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 –55°C ambient.

GDS Corp
Gas and Flame Detection

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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; ATEX Certified EX II 2 G EEx d IIB + H2 T5
Warranty	2 years on electronics and one year on sensors

SENSOR TYPES[5,10]

10	Oxygen	**28**	Nitric Oxide
11	Carbon Monoxide	**29**	Nitrogen Dioxide
12	Chlorine[6]	**30**	Mercaptan TBM
13	Chlorine Dioxide[6]	**31**	Tetrahydrothiophene
14	Hydrogen	**32**	Diborane
15	Hydrogen Sulfide	**33**	Hydrogen Sulfide (Low RH)
16	Hydrogen Cyanide	**50**	SmartIR 0-100% LEL (Methane)
17	Hydrogen Chloride[6]	**51**	SmartIR 0-100% LEL (Propane)
18	Hydrogen Fluoride[6]	**53**	SmartIR 0-100% by volume
19	Sulfur Dioxide	**53**	SmartIR Carbon Dioxide
20	Ammonia[6]	**61**	PID Low (0-50 ppm, 10.6eV)
21	Ozone[6]	**62**	PID High (0-300 ppm, 10.6eV)
22	Ethylene Oxide	**64**	PID Low (0-50 ppm, 10.0 eV)
23	Arsine	**65**	PID High (0-300 ppm, 10.0 eV)
24	Silane	**70**	Catalytic Bead 0-100% LEL CH4
25	Fluorine[6]	**71**	Catalytic Bead 0-100% LEL Specify Gas
26	Phosgene[6]	**90**	4-20mA input
27	Hydrazine	**108 - 134**	GDS-IR for combustibles and CO2

GASMAX II Order Guide

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

"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 21= Local sensor transmitter + splash guard 22= Local sensor transmitter for reactive gases[3] 23= Local sensor transmitter + SG for reactive gases[3] 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 4 = Dual MODBUS slave ports
"H"	SENSOR HEATER [10] 0 = None 1 = Sensor Heater for Low Temp / High RH

NOTES

Note 1: Remote 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-adapter

Note 10: Operation below -10°C for sensor types 10 to 32 may require Sensor Heater option (local mount sensors only)

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