General Monitors

S5000 Gas Monitor

MSA
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.

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%

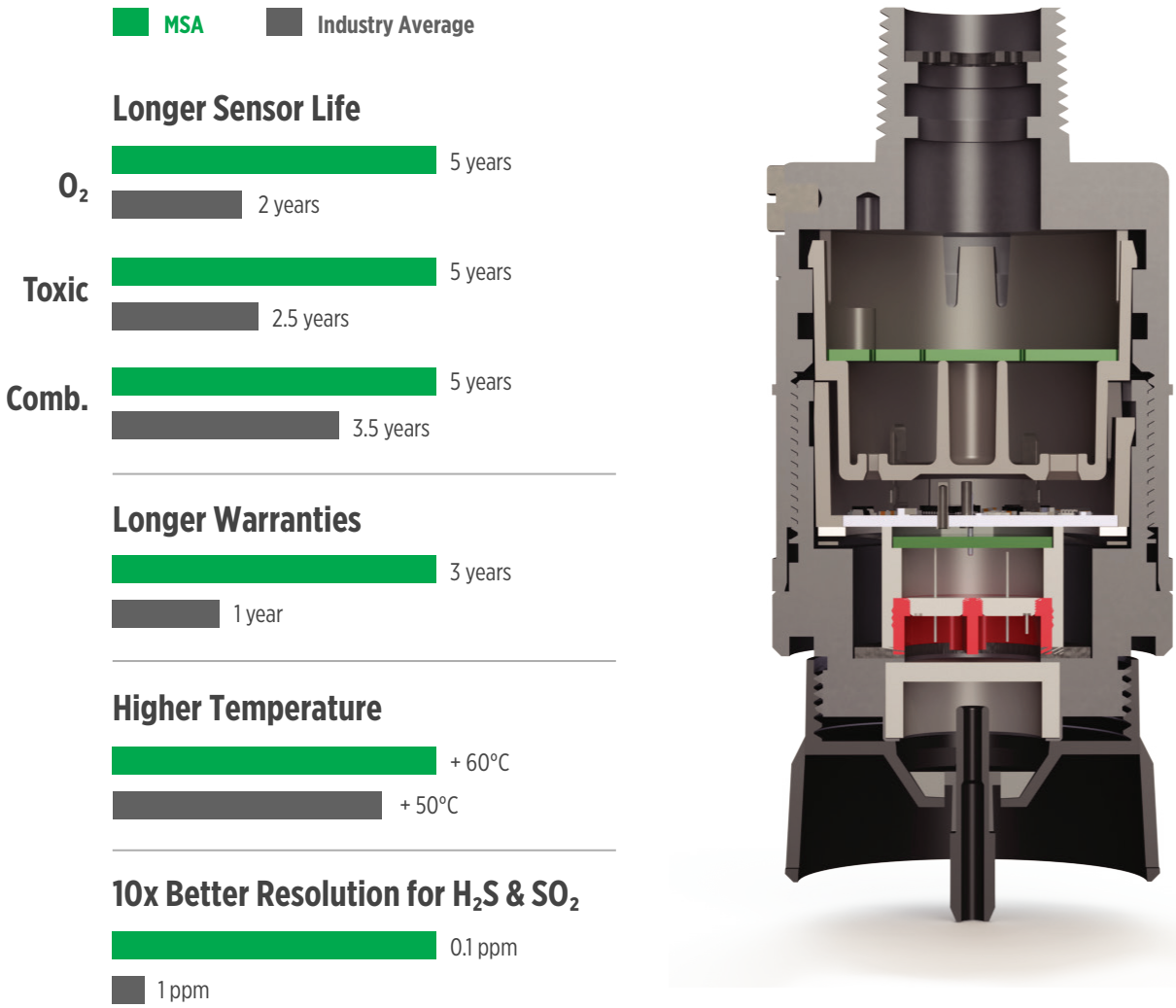
GET IT ON Google Play

Download on the App Store

ADVANCING SENSOR TECHNOLOGY

Up to **2 YEARS** between calibrations!

XCell® SENSORS



** Data may vary for different gases and configurations*

General Monitors by MSA

RE-CALIBRATE YOUR EXPECTATIONS

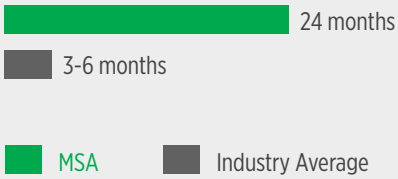
TruCal® TECHNOLOGY

Adaptive Environmental Compensation (AEC)

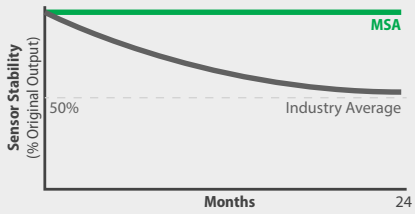
Longer Sensor Life

Automatically self-checks 4x/day

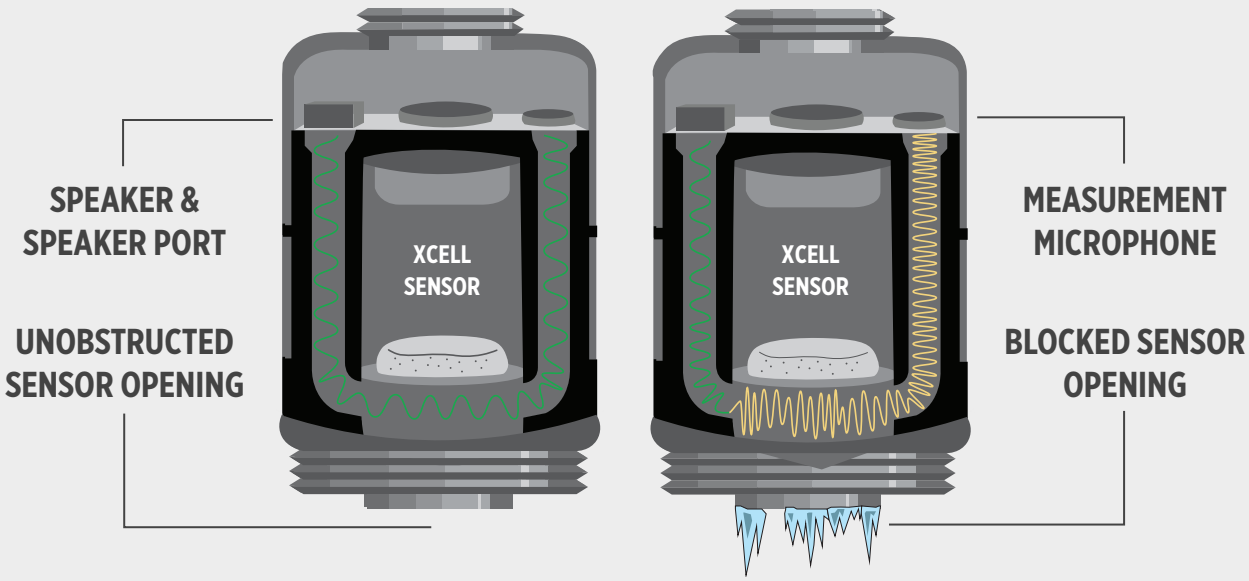
Longer Calibration Cycles



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!

STANDS OUT BUT STILL FITS IN

It just works. All day. Every day.

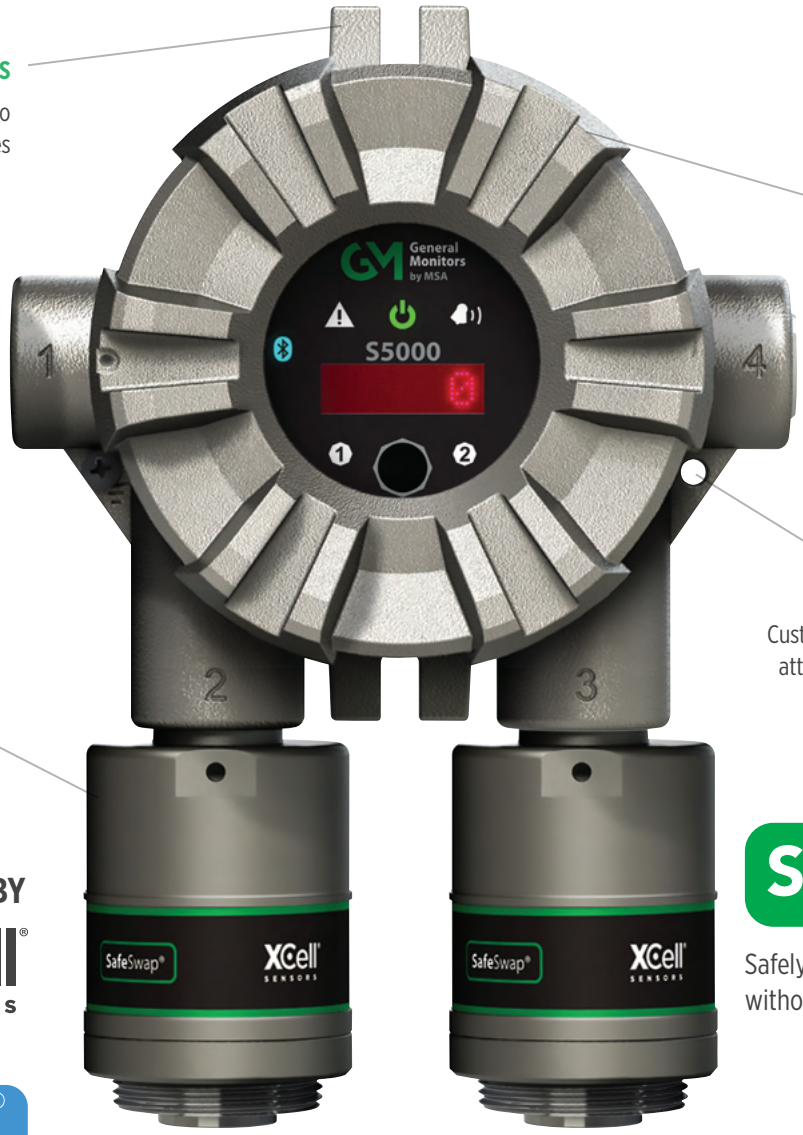
SIMPLE RETROFITS

Identical footprint and wiring to S4000 Series

316 stainless steel

Passive and digital sensor options

Custom ID tag attachment



POWERED BY

XCell SENSORS

WITH

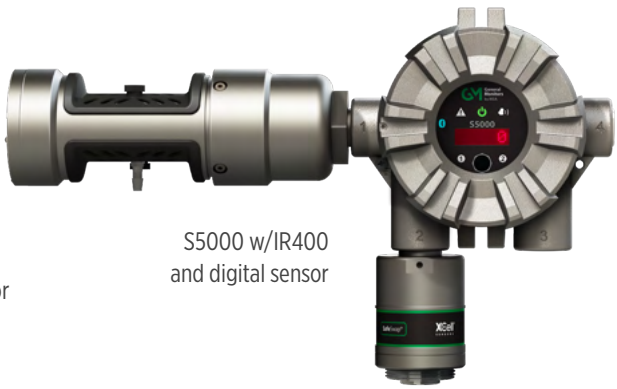
TruCal® TECHNOLOGY

SafeSwap®

Safely and quickly replace sensors without turning off the instrument

Dual XCell Sensor capability

S5000 w/passive sensor



S5000 w/IR400 and digital sensor

General Monitors by MSA

IT MAKES SENSE... NO EXCEPTIONS

EXPECTED LIFE

WARRANTY

PATENTS

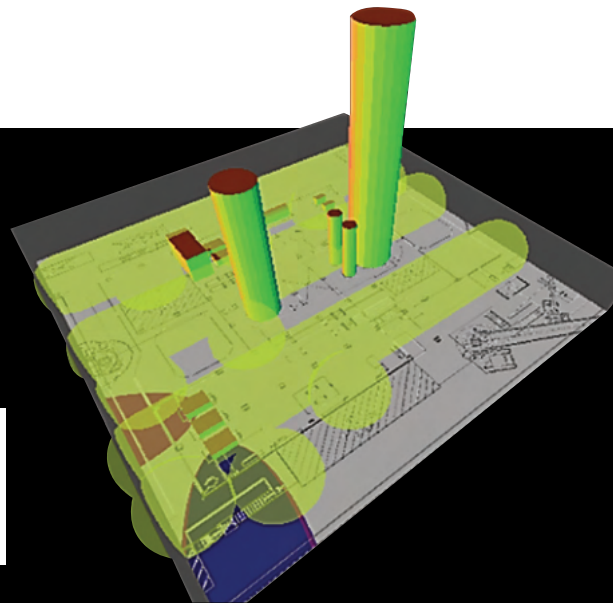
We're going to help you save*

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	**XCell Toxic**	Ammonia (NH_3), Carbon Monoxide (CO), Carbon Monoxide (CO) H_2-resist., Chlorine (Cl_2), Chlorine Dioxide (ClO_2), Sulfur Dioxide (SO_2)
	XCell Toxic, Echem, Passive MOS	Hydrogen Sulfide (H_2S)
	XCell O_2	Oxygen (O_2)
	Echem	Ammonia (NH_3), Ethylene Oxide (ETO), Hydrogen (H_2), Hydrogen Chloride (HCl), Hydrogen Cyanide (HCN), Hydrogen Fluoride (HF), Nitrogen Oxide (NO), Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2)
SENSOR MEASURING RANGES	**Combustible**	0-100% LEL (CB, IR)
	Cl_2	0-5, 0-10, 0-20 ppm
	ClO_2	0-3 ppm
	CO	0-100, 0-500, 0-1000 ppm
	CO, H_2-resistant	0-100 ppm
	ETO	0-10 ppm
	H_2	0-1000 ppm
	HCl	0-50 ppm
	HCN	0-50 ppm
	H_2S	0-10, 0-20, 0-50, 0-100, 0-500 ppm
	HF	0-10 ppm
	NH_3	0-100 ppm, 0-1000 ppm
	NO	0-100 ppm
	NO_2	0-10 ppm
	O_2	0-25%
	SO_2	0-25, 0-100 ppm
CLASSIFICATIONS	*See manual for complete CSA listings.*	
DIVISIONS (US/CAN)	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	**S5000 transmitter**	2 years
	XCell Sensors	3 years
	Passive comb., MOS, IR400	2 years
	Echem sensors	Varies by gas
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/O_2)	-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 H_2S	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. *Optional: w/o Bluetooth*		
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 & O_2	2.6 W	3.6 W
	IR400 + XCell comb.	10.8 W	11.8 W
	IR400 + XCell toxic or O_2	8.6 W	9.6 W
	Dual XCell toxic or O_2	3.3 W	4.3 W
	Dual XCell comb.	7.4 W	8.4 W
	XCell comb. + XCell toxic or O_2	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 mm2 *Refer to manual for mounting distances.*		

** See manual for FM approved sensors.*
*** See data sheet for complete list.*

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

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