

GDS-58DXP Sample Draw Monitor

Dual Channel Explosion-Proof Sample Draw Gas Monitor with Fault and Low Flow Warning

- * Certified for use in Class I Div I hazardous locations
- * Monitor toxic gases, oxygen levels or hydrocarbon combustibles
- * Graphic display shows reading, alarm and fault conditions
- * Sample draw distance demonstrated up to 500" using 1/4" OD tubing
- * Non-intrusive user interface for calibration in hazardous areas
- * Power-up and post-calibration delays eliminate false alarms
- * Low flow warning flashes red and drops 4-20mA output to 0 mA
- * Flow meter for visual confirmation of sample gas flow
- * Requires +24VDC +/- 10% at less than 20 watts (dual GDS-IR)
- * Two alarm relays support local strobe or warning horn
- * MODBUS interface for remote digital monitoring via DCS or PLC
- * Setup in hazardous area requires only simple magnetic wand
- * Manufactured in USA

The GDS-58DXP sample draw gas monitor is an ideal solution for ambient gas detection applications where the monitored location is unsuitable for the direct installation of a fixed gas detector due to environmental, access or other reasons. The GDS-58DXP sample draw monitor is designed to detect a wide range of toxic and combustible gases in potentially hazardous environments. The monitor operates on +24VDC volts DC and includes an optional 110/220VAC power supply. Outputs include dual industry standard 4-20mA analog signals as well as a MODBUS port. Optional alarm relays allow the GASMAX DSX to communicate with a wide range of industry devices and system controllers.

Wide Variety of Available Sensors

The *GASMAX DSX* supports both local and remote electrochemical and infrared combustible sensors. Several electrochemical sensors, including hydrogen sulfide are available in low, medium and high ranges.

Non-Intrusive User Interface

The GDS-58DXP features non-intrusive magnetic switches that allow complete system configuration, regular calibration and product maintenance to be performed in the field without compromising the explosion-proof rating. The display screen always shows the current calibrated level of gas present at the sensor.



Flexible Output Options

In addition to dual industry-standard 4-20mA current loop outputs, a built-in isolated RS-485 two-wire MODBUS® interface is available to communicate with controllers, PLCs or large DCS system. A special Modbus Wiring Junction Box option makes it possible to easily create the daisy chain wiring for power and Modbus signal.

Certifications

The GDS58-DXP is built around the CSA certified GASMAX DSX gas monitor and is designed for use in hazardous areas using CSA and UL certified flame arrestors, seals and enclosures.

Applications

The GDS58-DXP is ideal for power plants, refineries, tank farms, chemical plants, compressor stations, pipelines and other industrial installations where fixed gas detection is required for user safety and equipment protection. Please contact GDS Corp to discuss application details or to obtain a quote for monitors or complete gas detection systems.

GDS
Corp

Gas and Flame Detection

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GDS-58DXP SPECIFICATIONS	
Power Input	+24VDC nominal < 10 watts with toxic sensor < 15 watts with GDS-IR infrared sensor < 20 watts with dual GDS-IR infrared sensor
Display	High resolution graphical LCD transfective (sunlight readable) screen with white LED backlight
User Interface	Three magnetic switches for non-intrusive setup and calibration in hazardous areas
Sensor Input	Dual channel toxic gas or infrared combustible / CO2 sensors
Alarm Settings	Two user-adjustable alarm settings
Draw Distance	Demonstrated up to 500 feet using 1/4" OD flexible tubing
Standard Output	Dual industry-standard 4-20mA outputs; max 1000 ohm loop load
Optional Relay Out	Four alarm / fault relays configurable for alarm set points; latching and non-latching mode; multi-sensor array logic
Digital Out	Single isolated two-wire MODBUS serial slave port.
Temp	Electronics -40°C to +40°C; Limits may vary depending on sensor Relative humidity 0-99% non-condensing
Housing	Aluminum instrument housing, 303 Stainless Steel sensor housing
Dimensions	WxHxD 15" x 10.5" x 5" with toxic sensor WxHxD 15" x 20" x 5" with GDS-IR sensor
Certifications	GASMAX DSX CSA: Class I Div 1 Groups B, C, D; T5 Flame arrestors UL and CSA certified for Class I Div 1 areas
Warranty	Two-year limited warranty on hardware; one year on sensors.

GDS-58DXP Order Guide	
GM/DSX-FIL-SEN1-RNG1-SEN2-RNG2-OPT1-OPT2-OPT3 [X]	
FIL	0 = No inlet filter 1 = Non-metallic particulate filter 2 = Stainless steel coalescing filter 3 = Clear Pyrex coalescing filter
SEN1	Select channel 1 sensor from list below
RNG1	See GDS Product Configurator for list of ranges
SEN2	Select channel 2 sensor from list below
RNG2	See GDS Product Configurator for list of ranges
OPT1	0 = No Relays 1 = 4x Alarm Relays
OPT2	0 = No mounting plate 1 = Mounted on 21" x 21" steel plate 2 = Mounted in 24" x 24" fiberglass enclosure 3 = Mounted in 24" x 24" stainless steel enclosure
OPT3	0 = No duct mount included 1 = Includes 10" duct mount sample probe 2 = Includes 16" duct mount sample probe 3 = Includes 20" duct mount sample probe 4 = Includes 24" duct mount sample probe
[X]	[SS] = Stainless steel enclosure [TAG] = Stainless steel tag [HTR] = Includes 110AC 200W heater [FIL] = Includes remote inlet filter and 50' tubing [FLT] = Includes remote float probe and 50' tubing [SCR] = Includes end of line inlet screen [AC] = Includes 25W AC power supply

EC SENSORS		INFRARED SENSORS		INFRARED SENSORS	
10	Oxygen (O2), 0-25%	117	GDS-IR Methanol 0-100% LEL	136	GDS-IR Ethylidene Norbornene (ENB) 0-100% LEL
11	Carbon Monoxide (CO), 0-1000 ppm	118	GDS-IR Propylene 0-100% LEL	137	GDS-IR Carbon Dioxide 0-1.00% v/v
12	Chlorine (CL2), 0-20 ppm*	119	GDS-IR Ethylene 0-100% LEL	138	GDS-IR Carbon Dioxide 0-5000 ppm
13	Chlorine Dioxide (CLO2), 0-5.0 ppm	120	GDS-IR Hexane 0-100% LEL	139	GDS-IR Carbon Dioxide 0-2000 ppm
14	Hydrogen (H2), 0-4% by volume	121	GDS-IR Jet-A 0-100% LEL		
15	Hydrogen Sulfide (H2S), 0-100 ppm	122	GDS-IR Diesel 0-100% LEL	209	GDS-IR2 Acetylene, 0-100% LEL
29	Nitrogen Dioxide (NO2) 0-10 ppm	123	GDS-IR Gasoline 0-100% LEL	210	GDS-IR2 Methane, 0-100% LEL
		124	GDS-IR Isopropyl Alcohol 0-100% LEL	211	GDS-IR2 Propane 0-100% LEL
		125	GDS-IR Acetone 0-100% LEL	220	GDS-IR2 Methyl Acetate 0-100% LEL
		126	GDS-IR p-Xylene 0-100% LEL	221	GDS-IR2 Vinyl Acetate 0-100% LEL
		127	GDS-IR Ethylene Oxide 0-50% LEL	222	GDS-IR2 Acetic Acid 0-100% LEL
110	GDS-IR Methane 0-100% LEL 70°C	128	GDS-IR MEK 0-100% LEL	230	GDS-IR Methane 0-100% by volume
1HT	GDS-IR Methane 0-100% LEL 90°C	129	GDS-IR Styrene	231	GDS-IR2 Propane 0-100% by volume
111	GDS-IR Propane 0-100% LEL	130	GDS-IR Methane 0-100% by volume	232	GDS-IR2 Carbon Dioxide 0-5%
112	GDS-IR Isobutane 0-100% LEL	131	GDS-IR Propane 0-100% by volume	233	GDS-IR2 Carbon Dioxide 0-3.5%
113	GDS-IR Pentane 0-100% LEL	132	GDS-IR Carbon Dioxide 0-5% v/v	301	GDS-IR2 Ammonia 0-1000 ppm
114	GDS-IR Cyclopentane 0-100% LEL	133	GDS-IR Carbon Dioxide 0-3.5% v/v	302	GDS-IR2 Ammonia 0-2500 ppm
115	GDS-IR n-Butane 0-100% LEL	134	GDS-IR Propane 0-9.75% by volume (UEL)	303	GDS-IR2 Ammonia 0-1% v/v
116	GDS-IR Ethanol 0-100% LEL	135	GDS-IR Carbon Dioxide 0-2.00 v/v	304	GDS-IR2 Ammonia 0-10% v/v



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