

# GASMAX DSX Gas Monitor

## Dual Channel Explosion Proof Gas Monitor for Toxic Gases, Oxygen Depletion and Hydrocarbon Combustible Gases

- \* 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
- \* Supports both local and remote sensors for easy installation
- \* Non-intrusive user interface for calibration in hazardous areas
- \* Power-up and post-calibration delays eliminate false alarms
- \* Supports GDS-IR and GDS-IR2 infrared gas sensors
- \* Dual channels support redundant sensors or monitor multiple hazards
- \* Operates on +24VDC with +18 to +32VDC total range
- \* Four alarm relays configurable for multi-sensor array logic
- \* MODBUS wiring junction box allows for easy daisy chain setup
- \* Setup in hazardous area requires only simple magnetic wand
- \* Manufactured in USA

The **GASMAX DSX** gas monitor is an ideal solution for fixed ambient gas detection applications where multiple sensors are required. The monitor is designed to detect a wide range of toxic and combustible gases in potentially hazardous environments. The monitor operates on +18 to +32 volts DC and outputs dual industry standard 4-20mA analog signals. Optional programmable alarm relays allow the GASMAX DSX to operate with a wide range of industry devices and system controllers.

### Wide Variety of Available Sensors

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

### Non-Intrusive User Interface

The **GASMAX DSX** 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 an industry-standard 4-20mA current loop output, a built-in isolated RS-485 two-wire MODBUS® interface is available to communicate with controllers, PLCs or large



GASMAX DSX Transmitter



GDS-IR Infrared Sensor



Toxic Sensor

DCS system. When used with the any controller's MODBUS master port, multiple **GASMAX DSX** monitors can be daisy-chained up to 500m to minimize wiring. A special Modbus Wiring Junction Box option makes it possible to easily create the daisy chain wiring for power and Modbus signal.

### Certifications

The **GASMAX DSX** is CSA and IECEx certified for use in hazardous areas and 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.



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GASMAX DSX SPECIFICATIONS	
<b>Power Input</b>	+18-32VDC, +24VDC nominal Operating current 315 mA@ 24VDC all options Transmitter only 50mA @ 24V, 65mA @ 18V
<b>Display</b>	High resolution graphical LCD transfective (sunlight readable) screen with white LED backlight
<b>User Interface</b>	Three magnetic switches for non-intrusive setup and calibration in hazardous areas
<b>Sensor Input</b>	Supports local or remote toxic gas or infrared combustible / CO2 using four-wire digital interface
<b>Alarm Settings</b>	Two user-adjustable alarm settings
<b>Standard Output</b>	Dual industry-standard 4-20mA outputs; max 1000 ohm loop load
<b>Optional Relay Out</b>	Four alarm / fault relays configurable for alarm set points; latching and non-latching mode; multi-sensor array logic
<b>Digital Out</b>	Single isolated two-wire MODBUS serial slave port.
<b>Optional Radio</b>	No radio
<b>Temp</b>	Electronics -40°C to +40°C; Limits may vary depending on sensor Relative humidity 0-99% non-condensing
<b>Housing</b>	Aluminum instrument housing, 303 Stainless Steel sensor housing
<b>Dimensions</b>	5.25" W x 5.3" L x 4.95" H (Transmitter only); Approx 6 lbs 5.25" W x 15" L x 4.95" H (Transmitter + GDS-IR) Approx 11 lbs
<b>Certifications</b>	CSA: Class I Div 1 Groups B, C, D; T5 IECEX: Ex d IIC TS Gb UL 2075 (when used with UL-Approved GDS-IR)
<b>Hardware Warranty</b>	One-year limited warranty
<b>Sensor Warranty</b>	Varies with gas type (warranty subject to verification by GDS Corp)

GASMAX DSX Order Guide	
GM/DSX-HEAD1-SEN1-RNG1/HEAD2-SEN2-RNG2/ OPT1 [SS][TAG][MBJB][CAL]	
<b>HEADx</b>	0 = No sensor head 1 = Local sensor head 2 = Local horizontal sensor head (IR only) 3 = Remote sensor head 4 = Remote horizontal sensor head (IR only)
<b>SENx</b>	Select sensor type from list below: 10-29 Toxic Sensors 100 - 304 Infrared Sensors
<b>RNGx</b>	For available ranges see GDS Configurator
<b>OPT1</b>	0 = No Relays 1 = 4x Alarm Relays
	[SS] = Stainless steel enclosure [TAG] = Stainless steel tag [MBJB] = Modbus wiring junction box [CAL] = Ships with cal adapter

EC SENSORS		INFRARED SENSORS		INFRARED SENSORS	
10	Oxygen (O2), 0-25%	116	GDS-IR Ethanol 0-100% LEL	137	GDS-IR Carbon Dioxide 0-1.00% v/v
11	Carbon Monoxide (CO), 0-1000 ppm	117	GDS-IR Methanol 0-100% LEL	138	GDS-IR Carbon Dioxide 0-5000 ppm
12	Chlorine (CL2), 0-20 ppm*	118	GDS-IR Propylene 0-100% LEL	139	GDS-IR Carbon Dioxide 0-2000 ppm
13	Chlorine Dioxide (CLO2), 0-5.0 ppm	119	GDS-IR Ethylene 0-100% LEL		
14	Hydrogen (H2), 0-4% by volume	120	GDS-IR Hexane 0-100% LEL	209	GDS-IR2 Acetylene, 0-100% LEL
15	Hydrogen Sulfide (H2S), 0-100 ppm	121	GDS-IR Jet-A 0-100% LEL	210	GDS-IR2 Methane, 0-100% LEL
29	Nitrogen Dioxide (NO2) 0-10 ppm	122	GDS-IR Diesel 0-100% LEL	211	GDS-IR2 Propane 0-100% LEL
		123	GDS-IR Gasoline 0-100% LEL	220	GDS-IR2 Methyl Acetate 0-100% LEL
70	Catalytic Bead (CH4)	124	GDS-IR Isopropyl Alcohol 0-100% LEL	221	GDS-IR2 Vinyl Acetate 0-100% LEL
71	Catalytic Bead (Other)	125	GDS-IR Acetone 0-100% LEL	222	GDS-IR2 Acetic Acid 0-100% LEL
72	Catalytic Bead (H2)	126	GDS-IR p-Xylene 0-100% LEL	230	GDS-IR Methane 0-100% by volume
		127	GDS-IR Ethylene Oxide 0-50% LEL	231	GDS-IR2 Propane 0-100% by volume
90	Optional 4-20mA input	128	GDS-IR MEK 0-100% LEL	232	GDS-IR2 Carbon Dioxide 0-5%
		129	GDS-IR Styrene	233	GDS-IR2 Carbon Dioxide 0-3.5%
110	GDS-IR Methane 0-100% LEL 70°C	130	GDS-IR Methane 0-100% by volume		
1HT	GDS-IR Methane 0-100% LEL 90°C	131	GDS-IR Propane 0-100% by volume	301	GDS-IR2 Ammonia 0-1000 ppm
111	GDS-IR Propane 0-100% LEL	132	GDS-IR Carbon Dioxide 0-5% v/v	302	GDS-IR2 Ammonia 0-2500 ppm
112	GDS-IR Isobutane 0-100% LEL	133	GDS-IR Carbon Dioxide 0-3.5% v/v	303	GDS-IR2 Ammonia 0-1% v/v
113	GDS-IR Pentane 0-100% LEL	134	GDS-IR Propane 0-9.75% by volume (UEL)	304	GDS-IR2 Ammonia 0-10% v/v
114	GDS-IR Cyclopentane 0-100% LEL	135	GDS-IR Carbon Dioxide 0-2.00 v/v		



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