

GASMAX II Gas Monitor



Single / Dual Channel Toxic & Combustible Gas Monitor for Hazardous Locations

- * CSA Certified for Class I, Div 1 explosion-proof installations
- * Monitor toxic and combustible gases with one detector
- * Graphic display shows values, units, trend graph, alarm levels
- * Supports both local and remote sensors for easy installation
- * Non-intrusive, prompted calibration with programmable cal gas
- * Power-up and post-calibration delays eliminate false alarms
- * Backlit display for better visibility in low light conditions
- * Options for 3x 5A alarm contacts, isolated 4-20mA and MODBUS®
- * Security settings to lock critical parameters
- * Auto-recognition of Smart Sensors uploads calibration data & more
- * Fault supervision circuitry detects failed sensor & transmits warning
- * Setup in hazardous area requires only simple magnetic wand
- * Manufactured in USA



Shown with local stainless steel sensor head (left), locally-connected GDS-IR infrared sensor (above) and dual-local sensor mount (right)

The GASMAX II gas monitor delivers the latest in toxic & combustible gas detection technology, reliability and ease of use.

Widest Variety of Available Sensors

Built-in dual channel electronics allow the GASMAX II to support almost any GDS Corp sensor or 4-20mA current source input. Local GDS Corp Smart Sensors enhance this capability by maintaining their own record of serial number, born-on date, initial calibration values, engineering units and more. Using this information, the GASMAX II constantly tracks sensor performance and calculates an estimate of sensor life remaining.

Advanced User Interface

The highly visible backlit display and high intensity alarm LEDs constantly show alarm status, calibrated engineering values and programmable tag name; a trend

screen shows alarm levels and the most recent 30 minute data values. An internal real-time clock and event log time-stamp calibration and alarm events for later review. A menu-driven operator interface using magnetic keys eliminates all analog potentiometers and allows complete setup and calibration without hazardous area declassification.

Flexible Output Options

In addition to standard dual 4-20mA current loop outputs, an optional dual isolated 4-20mA output board or an RS-485 two-wire MODBUS® interface with optional three 5A SPDT relays are available to communicate with controllers or drive local alarm indicators. When used with the any controller's MODBUS master port, multiple GASMAX II monitors can be daisy-chained up to 500m to minimize wiring.

Reliable

Available in both single and dual channel models, the GASMAX II is certified for use in Class I, Div 1 explosion proof installations. For low temperature applications, an Extended Temperature Monitor option adds thermostatically controlled heaters to enable operation as low as -40°C ambient.

GDS Corp

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



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GASMAX II SPECIFICATIONS	
Power Input	10-30VDC at < 4 watts with relay board. Additional power required for Extended Temp & GDS-IR option.
Display	Backlit 64 x 128 pixel LCD with 30-minute trend, bargraph
Electrochemical Sensor Input	Channel 1 accepts microamp-level signals from GDS Corp toxic & oxygen deficiency sensors or 4-20mA current source
Bridge Type Sensor Input	Channel 2 provides adjustable excitation voltage for SmartIR, PID and catalytic bead or 4-20mA current source
Standard Output	Standard dual 3-wire 4-20mA current source. Max loop R is 750 ohms with nominal 24VDC power supply
Optional Outputs	Dual 1500CMV isolated 4-20mA current source. Max loop R is 650 ohms with nominal 24VDC; Single or dual MODBUS slave ports; 3x programmable alarm relays with 5A capability
Temp	Electronics -40°C to +60°C; See Echem Sensor Manual for sensor limits
Housing	Aluminum housing with epoxy paint standard; Optional #316 stainless steel housing (specify [SS] in part number)
Dimensions	Width 5.4" (137 mm), Height 8" (203 mm), Depth 5" (127 mm) Shipping weight 6.5 pounds (3 kg)
Approvals	CSA Certified for Class I, Div 1, Grps B, C, D. Suitable for XP installations
Warranty	2 years on electronics and one year on sensors

TOXIC SENSORS		BRIDGE / mA SENSORS		114	Cyclopentane
10	Oxygen	50	SmartIR LEL (Methane)	115	n-Butane
11	Carbon Monoxide	51	SmartIR LEL (Propane)	116	Ethanol
12	Chlorine ⁶	52	SmartIR v/v (Methane)	117	Methanol
13	Chlorine Dioxide ⁶	53	SmartIR % CO2	118	Propylene
14	Hydrogen	61	PID Low (10.6eV)	118	Propylene
15	Hydrogen Sulfide	62	PID High (10.6eV)	119	Ethylene
16	Hydrogen Cyanide	64	PID Low (10.0 eV)	120	Hexane
17	Hydrogen Chloride ⁶	65	PID High (10.0 eV)	121	Jet-A
18	Hydrogen Fluoride ⁶	70	Catalytic Bead LEL (CH4)	122	Diesel
19	Sulfur Dioxide	71	Catalytic Bead LEL	123	Gasoline
20	Ammonia ⁶	90	4-20mA input	124	Isopropyl Alcohol
21	Ozone ⁶			125	Acetone
22	Ethylene Oxide			126	p-Xylene
23	Arsine			127	Ethylene Oxide (50%)
24	Silane	GDS-IR SENSORS (LEL)		128	MEK
25	Fluorine ⁶	105	Butanol	129	Styrene
26	Phosgene ⁶	106	Toluene	130	Methane v/v
27	Hydrazine	107	Isopropyl Acetate	131	Propane v/v
28	Nitric Oxide	108	Ethane	132	Carbon Dioxide (5%)
29	Nitrogen Dioxide	109	Acetylene	133	Carbon Dioxide (3.5%)
30	Mercaptan TBM	110	Methane	210	Methane (IR2)
31	Tetrahydrothiophene	1HT	Methane (Temp = 90C)	211	Propane (IR2)
32	Diborane	111	Propane		
33	Hydrogen Sulfide	112	Isobutane		
34	Phosphine	113	Pentane		

GASMAX II Order Guide

GM II A - B - C / D - E - F / G - H [SS] [TAG]

"A" & "D"	SENSOR HEAD ^{1,2,3,6,8} 0 = None 1 = Local sensor head 2 = Local sensor head + splash guard 3 = Local sensor head for reactive gases ³ 4 = Local sensor head + SG for reactive gases ³ 5 = Remote sensor head 6 = Remote sensor head + splash guard 7 = Remote sensor for reactive gases 8 = Remote sensor head + SG for reactive gases 9 = Local mount for GDS-IR ⁷ 10 = Remote mount for GDS-IR ⁷ 20 = Local 4-20mA sensor transmitter ⁹ 21 = Local sensor transmitter + splash guard ⁹ 22 = Local sensor transmitter for reactive gases ^{3,9} 23 = Local sensor transmitter + SG for reactive gases ^{3,9} 24 = Remote 4-20mA sensor transmitter 25 = Remote sensor transmitter + splash guard 26 = Remote sensor transmitter for reactive gases 27 = Remote sensor transmitter + SG for reactive gases
"B" & "E"	SENSOR TYPE (see chart) ⁵ Using sensor types 10-32 on "E" requires local or remote 4-20mA sensor transmitter
"C" & "F"	DETECTION RANGE ⁵ 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)
"G"	OUTPUT OPTIONS 0 = Dual 4-20mA output (standard) 1 = MODBUS + 3X Alarm Relays 2 = Dual isolated 4-20mA outputs 3 = MODBUS slave port
"H"	OPERATING TEMPERATURE ¹⁰ 0 = Standard temperature range (-10°C to +55°C) 1 = Extended temperature range (-40°C to +55°C)
	[SS] = Stainless steel enclosure [TAG] = Stainless steel tag

NOTES

Note 1: Remote sensor head, remote sensor transmitter and GDS-IR sensor installations do not utilize Smart Sensor interface
Note 2: Maximum distance for remote toxic sensor connection is 25ft (3m). Use ST option for longer runs
Note 3: GASMAX II for reactive gases not certified for XP
Note 5: Standard ranges; contact factory for others
Note 6: Certain highly reactive target gases require sensor heads for reactive gases
Note 7: GDS-IR requires 4-20mA input option
Note 8: Dual local sensors require Y-adaptor
Note 9: Sensor head types 20, 21, 22 and 23 not available for channel 1 ("Option A")
Note 10: Operation below -10°C for sensor types 10 to 32 requires "H=1" option (local mount sensors only)