

# S5000 Gas Monitor

Extreme Durability. Anytime. Anywhere.



General Monitors

Simple retrofits have identical footprint and wiring to S4000 Gas Monitor series.

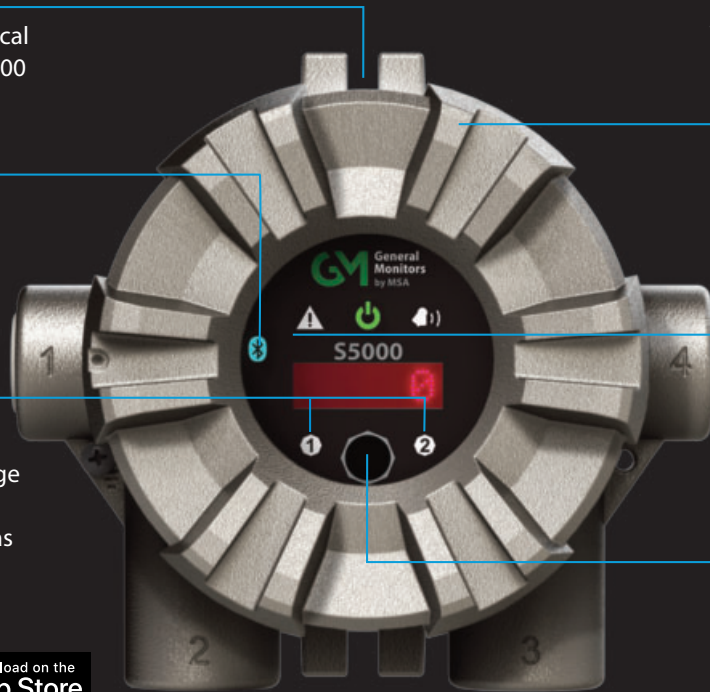
Wide operating temperature for extreme environments (-55°C to +75°C).

Bluetooth® wireless technology allows mobile device to act as HMI screen and controller via the X/S Connect App.

Instrument status indicators illuminate power, fault and alarm conditions.

Dual sensor capability increases detection coverage without increasing CAPEX expense. Remote mount gas sensors up to 100 m away.

Intuitive user experience with industry-first touch-button interface or familiar magnetic interface.



X/S Connect App

Reduce setup time by at least 50% with the X/S Connect App

## Advanced Sensor Technology

POWERED BY

**XCell**  
SENSORS

WITH

**TruCal**

- Patented XCell Sensors with TruCal technology\* extend calibration cycles for as long as 18 months, actively monitor sensor integrity, and compensate for environmental factors and electrochemical sensor drift.
- Diffusion Supervision sends acoustic signal every 6 hours to check that sensor inlet isn't obstructed so gas can reach the sensor.
- Worry-free operation; automatically self-checks four times per day.
- Three-year warranty and five-year expected life for XCell Sensors.
- SafeSwap enables safe and quick XCell Sensor replacement without powering-off gas detector.

## Applications

- Compressor stations
- LNG/LPG processing and storage
- CNG maintenance facilities
- Oil well logging
- Drilling and production platforms
- Petrochemical
- Fuel loading facilities
- Refineries

**SafeSwap**

\*Only CO & H<sub>2</sub>S XCell Sensors



The Safety Company

WE KNOW WHAT'S AT STAKE.

# S5000 Gas Monitor



## Specifications

PRODUCT SPECIFICATIONS			
COMBUSTIBLE GAS SENSOR TYPE	Catalytic Bead (Passive Comb, XCell Comb) Infrared (IR400)		
TOXIC GAS SENSOR TYPE	Carbon Monoxide CO (XCell Toxic) Carbon Monoxide CO H <sub>2</sub> -Resistant (XCell Toxic) Hydrogen Sulfide H <sub>2</sub> S (Passive MOS, XCell Toxic) Oxygen O <sub>2</sub> (XCell O <sub>2</sub> ) Sulfur Dioxide SO <sub>2</sub> (XCell SO <sub>2</sub> )		
SENSOR MEASURING RANGES	Combustible: 0-100% LEL (CB, IR) CO: 0-100, 0-500, 0-1000 ppm CO H <sub>2</sub> -Resist: 0-100 ppm H <sub>2</sub> S MOS: 0-20, 0-50, 0-100 ppm H <sub>2</sub> S XCell: 0-10, 0-20, 0-50, 0-100 ppm O <sub>2</sub> : 0-25% SO <sub>2</sub> : 0-25 ppm		
TYPICAL SENSOR LIFE	5 years – catalytic bead, MOS, XCell Sensor 10 years - infrared		
SENSOR PERFORMANCE*	T90 (TYPICAL)	REPEATABILITY	ZERO DRIFT (PER YEAR)
PASSIVE COMB	<30 sec.	+/- 3% LEL	<5% LEL
PASSIVE MOS	<60 sec.	+/- 2 ppm	<0.1 ppm
IR400	<3 sec.	+/- 3% LEL	<2% LEL
XCELL COMB	<30 sec.	+/- 1% LEL	<5% LEL
XCELL H <sub>2</sub> S	<23 sec.	+/- 3%	<1% full scale
XCELL CO	<11 sec.	+/- 3%	<1% full scale
XCELL O <sub>2</sub>	<11 sec.	≤ +/- 0.1% Vol	0.2% Vol
XCELL SO <sub>2</sub>	<6 sec.	+/- 1%	≤1%FS per mo.
APPROVALS CLASSIFICATION	<b>Divisions (US/Canada)</b> 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 <b>Canadian Zones/ATEX/IECEX</b> Ex db IIC T5 Gb Ex nA nC IIC T4 Gc Ex tb IIIC T85°C Db (see manual for complete CSA listings)		
CE MARKING DIRECTIVES	Complies with EMC, RED, ATEX		
WARRANTY	S5000 transmitter: 2 years XCell Sensors: 3 years Passive Comb, Passive MOS, IR400: 2 years		
APPROVALS	CSA, ATEX, IECEx, INMETRO, ABS, DNV-GL Marine, CE Marking. Complies with C22.2 No. 152, FM 6320, ANSI/ISA/CSA/IEC/EN 60079-29-1, ANSI/ISA 12.13.01. Suitable for SIL 2.		
DIMENSIONS			
HOUSING (W X H) W/ PASSIVE SENSOR W/ DIGITAL SENSOR	6.37" x 5.38" [162 mm x 137 mm] 6.37" x 7.62" [162 mm x 193 mm] 6.37" x 10.4" [162 mm x 265 mm]		
LID (DEPTH)	4.25" [108 mm]		
WEIGHT	8.0 lbs (3.6kg) - 316 SS		

\* At ambient conditions

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 <sub>2</sub> ): -40°C to +60°C
STORAGE TEMPERATURE RANGE	-50°C to +85°C (housing, IR400 and passive sensors) -40°C to +60°C (XCell sensors)
OPERATING HUMIDITY RANGE	10 to 95% (XCell sensors, IR400) 10 to 90% (Passive Comb) 0 to 95% (Passive H <sub>2</sub> S)
MECHANICAL SPECIFICATIONS	
INPUT POWER	24 VDC nominal, 12 to 30 VDC
SIGNAL OUTPUT	Dual 4-20 mA current source, HART, Modbus, Bluetooth. Optional: w/o Bluetooth
RELAY RATINGS	5A @ 30VDC; 5A @220 VAC (3X) SPDT – fault, warn, alarm
RELAY MODES	Common, discrete, horn
NOMINAL MAX POWER (W/ RELAYS)	Passive Comb 6.0 W Passive MOS 10.8 W IR400 8.9 W XCell Comb 6.0 W XCell Toxic & O <sub>2</sub> 3.6 W IR400 + XCell Comb 11.8 W IR400 + XCell Toxic or O <sub>2</sub> 9.6 W Dual XCell Toxic or O <sub>2</sub> 4.3 W Dual XCell Comb 8.4 W XCell Comb + XCell Toxic or O <sub>2</sub> 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 Refer to manual for mounting distances.

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.