

GASMAX II Gas Monitor

Single / Dual Channel Gas Monitor for Hazardous Locations

- * CSA Certified for Class I, Div 1 explosion-proof installations
- * Monitor both toxic sensors and LEL 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



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 any GDS Corp sensor or any combination of one toxic and one combustible (bridge-type) sensor. 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 three 5A SPDT relays are available to communicate with controllers or drive local alarm indicators. When used with the C1 Protector 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 CSA and ATEX certified for use in Class I, Div 1 explosion proof installations. For low temperature applications, an Arctic Monitor option add thermostatically controlled heaters to enable operation as low as -55°C ambient.

GDS Corp

Gas and Flame Detection

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GASMAX II SPECIFICATIONS	
Power Input	10-30VDC at < 3 watts with relay board. Additional power (4W peak) required for Arctic Monitor option.
Display	Backlit 64 x 128 pixel LCD with 30-minute trend, bargraph and eunits.
Electrochemical Sensor Input	Channel 1 accepts microamp-level signals from GDS Corp toxic & oxygen deficiency sensors
Bridge Type Sensor Input	Channel 2 provides adjustable excitation voltage for SmartIR, PID and catalytic bead. Can be converted to 4-20mA input for use with GDS-49 or other standard 4-20mA source.
Standard Output	Standard dual 3-wire 4-20mA current source. Max loop R is 750 ohms with nominal 24VDC power supply
Optional Output #1	Dual 1500CMV isolated 4-20mA current source. Max loop R is 650 ohms with nominal 24VDC.
Optional Output #2	Three Form C Relays 5A @ 30VDC / 240VAC plus RS-485 2-wire MODBUS® slave interface
Temp	-25°C to +65°C (see sensor limitations)
Housing	Aluminum housing with epoxy paint standard; #316 stainless steel opt
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 ATEX Certified EX II 2 G EEx d IIB + H2 T5
Warranty	2 years from date of purchase on electronics and one year on sensors.

SENSOR TYPES					
10	Oxygen (0-25)	-30 to +55C	27	Hydrazine (0-1)	-10 to +40C
11	Carbon Monoxide (0-300)	-30 to +50C	28	Nitric Oxide (0-50)	-20 to +50C
12	Chlorine (0-5) ⁶	-20 to +50C	29	Nitrogen Dioxide (0-100)	-20 to +50C
13	Chlorine Dioxide (0-1) ⁶	-20 to +40C	30	Mercaptan TBM (0-15)	-10 to +40C
14	Hydrogen (0-2000)	-20 to +50C	31	Tetrahydrothiophene (0-100)	-10 to +40C
15	Hydrogen Sulfide (0-100)	-30 to +50C			
16	Hydrogen Cyanide (0-50)	-20 to +50C	50	SmartIR 0-100% LEL (Methane)	-20 to +50C
17	Hydrogen Chloride (0-30) ⁶	-20 to +50C	51	SmartIR 0-100% LEL (Propane)	-20 to +50C
18	Hydrogen Fluoride (0-10) ⁶	-20 to +50C	53	SmartIR 0-100% v/v (Methane)	-20 to +50C
19	Sulfur Dioxide (0-25)	-30 to +50C	53	SmartIR Carbon Dioxide	-20 to +50C
20	Ammonia (0-100) ⁶	-20 to +40C			
21	Ozone (0-1) ⁶	-20 to +40C	61	PID Low (0-50 ppm ISOB)	-40 to +60C
22	Ethylene Oxide (0-20)	-20 to +50C	62	PID High (0-300 ppm ISOB)	-40 to +60C
23	Arsine (0-1)	-20 to +40C	70	Catalytic Bead 0-100% LEL	-40 to +65C
24	Silane (0-50)	-20 to +40C	90	4-20mA input	-40 to +60C
25	Fluorine (0-1)	-10 to +40C	95	GDS-IR 0-100% LEL (Methane)	-40 to +65C
26	Phosgene (0-1)	-20 to +40C	96	GDS-IR (other)	-40 to +65C
			97	GDS-IR 0-5% Carbon Dioxide	-40 to +65C



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GASMAX II Order Guide	
GM II A - B - C / D - E - F / G - H [ATEX] [SS]	
“A” & “D”	SENSOR HEAD ^{1,2,3,4,6,8} 1 = Stainless Steel Sensor Head 2 = Stainless Steel Sensor Head w/ Splash Guard 3 = Aluminum Sensor Head (for non-XP areas only) 4 = Aluminum Sensor Head (non-XP) w/ Splash Guard 5 = Remote Stainless Steel Sensor Head (XP) 6 = Remote Stainless Steel Sensor Head w/ Splash Guard 7 = Remote Aluminum Sensor Head (for non-XP areas) 8 = Remote AL Sensor Head (non-XP) w/ Splash Guard 9 = Local mount for GDS-IR ⁷ 10 = Remote mount for GDS-IR ⁷ 12 = Local ATEX Stainless Steel Sensor Head
“B” & “E”	SENSOR TYPE (see chart) ⁵ B use only types 10 - 31 E use only types 50 - 99
“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 1 = Alarm Relays & MODBUS 2 = Dual Isolated 4-20mA Out
“H”	TEMPERATURE RANGE ¹⁰ 0 = Std range -40°C to +55°C 1 = Ext range -55°C to + 55°C

NOTES
Note 1: Remote sensor installations do not utilize Smart Sensor interface
Note 2: Maximum distance for remote e-chem sensor connection is 25ft (3m).
Note 3: GASMAX II with aluminum sensor head NOT for XP installations
Note 4: ATEX certification not available with aluminum sensor head
Note 5: Standard ranges shown; contact factory for additional ranges
Note 6: Some highly reactive gases require aluminum sensor head
Note 7: Selections 9 & 10 for Option “D” only
Note 8: Dual local sensors require Y-adapter
Note 9: GMIIx not available with option “G”
Note 10: Extended temperature range available for local sensors only; requires 10-96xx sensor