

GDS-58XP Sample Draw System

Highly Reliable Sample Draw System for Gas Measurement in Hazardous or Extreme Locations

- * Designed for installation in Class I, Div 1 Hazardous Locations
- * Supports all GDS Corp bridge type and electrochemical sensors
- * High quality diaphragm pump with 24VDC brushless motor
- * 5A fault alarm for low flow or sensor fault indication
- * 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 500 ft in length
- * Dual programmable 5A relays for low and high alarm indication
- * GASMAX auto-recognition of Smart Sensors
- * Optional matching 110/220VAC power supply available
- * Setup in hazardous area requires only simple magnetic wand
- * Manufactured in USA



GDS-58XP 0/1-15-6/0-0-0-0
Hydrogen Sulfide 0-100ppm, 24VDC input

GDS-58XP Sample Draw

The GDS-58XP sample draw system is designed for situations where the installation of a diffusion-style sensor is inappropriate, either because access is difficult or because harsh environmental conditions, such as high temperatures, would reduce the life of the sensor. The GDS-58XP combines a GASMAX II gas monitor, adjustable flow meter, low flow switch with 5A relay and long life diaphragm pump in a single convenient package. An optional 110/220VAC power supply is also available.

GASMAX II Gas Monitor

The GASMAX state-of-the-art monitor supports any GDS Corp e-chem or bridge-type sensor. The high contrast backlit

graphic display shows system status, gas values, programmable tag name and "FLOW OK" indication, while flashing LEDs draw immediate attention to alarm conditions. 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.

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-58XP Sample Draw system is designed for installation in hazardous areas rated Class I, Div 1. Optional temperature-compensated sensors and sensor heating elements allow reliable operation and rapid response down to 0°C. MODBUS and analog wiring junction boxes make connections to existing systems fast and reliable.

GDS Corp

Gas and Flame Detection

2513 Hwy 646

Santa Fe, Texas 77510

409-927-2980 • 409-927-4180 (fax)

www.gdscorp.com • info@gdscorp.com

Toxic & Combustible Gas Detection • Controllers • Process Monitors • Calibration Supplies

GDS-58XP SPECIFICATIONS	
Power Input	24VDC +/- 5% at < 10 watts. Additional 5W required for Extended Temp sensor heater option. Optional 110/220VAC power supply in separate enclosure.
Display	Backlit 64 x 128 pixel LCD with 30-minute trend
Electrochemical Sensor Option	Accepts microamp-level signals from GDS Corp toxic & oxygen deficiency sensors
Bridge Type Sensor Option	Provides adjustable excitation voltage for photoionization detectors and catalytic bead sensors
Standard Output	Standard 3-wire 4-20mA current source. Max loop R is 750 ohms with nominal 24VDC power supply Three Form C Relays 5A @ 30VDC / 240VAC plus RS-485 2-wire MODBUS® slave interface. Fault relay configured for sensor FAULT or LOW FLOW
Sample Pump	1.6L diaphragm pump with brushless 24VDC motor NOTE: Pump may not start at temperatures below 0°C
Temp	0°C to +55°C operating
Housing	Aluminum housing with epoxy paint #316 stainless optional
Dimensions	14" x 12" x 5" for sensor types 10 - 70, 10 pounds 14" x 15" x 5" for sensor types 110+, 14 pounds Plate, 17" x 15", for single detector Plate, 21" x 17", for dual detector or 110VAC supply
Dimensions with AC supply, RWJB or MBBJ	21" x 12" x 5" for sensor types 10 - 70, 14 pounds 21" x 15" x 5" for sensor types 99+, 18 pounds
Inlet / Outlet	1/4" compression, stainless steel
Approvals	GASMAX II CSA Certified for Class I, Div 1, Grps B, C, D. Enclosure rated Class II, Div 2 Grps E, F, G. Suitable for XP installations ²
Warranty	2 years from date of purchase on electronics

SENSOR TYPES					
10	Oxygen (0-25%)	0°C to +55°C	31	THT	0°C to +40°C
11	Carbon Monoxide	0°C to +50°C	32	Diborane	0°C to +40°C
14	Hydrogen	0°C to +50°C	33	Hydrogen Sulfide (low RH)	0°C to +50°C
15	Hydrogen Sulfide	0°C to +50°C	61	PID Low 10.6 eV	0°C to +55°C
19	Sulfur Dioxide	0°C to +50°C	62	PID High 10.6 eV	0°C to +55°C
22	Ethylene Oxide	0°C to +50°C	63	PID Low 9.6 eV	0°C to +55°C
23	Arsine	0°C to +40°C	64	PID 10.0 eV	0°C to +55°C
24	Silane	0°C to +40°C	70	Catalytic Bead 0-100% LEL CH4	0°C to +55°C
27	Hydrazine	0°C to +40°C	71	Catalytic Bead 0-100% LEL	0°C to +55°C
28	Nitric Oxide	0°C to +50°C	11x	GDS-IR family, 0-100% LEL	0°C to +55°C
29	Nitrogen Dioxide	0°C to +50°C	12x	GDS-IR family, 0-100% LEL	0°C to +55°C
30	Mercaptan TBM	0°C to +40°C	13x	GDS-IR family, 0-100% v/v	0°C to +55°C
			15x	GDS-IR-PM family	0°C to +55°C



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GDS-58XP Order Guide	
GDS-58XP X / A-B-C-D / E-F-G [SS]	
“X”	0 = None 1 = Non-metallic particulate filter 2 = Stainless steel coalescing filter 3 = Pyrex clear coalescing filter
“A”	SENSOR HEAD ^{1,2} 1 = Stainless Steel Sensor Head 28 = Local mount for GDS-IR 29 = Local mount for GDS-IR-PM
“B”	SENSOR TYPE (see chart) 10-33 = Toxic sensor ⁴ 61-64 = Photoionization detector 70-71 = Catalytic bead % LEL 110-133 = GDS-IR % LEL, % v/v 150-153 = GDS-IR-PM
“C”	DETECTION RANGE 1 = 0 - 1 5 = 0 - 50 2 = 0 - 5 6 = 0 - 100 3 = 0 - 10 7 = 0 - 500 4 = 0 - 25 8 = 0 - 1000 Custom RXXXX (0-9999)
“D”	SENSOR HEATER ² 0 = None 1 = Temp compensation + heater
“E”	POWER SUPPLY 0 = 24VDC input 1 = 110/220VAC input (requires separate enclosure)
“F”	OUTPUT ¹ 0 = 4-20mA + 3x SPDT relays 1 = RWJB analog wiring junction box 2 = MBBJ MODBUS wiring jbox
“G”	MOUNTING PLATE/ENCLOSURE ³ 0 = None 1 = 17" x 15" painted steel plate 2 = 17" x 15" 304 stainless plate 3 = 21" x 17" painted steel plate 4 = 21" x 17" 316 stainless plate 5 = 24" x 24" non-metallic enclosure 6 = 24" x 24" stainless steel enclosure

NOTES
Note 1: Analog and MODBUS junction box not required but provides convenient wiring connection when using wire size greater than #22 gauge
Note 2: Sensor heater option only available for sensor types 10 - 33
Note 3: Specify larger plate if using MBBJ, RWJB or 110/220VAC power supply
Note 4: Reactive gases not supported on GDS-58XP