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. Download the X/S Connect App from the Google Play store.

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.

GET IT ON
Google Play
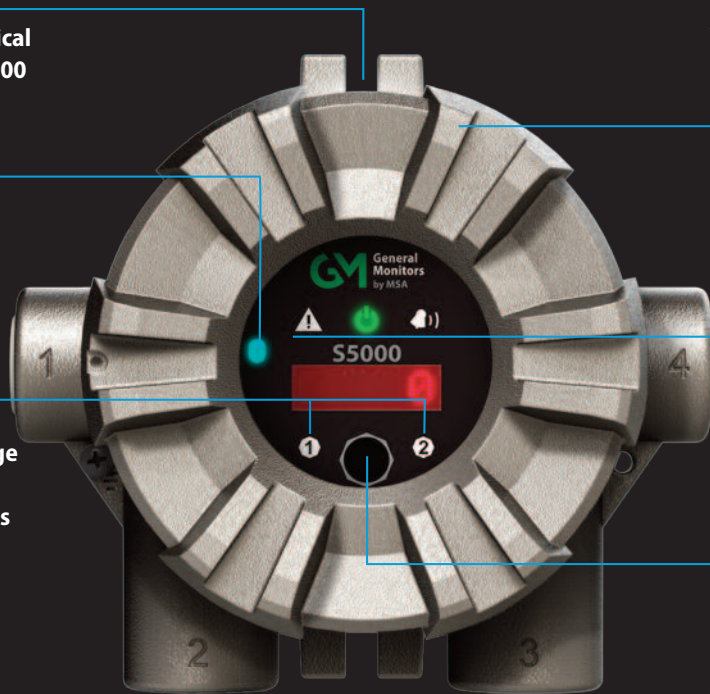
Reduce setup time by at least 50% with the X/S Connect App

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.
- 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.

SafeSwap®
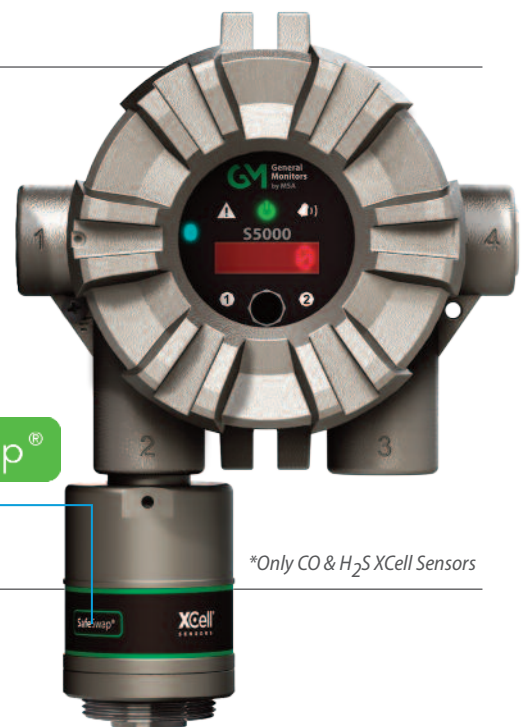
Only CO & H$_2$S XCell Sensors

Applications

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

MSA
The Safety Company

GM**S5000**.com

S5000 **Gas Monitor**

Specifications

General **Monitors** by MSA

PRODUCT SPECIFICATIONS

COMBUSTIBLE GAS SENSOR TYPE	Catalytic Bead (Passive Comb, XCell Comb) Infrared (IR400)
TOXIC GAS SENSOR TYPE	Hydrogen Sulfide H_2S (Passive MOS, XCell Toxic) Carbon Monoxide CO (XCell Toxic) Carbon Monoxide CO H_2-Resistant (XCell Toxic) Oxygen O_2 (XCell O_2)
SENSOR MEASURING RANGES	All Combustible: 0-100% LEL H_2S MOS: 0-20, 0-50, 0-100 ppm H_2S XCell: 0-10, 0-50, 0-100 ppm CO: 0-100, 0-500, 0-1000 ppm CO H_2-Resist: 0-100 ppm O_2: 0-25%
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	<22 sec.	≤ +/- 1% LEL	<5% LEL
XCELL H_2S	<23 sec.	+/- 5%	<1% full scale
XCELL CO	<9 sec.	+/- 5%	<1% full scale
XCELL O_2	<15 sec.	≤ +/- 0.3% Vol	0.2% Vol

APPROVALS CLASSIFICATION	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 Class II, 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 *(see manual for complete CSA listings)*
WARRANTY	S5000 transmitter: 2 years XCell Sensors: 3 years Passive Comb, Passive MOS, IR400: 2 years
APPROVALS	CSA, ATEX, IECEx, CE Marking Complies with C22.2 No. 152, FM 6320, IEC/EN 60079-29-1, ANSI/ISA 12.13.01. Suitable for SIL 2

ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE RANGE	Passive Comb (sintered): -40°C to +70°C Passive Comb (screened): -40°C to +75°C Passive MOS (sintered): -40°C to +70°C Passive MOS (screened): -40°C to +75°C IR400 (CSA): -40°C to +75°C IR400 (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	S5000: -45°C to +85°C (includes housing and all sensors)
OPERATING HUMIDITY RANGE	10-95% (XCell Toxics & O_2) 0-95% (Passive & XCell Comb, IR400, Passive MOS)

*At ambient conditions

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_2	3.6 W
	IR400 + XCell Comb	11.8 W
	IR400 + XCell Toxic or O_2	9.6 W
	Dual XCell Toxic or O_2	4.3 W
	Dual XCell Comb	8.4 W
	XCell Comb + XCell Toxic or O_2	9.1 W

EMC DIRECTIVE	Complies with EN 50270, EN 61000-6-4, EN 61000-6-3
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.*

DIMENSIONS

6.37
2X R.155
5.38
2.70
1
4
2
3
4X 3/4 NPT
PASSIVE SENSOR

4.25
1.85
6.00
7.62
8 lbs (3.6 kg) - 316 SS
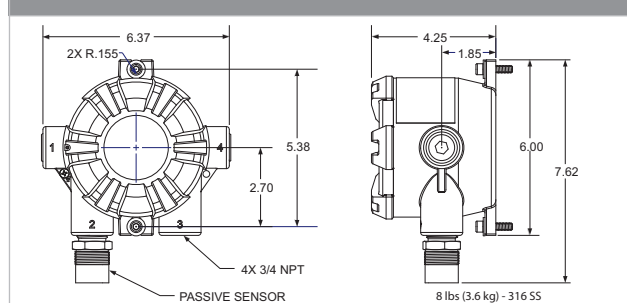
Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products. Specifications subject to change without notice.

ISO 9001 CERTIFIED Quality System

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