General Monitors® S5000 Gas Monitor

Extreme Durability. Anytime. Anywhere.

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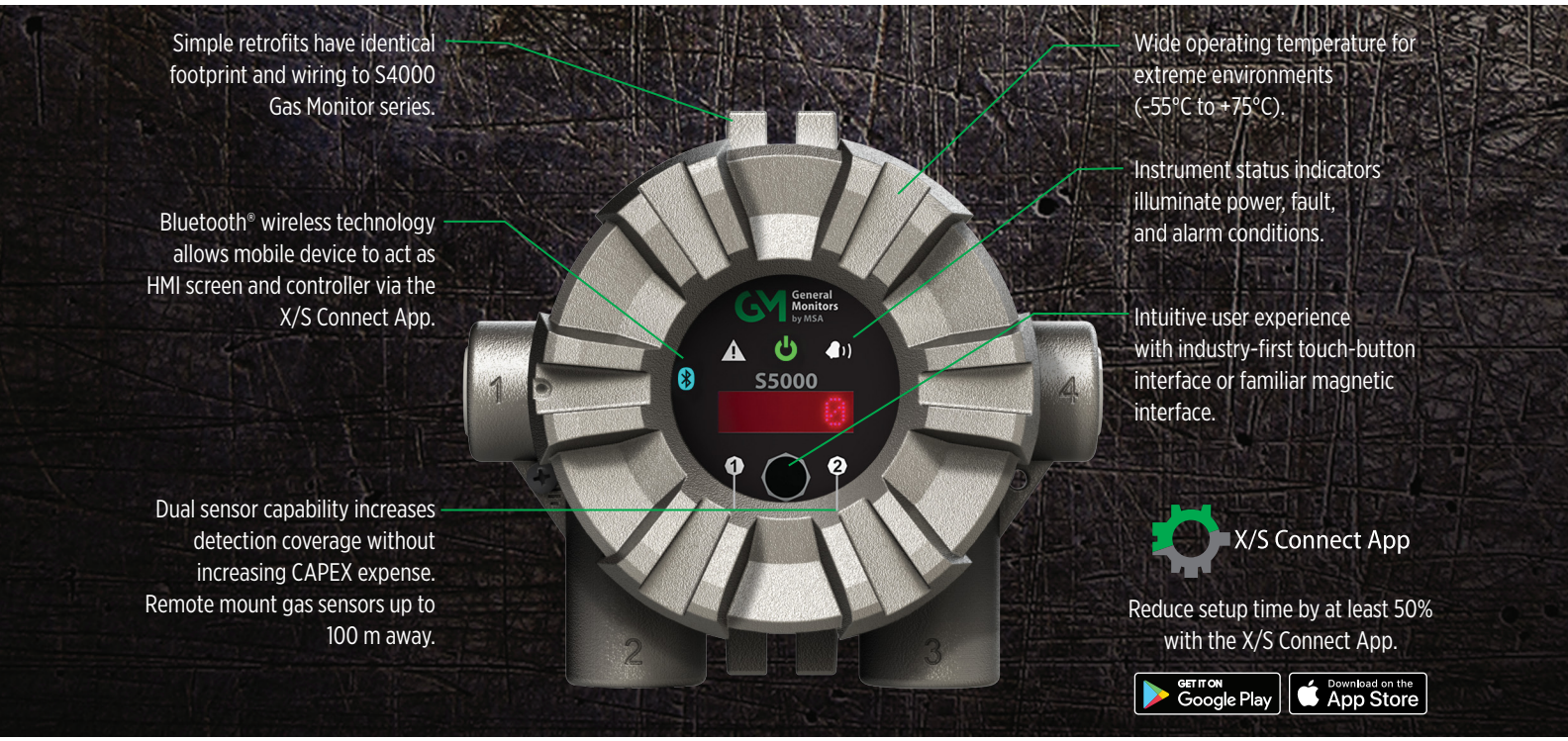

Advanced Sensor Technology

POWERED BY XCell® SENSORS

WITH TruCal® TECHNOLOGY

- Patented XCell H_2S and CO Sensors with TruCal technology extend calibration cycles for as long as 2 years, 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
- CNG maintenance facilities
- Drilling and production platforms
- Fuel loading facilities
- LNG/LPG processing and storage
- Oil well logging
- Petrochemical
- Refineries

SAFEGUARDING PEOPLE, PLACES & THE PLANET

General Monitors® S5000 Gas Monitor Specifications

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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-resistant, Chlorine (Cl_2), Sulfur Dioxide (SO_2) Chlorine Dioxide (ClO_2)
	Passive MOS, Echem, XCell Toxic	Hydrogen Sulfide (H_2S)
	XCell O_2	Oxygen (O_2)
	Electrochem	Ammonia (NH_3), Ethylene Oxide (ETO) , Hydrogen (H_2), Hydrogen Chloride (HCl), Hydrogen Cyanide (HCN), Hydrogen Fluoride (HF), Nitric Oxide (NO), Nitrogen Dioxide (NO_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
	HF	0-10 ppm
	H_2S	0-10, 0-20, 0-50, 0-100, 0-500 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/Zone 1&2, Groups A, B, C & D T5/T4; Class II, Div/Zone 1&2, Groups E, F & G, T6; Class III	
US ZONES	Type 4X, IP66 Class I, Zone 1 AEx db IIC T5 Gb Class I, Zone 2 AEx nA nC IIC T4 Gc	
CANADIAN ZONES/ ATEX/ IECEx	Zone 21 AEx tb IIIC T85°C Db 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. 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.	

*** See manual for FM-approved sensors*

Specifications subject to change without notice.

Dimensions	
HOUSING (W x H x D)	6.37" x 5.38" x 4.25" (162 x 137 x 108 mm)
W/PASSIVE SENSOR	6.37" x 7.62"x 4.25" (162 x 193 x 108 mm)
W/DIGITAL SENSOR	6.37" x 10.4" x 4.25"(162 x 265 x 108 mm)
W/IR400 IR SENSOR	14.8" x 6.0" x 4.25" (375 x 152 x 108 mm)
WEIGHT	8 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
RELATIVE HUMIDITY (NON-CONDENSING)	**XCell sensors, IR400,**	10-95%
	Passive combustible	0-95%
	Passive H_2S	15-95%

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	5A @ 30VDC; 5A @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, Device Description (DD) and Device Type Manager (DTM) 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.*		

MSA—The Safety Company

Established in 1914, MSA Safety Incorporated is the global leader in the development, manufacture, and supply of safety products that protect people and facility infrastructures. Many MSA products integrate a combination of electronics, mechanical systems, and advanced materials to protect users against hazardous or life-threatening situations. The company's comprehensive product line is used by workers around the world in a broad range of markets, including the oil, gas, and petrochemical industry, the fire service, the construction industry, mining, and the military. MSA's core products include self-contained breathing apparatus, fixed gas and flame detection systems, portable gas detection instruments, industrial head protection products, firefighter helmets and protective apparel, and fall protection devices. With 2020 revenues of $1.35 billion, MSA employs approximately 5,200 people worldwide. The company is headquartered north of Pittsburgh in Cranberry Township, PA, and has manufacturing operations in the United States, Europe, Asia, and Latin America. With more than 40 international locations, MSA realizes approximately half of its revenue from outside North America. For more information visit MSA's web site at www.MSAsafety.com.

Our Mission

MSA's mission is to see to it that men and women may work in safety and that they, their families, and their communities may live in health throughout the world.

MSA: SAFEGUARDING PEOPLE, PLACES & THE PLANET

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

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