

S5000 Gas Monitor

Extreme Durability. Anytime. Anywhere.



General Monitors

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

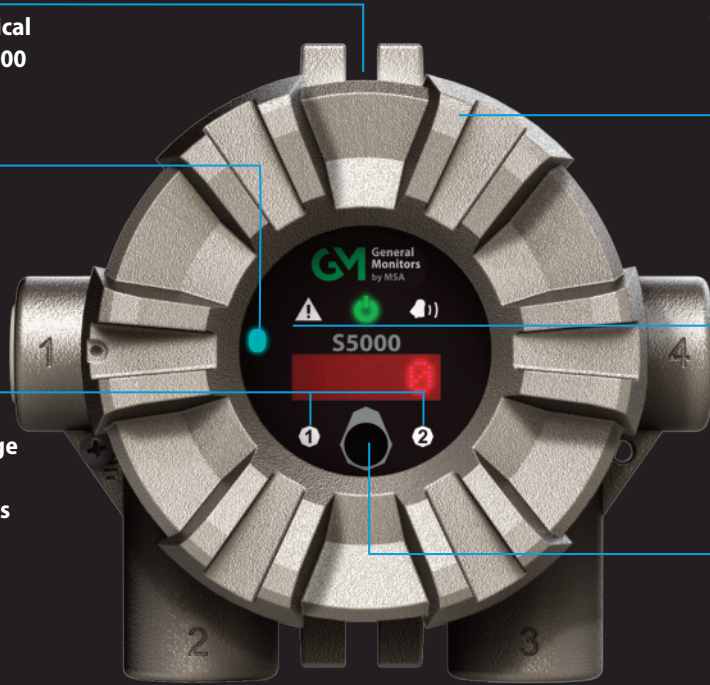
Wide operating temperature for extreme environments (-55°C to +75°C).

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.



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 & H₂S XCell Sensors

Applications

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



The Safety Company

GMS5000.com

S5000 Gas Monitor

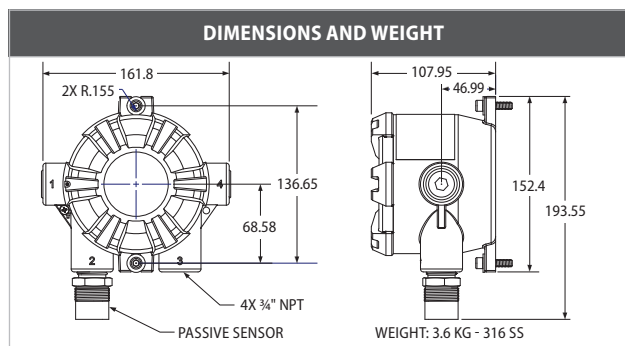
Specifications



| 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 ₂ -Resistant (XCell Toxic) Hydrogen Sulfide H ₂ S (Passive MOS, XCell Toxic) Oxygen O ₂ (XCell O ₂) | | |
| SENSOR MEASURING RANGES | All Combustible: 0–100% LEL H ₂ S MOS: 0–20, 0–50, 0–100 ppm H ₂ S 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* | T ₉₀ (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 ₂ S | <23 sec. | +/- 3% | <1% full scale |
| XCELL CO | <11 sec. | +/- 3% | <1% full scale |
| XCELL O ₂ | <11 sec. | ≤ +/- 0.1% 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 RED, FCC <i>(see manual for complete CSA listings)</i> | | |
| 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) | <table border="0"> <tr><td>Passive Comb</td><td>6.0 W</td></tr> <tr><td>Passive MOS</td><td>10.8 W</td></tr> <tr><td>IR400</td><td>8.9 W</td></tr> <tr><td>XCell Comb</td><td>6.0 W</td></tr> <tr><td>XCell Toxic & O₂</td><td>3.6 W</td></tr> <tr><td>IR400 + XCell Comb</td><td>11.8 W</td></tr> <tr><td>IR400 + XCell Toxic or O₂</td><td>9.6 W</td></tr> <tr><td>Dual XCell Toxic or O₂</td><td>4.3 W</td></tr> <tr><td>Dual XCell Comb</td><td>8.4 W</td></tr> <tr><td>XCell Comb + XCell Toxic or O₂</td><td>9.1 W</td></tr> </table> | 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 |
| 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 type 2, EN 61000-6-4 | | | | | | | | | | | | | | | | | | | | |
| 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 <i>Refer to manual for mounting distances.</i> | | | | | | | | | | | | | | | | | | | | |



Subject to change without notice
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