

# GASMAX II + GDS-IR Monitor

## High Performance Infrared Combustible Gas Monitor for Hazardous Locations

- \* CSA Certified for Class I, Div 1 explosion-proof installations
- \* Reliable infrared sensing technology; virtually maintenance free
- \* 5 Year Warranty on GDS-IR lowers total cost of ownership
- \* 12 Year Warranty on infrared radiation source
- \* Graphic display shows values, units, trend graph, alarm levels
- \* Random power-up delay reduces initial load on power supply
- \* Non-intrusive, prompted cal with programmable cal gas value
- \* Power-up and post-calibration delays eliminate false alarms
- \* Additional channel available for local or remote sensor
- \* 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
- \* Fault supervision circuitry detects failed sensor & transmits warning
- \* Setup in hazardous area requires only simple magnetic wand
- \* GDS-IR CSA Certified C22.2 No. 152-M1984 Performance Tested
- \* Manufactured in USA

The GASMAX II + GDS-IR gas monitor combination delivers the latest in combustible & CO<sub>2</sub> gas detection technology, reliability and ease of use. CSA certified for use in Class 1 Division 1 explosive environments, the GASMAX II + GDS-IR is an ideal solution for today's most demanding onshore and offshore applications.

### Best Infrared Technology

The GDS-IR infrared combustible gas sensor offers low cost of ownership and a fit for harsh environments, the GDS-IR is virtually maintenance-free and immune to poisoning or etching by any known gas. The sensor element features a self-compensating optical bench, heated optical chamber and fault indication for all failure modes. The optical path can be easily opened for cleaning.

No periodic span calibrations are required. On initial setup and after each cleaning, a simple 'auto zero' procedure is used to establish proper operating conditions.

### Advanced User Interface

The GASMAX II features a highly visible backlit display and high intensity alarm LEDs that 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



Methane  
Gasoline  
Ethylene  
Pentane  
Propane  
n-Butane  
Ethanol  
Methanol  
Jet A  
Propylene  
Diesel  
Alcohol  
Isobutane  
Carbon Dioxide  
More...

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 + GDSIR is CSA certified for use in Class I, Div 1 explosion proof installations.

**GDS**  
**Corp**  
Gas and Flame Detection

AUTHORIZED DISTRIBUTOR: GasDetectorsUSA.com  
Houston, Texas USA  
[sales@GasDetectorsUSA.com](mailto:sales@GasDetectorsUSA.com)  
832-615-3588

GASMAX II + GDS-IR SPECIFICATIONS	
<b>Power Input</b>	18-30VDC at less than 10 watts with relay board.
<b>Display</b>	Backlit 64 x 128 pixel LCD with trend, bargraph and eunits.
<b>Electrochemical Sensor Input</b>	Channel 1 accepts microamp-level signals from GDS Corp toxic & oxygen defi
<b>Std Output</b>	Single or dual 3-wire 4-20mA current source (max 750 ohms)
<b>Optional Outputs</b>	Dual 1500CMV isolated 4-20mA current source; Three Form C Relays 5A @ 30VDC / 240VAC plus RS-485 2-wire MOD-BUS® slave interface; Dual redundant MODBUS slave
<b>Accuracy</b>	± 3% LEL, 0-50% LEL ± 5% LEL, 51 - 100% LEL
<b>Response Time</b>	Methane T50 < 3 seconds; T90 < 5 seconds
<b>Temp</b>	-40°C to +60°C for GASMAX II + GDS-IR
<b>Housing</b>	GASMAX: Aluminum housing with epoxy paint standard; #316 stainless steel opt; GDS-IR: #316 Stainless Steel
<b>Dimensions (with GDS-IR)</b>	Width 5.7" (144 mm), Height 12.4" (315 mm), Depth 5" (127 mm) Shipping weight 8 pounds (3.6 kg)
<b>Approvals</b>	GASMAX CSA Certifi GDS-IR CSA Certifi GDS-IR C22.2 No.152-M1984 (R1997) for performance
<b>Warranty</b>	2 years from date of purchase; 5 years on GDS-IR sensor

SENSOR TYPES					
<b>10</b>	Oxygen (0-25%)	-40 to +55C	<b>90</b>	4-20mA input	-40 to +65C
<b>11</b>	Carbon Monoxide (0-300)	-40 to +50C	<b>99</b>	GDS-IR Specify Gas	-40 to +65C
<b>12</b>	Chlorine (0-5) <sup>6</sup>	-40 to +50C	<b>110</b>	Methane 0-100% LEL	-40 to +50C
<b>13</b>	Chlorine Dioxide (0-1) <sup>6</sup>	-40 to +40C	<b>111</b>	Propane 0-100% LEL	-40 to +65C
<b>14</b>	Hydrogen (0-2000)	-40 to +50C	<b>112</b>	Isobutane 0-100% LEL	-40 to +65C
<b>15</b>	Hydrogen Sulfide	-40 to +50C	<b>113</b>	Pentane 0-100% LEL	-40 to +40C
<b>16</b>	Hydrogen Cyanide (0-50)	-40 to +50C	<b>114</b>	Cyclopentane 0-100% LEL	-40 to +65C
<b>17</b>	Hydrogen Chloride (0-30) <sup>6</sup>	-40 to +50C	<b>115</b>	n-Butane 0-100% LEL	-40 to +65C
<b>18</b>	Hydrogen Fluoride (0-10) <sup>6</sup>	-40 to +50C	<b>116</b>	Ethanol 0-100% LEL	-40 to +65C
<b>19</b>	Sulfur Dioxide (0-25)	-40 to +50C	<b>117</b>	Methanol 0-100% LEL	-40 to +65C
<b>20</b>	Ammonia (0-100) <sup>6</sup>	-40 to +40C	<b>118</b>	Propylene 0-100% LEL	-40 to +65C
<b>21</b>	Ozone (0-1) <sup>6</sup>	-40 to +40C	<b>119</b>	Ethylene 0-100% LEL	-40 to +65C
<b>22</b>	Ethylene Oxide (0-20)	-40 to +50C	<b>120</b>	Hexane 0-100% LEL	-40 to +65C
<b>23</b>	Arsine (0-1)	-40 to +40C	<b>121</b>	Jet-A 0-100% LEL	-40 to +65C
<b>24</b>	Silane (0-50)	-40 to +40C	<b>122</b>	Diesel 0-100% LEL	-40 to +65C
<b>25</b>	Fluorine (0-1) <sup>6</sup>	-40 to +40C	<b>123</b>	Gasoline 0-100% LEL	-40 to +65C
<b>26</b>	Phosgene (0-1) <sup>6</sup>	-40 to +40C	<b>124</b>	Alcohol 0-100% LEL	-40 to +65C
<b>27</b>	Hydrazine (0-1) <sup>6</sup>	-40 to +40C	<b>130</b>	Methane 0-100% v/v	-40 to +65C
<b>28</b>	Nitric Oxide (0-50)	-40 to +40C	<b>131</b>	Propane 0-100% v/v	-40 to +65C
<b>29</b>	Nitrogen Dioxide (0-100)	-40 to +40C	<b>132</b>	Carbon Dioxide 0-5% v/v	-40 to +65C
<b>30</b>	Mercaptan TBM (0-15)	-40 to +40C			
<b>31</b>	Tetrahydrothiophene	-40 to +40C			



GASMAX II Order Guide	
GM II A - B - C / D - E - F / G - H [SS]	
<b>“A” &amp; “D”</b>	SENSOR HEAD <sup>1,2,3,4,6,8</sup> 0 = None 1 = Local sensor head 2 = Local SH + splash guard 4 = Local SH for reactive gases <sup>3</sup> 5 = Remote sensor head 6 = Remote SH + splash guard 8 = Remote SH for reactive gases <sup>3</sup> 9 = Local mount for GDS-IR <sup>7</sup> 10 = Remote mount for GDS-IR <sup>7</sup> 12 = Local ATEX sensor head 14 = Remote ATEX sensor head 20 = Local 4-20mA sensor transmitter 21 = Local ST + splash guard 22 = Local ST for reactive gases <sup>3</sup> 23 = Remote 4-20 sensor transmitter 24 = Remote ST + splash guard 25 = Remote ST for reactive gases <sup>3</sup>
<b>“B” &amp; “E”</b>	SENSOR TYPE (see chart) <sup>5</sup> Using toxic sensors on “E” requires local or remote 4-20mA transmitter
<b>“C” &amp; “F”</b>	DETECTION RANGE <sup>5</sup> 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)
<b>“G”</b>	OUTPUT OPTIONS 0 = Dual 4-20mA output (standard) 1 = MODBUS + 3X Alarm Relays 2 = Dual isolated 4-20mA output 3 = MODBUS only
<b>“H”</b>	EXTENDED TEMP <sup>10</sup> 0 = Std range -40°C to +65°C 1 = Ext temp -55°C to +65°C

NOTES	
Note 1: Remote and GDS-IR sensor installations do not utilize Smart Sensor interface	
Note 2: Maximum distance for remote toxic sensor is 25ft (3m). Use sensor transmitter for longer runs	
Note 3: GASMAX II with sensor head for reactive gases not suitable for XP installations	
Note 5: Standard ranges shown; contact factory for additional ranges	
Note 6: Certain highly reactive target gases require sensor head for reactive gases	
Note 7: Selections 9 & 10 for Option “D” only	
Note 8: Dual local sensors require Y-adapter	
Note 10: Operation below -10°C for sensor types 10 to 31 may require Extended Temp option (local mount sensors only)	