GDS-68XP Process Gas Monitor for Low Oxygen Applications

✱ Designed for use in Class I, Div 1 Hazardous Locations

✱ Periodic measurement on intervals from 1 hour to more than six hours

✱ Reliable electrochemical sensor technology for accurate readings

✱ Automatic overrange detection protects sensor from damage

✱ Built-in flow meter provides visual confirmation of sample flow rate

✱ Prompted calibration procedure and cal port for easy maintenance

✱ Sample draw configuration supports sample lines up to 100 ft

✱ Ethernet plus optional 4x relays and dual MODBUS slave interface

✱ GASMAX CX auto-recognition of Smart Sensors

✱ High quality diaphragm pump with 24VDC brushless motor

✱ Calibration in hazardous area requires simple magnetic wand

✱ Manufactured in USA

GDS-68XP Process Gas Monitor

The GDS-68XP H_2S 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_2S 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_2S or other gases 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 24 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 GASMAX CX gas monitor provides the sensor interface and signal conditioning, calibration, continuous

GDS-68XP in NEMA 4X Enclosure

reading display and optional alarm relays with dual 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 / Cal 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 Process 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 200W AC heater can be included if an enclosure is specified.

Applications:
• Gas Pipeline Monitoring
• Odorant Monitoring
• Custody Transfer Compliance
• Scrubber Breakthrough
• BioGas Digesters

GDS-68XP SPECIFICATIONS

Power Input	24VDC +/- 5% at < 15 watts. Optional 110/220VAC power supply in separate enclosure. Heater requires 110/220VAC at 200 watts max
Display	Backlit high resolution color LCD with 30-minute trend
Sensor	Highly sensitive electrochemical sensors for Hydrogen, Hydrogen Sulfide, Mercaptans, THT and gas odorant mixtures. Contact GDS Corp for more information.
Standard Output	Standard 3-wire 4-20mA current source. Max loop R is 750 ohms with nominal 24VDC power supply. RJ-45 Ethernet interface with built-in web page
Optional Output	Four SPDT relays 5A @ 30VDC / 240VAC plus RS-485 2-wire MODBUS® slave interface.
Sample / Purge Pump	Long life 1.6 diaphragm pump with brushless 24VDC motor. Pull from vacuum up to 6" Hg (3 psig)
Sample Conditioning (Type 1)	For ambient pressure applications with clean & dry sample. Inlet pressure range +/- 3" water column. No inlet filter included. Sample pump configured to draw both sample and purge air.
Sample Conditioning (Type 2)	For low pressure applications with clean sample. Required inlet pressure fixed at 2 psig. Stainless steel coalescing filter with Pyrex bowl. Filter element PVDF fluorcarbon for removal of liquid aerosols, 99.99% removal of 0.1 micron particles.
Sample Conditioning (Type 3 Pressure)	High pressure applications with medium levels of entrained moisture and particulate. Max pressure 2000 psig. High pressure stainless steel inlet filter with stainless steel regulator. Filter element PVDF fluorcarbon for removal of liquid aerosols, 99.99% removal of 0.1 micron particles.
Sample Conditioning (Type 4 Pressure)	High pressure applications with high levels of entrained moisture and particulate. Max inlet pressure 1500 psig. Dual coalescing and membrane filter with bypass port. Coalescing filter element PVDF fluorcarbon for removal of liquid aerosols, 99.99% removal of 0.1 micron particles.
Sample Temp	+5°C (+41°F) to +50°C (+122°F)
Operating Temp	0°C (32°F) to +50°C (+122°F)
Construction	XP enclosure: Cast aluminum. GASMAX CX: Aluminum housing with epoxy paint standard; Exterior stainless steel tubing and fittings. Backplate epoxy painted steel
Dimensions (Plate only)	21" x 21" x 8" 11.3 Kg / 25 pounds
Dimensions (NEMA 4X)	24" x 24" x 8" Non-metallic or Stainless Steel Enclosure 20 Kg / 45 pounds
Inlet / Outlet	1/4" compression, stainless steel
Approvals	GASMAX CX CSA Certified for Class I, Div 1, Grps A, B, C, D. Suitable for XP installations
Warranty	Electronics - 2 years from date of purchase

GDS-68XP Order Guide

GDS-68XP X-A-B-C / D-E-F

"X"	SAMPLE CONDITIONING 1 = Ambient Sample Draw 2 = Coalescing Filter 3 = Filter + Regulator 4 = Dual Filter + Regulator
"A"	INPUT TYPE 1 = Standard Sensor Head
"B"	SENSOR TYPE See GDS Corp Product Configurator for allowable sensor types
"C"	RANGE (Depends on target gas)
"D"	OUTPUT 1 = Analog 4-20mA output + Ethernet 2 = Adds 4X relays & dual MODBUS
"E"	ENCLOSURE 1 = 21" x 21" painted steel plate only 2 = 24" x 24" non-metallic enclosure 3 = 24" x 24" stainless steel enclosure
"F"	ENCLOSURE HEATER / FAN 0 = None 1 = 110VAC, 200W rated heater 2 = 220VAC, 200W rated heater 3 = 270VAC, 200W rated heater 4 = 24VDC Exhaust Fan (2.2W)
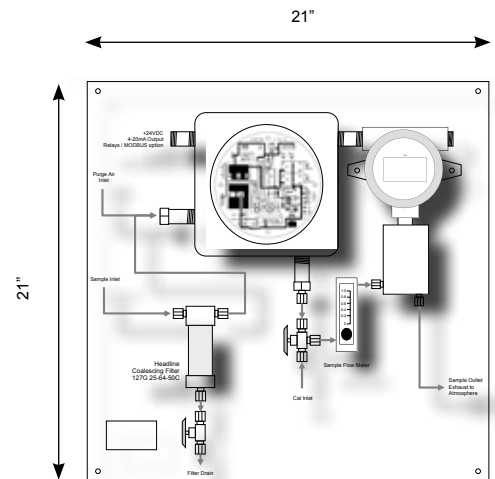
Shown No Enclosure - Backplate Only

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Gas and Flame Detection

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