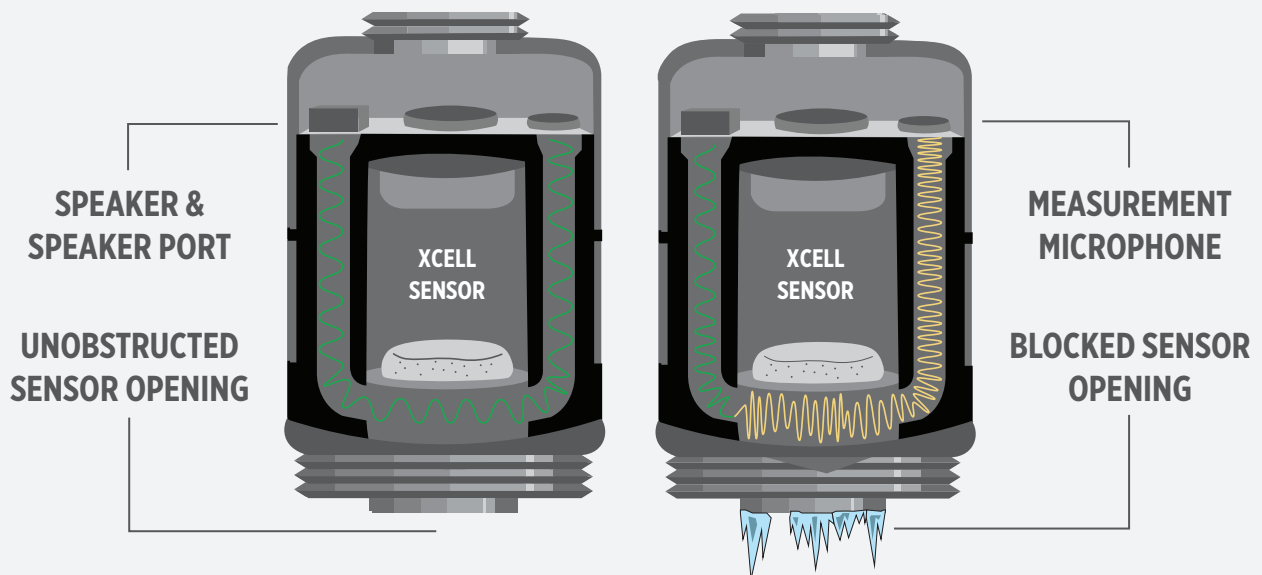
Longer Calibration Cycles



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. H₂S 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[®]

Safely and quickly replace sensors without turning off the instrument

Dual XCell Sensor capability



IT MAKES SENSE... NO EXCEPTIONS



EXPECTED LIFE



WARRANTY



PATENTS

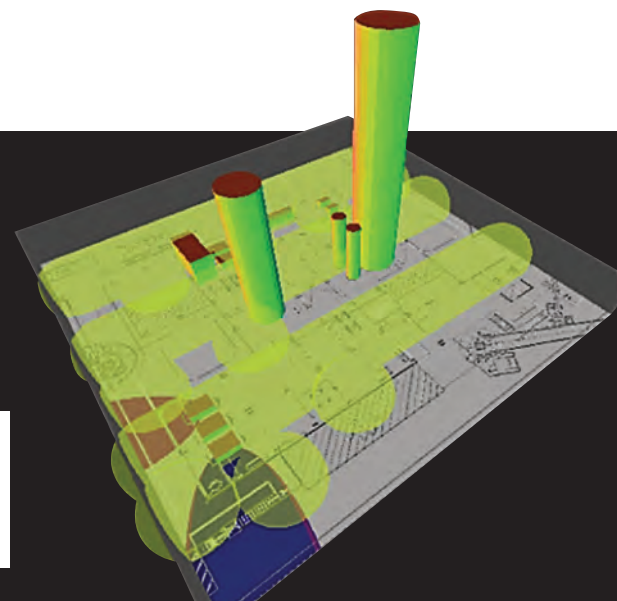
We're going to help you save*

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

Questions about sensor placement?

MSA's fire and gas 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

S5000 Gas Monitor

Specifications

Product Specifications	
COMBUSTIBLE GAS SENSOR TYPE	Catalytic Bead (passive comb., XCell comb.) Infrared (IR400)
TOXIC GAS & OXYGEN SENSOR TYPE	<p>XCell Toxic Ammonia (NH₃), Carbon Monoxide (CO), Carbon Monoxide (CO) H₂-resist., Chlorine (Cl₂), Chlorine Dioxide (ClO₂), Sulfur Dioxide (SO₂)</p> <p>XCell Toxic, Echem, Passive MOS Hydrogen Sulfide (H₂S)</p> <p>XCell O₂ Oxygen (O₂)</p> <p>Echem Ammonia (NH₃), Ethylene Oxide (ETO), Hydrogen (H₂), Hydrogen Chloride (HCl), Hydrogen Cyanide (HCN), Hydrogen Fluoride (HF), Nitrogen Oxide (NO), Nitrogen Dioxide (NO₂), Sulfur Dioxide (SO₂)</p>
SENSOR MEASURING RANGES	<p>Combustible 0-100% LEL (CB, IR)</p> <p>Cl₂ 0-5, 0-10, 0-20 ppm</p> <p>ClO₂ 0-3 ppm</p> <p>CO 0-100, 0-500, 0-1000 ppm</p> <p>CO, H₂-resistant 0-100 ppm</p> <p>ETO 0-10 ppm</p> <p>H₂ 0-1000 ppm</p> <p>HCl 0-50 ppm</p> <p>HCN 0-50 ppm</p> <p>H₂S 0-10, 0-20, 0-50, 0-100, 0-500 ppm</p> <p>HF 0-10 ppm</p> <p>NH₃ 0-100 ppm, 0-1000 ppm</p> <p>NO 0-100 ppm</p> <p>NO₂ 0-10 ppm</p> <p>O₂ 0-25%</p> <p>SO₂ 0-25, 0-100 ppm</p>
CLASSIFICATIONS DIVISIONS (US/CAN)	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
US ZONES	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
CANADIAN ZONES/ATEX/IECEX	Ex db IIC T5 Gb Ex nA nC IIC T4 Gc Ex tb IIIC T85°C Db
WARRANTY	<p>S5000 transmitter 2 years</p> <p>XCell Sensors 3 years</p> <p>Passive comb., MOS, IR400 2 years</p> <p>Echem sensors Varies by gas</p>
APPROVALS	CSA, FM*, ATEX, IECEX, INMETRO, ABS, DNV-GL Marine, CE Marking. Suitable for SIL 2
Dimensions	
HOUSING (W x H x D)	6.37" x 5.38" x 4.25" (162 x 137 mm x 108 mm)
W/PASSIVE SENSOR	6.37" x 7.62" x 4.25 (162 x 193 mm x 108 mm)
W/DIGITAL SENSOR	6.37" x 10.4" x 4.25" (162 x 265 mm x 108 mm)
WEIGHT	8.0 lb. (3.6 kg), 316 SS

Environmental Specifications			
OPERATING TEMPERATURE RANGE**	Transmitter	-55°C to +75°C	
	CB (sintered, Zones)	-40°C to +70°C	
	CB (screened, Div)	-40°C to +75°C	
	MOS (sintered, Zones)	-40°C to +70°C	
	MOS (screened, Div)	-40°C to +75°C	
	IR (CSA)	-40°C to +75°C	
	IR (ATEX/IECEX)	-60°C to +75°C	
	XCell (Comb)	-55°C to +60°C	
XCell (Toxic/O₂)	-40°C to +60°C		
STORAGE TEMPERATURE RANGE	Housing, IR400, passive sensors	-50°C to +85°C	
	XCell sensors	-40°C to +60°C	
OPERATING HUMIDITY RANGE	XCell sensors, IR400	10-95%	
	Passive comb.	10-90%	
	Passive H₂S	0-95%	
Mechanical Specifications			
INPUT POWER	24 VDC nominal, 12 to 30 VDC		
SIGNAL OUTPUT	Dual 4-20 mA current source or sink, HART, Modbus, Bluetooth. <i>Optional: w/o Bluetooth</i>		
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
	Passive comb.	5.0 W	6.0 W
	Passive MOS	9.8 W	10.8 W
	IR400	7.9 W	8.9 W
	XCell comb.	5.0 W	6.0 W
	XCell toxic & O₂	2.6 W	3.6 W
	IR400 + XCell comb.	10.8 W	11.8 W
	IR400 + XCell toxic or O₂	8.6 W	9.6 W
Dual XCell toxic or O₂	3.3 W	4.3 W	
Dual XCell comb.	7.4 W	8.4 W	
XCell comb. + XCell toxic or O₂	5.7 W	6.7 W	
STATUS INDICATORS	4-digit scrolling LED, icons depicting fault, warn, alarm, Bluetooth, 1 and 2 to indicate sensor reading displayed		
RS-485 OUTPUT	Modbus RTU, suitable for linking up to 128 units or up to 247 units with repeaters		
BAUD RATE	2400, 4800, 9600, 19200, 38400, 115200		
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, analog output mismatch fault		
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 mm ² . 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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