

# GDS-68XP Process Gas Monitor for Low Oxygen Applications

- ✱ Designed for installation in Class I, Div 1 Hazardous Locations
- ✱ Reliable electrochemical sensor technology for accurate readings
- ✱ High quality diaphragm pump with 24VDC brushless motor
- ✱ 5A fault alarm and 0mA output on low flow or sensor fault
- ✱ Built-in flow meter provides visual confirmation of sample flow rate
- ✱ Prompted calibration procedure and cal port for easy maintenance
- ✱ Accepts sample lines up to 100 ft in length
- ✱ Optional 3x alarm relays and MODBUS slave interface
- ✱ GASMAX auto-recognition of Smart Sensors
- ✱ Periodic measurement periods from 5 minutes to four hours
- ✱ Calibration in hazardous area only requires simple magnetic wand
- ✱ Manufactured in USA

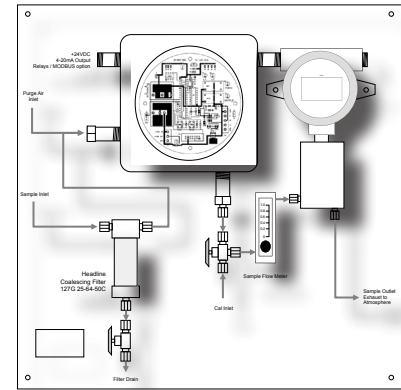
## GDS-68XP Process Gas Monitor

The GDS-68XP H<sub>2</sub>S Monitor for Low Oxygen Applications uses sequencing technology to directly measure hydrogen sulfide, mercaptans or other gases in a stream that contains low levels of oxygen. By alternatively applying sample gas and clean purge air to the sensor, the GDS-68XP delivers longer sensor life and significantly reduces the amount of sample gas released to the atmosphere.

Today, most H<sub>2</sub>S measurements are monitored either by lead acetate tape analyzers or once-a-day colorimetric gas detector tubes. "Pull tubes" are easy to use, but require on-site personnel and can be notoriously inaccurate. In addition, one sample per day may not be sufficient to track changes in the levels of H<sub>2</sub>S brought on by variations in temperature or process. Tape units are more accurate, but require continuous maintenance and monthly tape replacement.

The GDS-68XP offers an alternative to expensive analyzers while providing up to 96 samples per day. Programmable sample and purge intervals allow the user to determine the optimum balance between sample rate, sensor life and sample gas released to ambient air.

The GDS-68XP contains a microprocessor controlled sequencer that manages the sample / purge cycle and maintains the sampled output during purge air operation. An integrated dual-channel GASMAX II gas monitor provides the sensor interface and signal conditioning, calibration, continuous reading display and optional alarm relays with MODBUS slave interface.



An internal real-time clock and event log time-stamps calibration and alarm events for later review, while the menu-driven operator interface eliminates all analog potentiometers and allows setup and calibration without hazardous area declassification.

The GDS-68XP can be configured for 'draw from ambient' or 'positive pressure' modes of operation. An integrated Run / Calibrate valve and user prompted calibration procedure make routine maintenance and field 'bump tests' quick and easy.

## Reliability in Hostile Environments

Utilizing a long-life brushless DC pump, the GDS-68XP H<sub>2</sub>S Monitor is designed for installation in hazardous areas rated Class I, Div 1. For low temperature applications where highest accuracy and response are needed, an optional heater can be included if an enclosure is specified.

## Applications:

- Gas Pipeline Monitoring
- Water / Wastewater Treatment
- Custody Transfer Compliance
- Scrubber Breakthrough
- BioGas Digesters

**GDS Corp**

Gas and Flame Detection

2513 Hwy 646

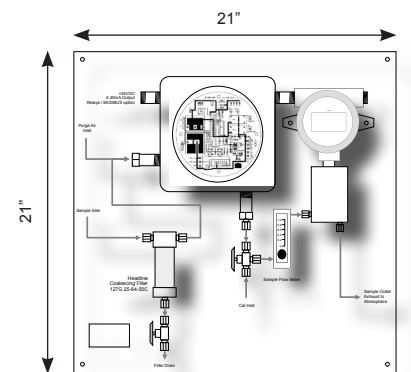
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<b>GDS-68XP SPECIFICATIONS</b>	
<b>Power Input</b>	24VDC +/- 5% at < 10 watts. Optional 110/220VAC power supply in separate enclosure. Heater requires 110/220VAC at 200 watts max
<b>Display</b>	Backlit 64 x 128 pixel LCD with 30-minute trend
<b>Hydrogen Sulfide Sensor</b>	Highly sensitive electrochemical sensor. Ranges from 0-25 ppm to 0-5000 ppm for H <sub>2</sub> S.
<b>Standard Output</b>	Standard 3-wire 4-20mA current source. Max loop R is 750 ohms with nominal 24VDC power supply
<b>Optional Output</b>	Three Form C Relays 5A @ 30VDC / 240VAC plus RS-485 2-wire MODBUS® slave interface. Fault relay configured for sensor FAULT or LOW FLOW
<b>Sample / Purge Pump</b>	Long life 1.6 diaphragm pump with brushless 24VDC motor. Pull from vacuum up to 6" Hg (3 psig)
<b>Sample Conditioning (Type 1 Draw)</b>	For ambient pressure applications. Low pressure stainless steel coalescing filter with Pyrex bowl (max pressure 100 psig). Filter element PVDF fluorcarbon for removal of liquid aerosols, 99.99% removal of 0.1 micron particles.
<b>Sample Conditioning (Type 3 Pressure)</b>	High high pressure applications with low levels of entrained moisture. High pressure stainless steel regulator to 3000 psig inlet. Low side stainless steel coalescing filter with Pyrex bowl (max pressure 100 psig). Filter element PVDF fluorcarbon for removal of liquid aerosols, 99.99% removal of 0.1 micron particles.
<b>Sample Conditioning (Type 4 Pressure)</b>	High pressure applications with high levels of entrained moisture. High pressure stainless steel regulator to 3000 psig inlet. Low side stainless steel dual coalescing / membrane filter (max pressure 1500 psig). Coalescing filter element PVDF fluorcarbon for removal of liquid aerosols, 99.99% removal of 0.1 micron particles.
<b>Sample Temp</b>	+5°C (+41°F) to +50°C (+122°F)
<b>Operating Temp</b>	-25°C (-13°F) to +65°C (+150°F)
<b>Construction</b>	XP enclosure: Cast aluminum. GASMAX II: Aluminum housing with epoxy paint standard; #316 stainless steel opt. Exterior stainless steel tubing and fittings. Backplate epoxy painted steel
<b>Dimensions (Plate only)</b>	21" x 21" x 8"
<b>Dimensions (NEMA 4X)</b>	24" x 24" x 8" Non-metallic or Stainless Steel Enclosure 20 Kg / 45 pounds
<b>Inlet / Outlet</b>	1/4" compression, stainless steel
<b>Approvals</b>	GASMAX II CSA Certified for Class I, Div 1, Grps B, C, D. Suitable for XP installations
<b>Warranty</b>	Electronics - 2 years from date of purchase Sensor - 1 year from date of purchase. Note: Electrochemical sensor must be powered within three months of shipment or sensor life may be adversely affected.

<b>GDS-68XP Order Guide</b>	
<b>GDS-68XP A-B-C/ D-E-F-G [SS]</b>	
<b>"A"</b>	<b>INPUT TYPE</b> 1 = Sample draw from ambient 3 = Pos pressure, standard filter 4 = Pos pressure, combination coalescing / membrane filter
<b>"B"</b>	<b>SENSOR TYPE</b> 15 - Hydrogen Sulfide 30 - Mercaptan (0-50 mg/m <sup>3</sup> ) 31 - Tetrahydrothiophene (0-50 mg/m <sup>3</sup> )
<b>"C"</b>	<b>RANGE (H<sub>2</sub>S)</b> Min 0025 (0-25 ppm) Max 5000 (0-5000 ppm)
<b>"D"</b>	<b>OUTPUT</b> 0 = Standard 4-20mA output 1 = 3X relays & MODBUS
<b>"E"</b>	<b>ENCLOSURE</b> 0 = 21" x 21" painted steel plate 1 = 24" x 24" NEMA 4X non-metallic enclosure 2 = 24" x 24" NEMA 4X stainless steel enclosure
<b>"F"</b>	<b>ENCLOSURE HEATER</b> 1 = 110VAC rated heater 2 = 24VDC rated heater
<b>"G"</b>	<b>OPERATING VOLTAGE</b> 0 = 24VDC input 1 = 12VDC input



No Enclosure - Backplate Only



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