

# GASMAX II + SmartIR

## Infrared Combustible / CO<sub>2</sub> Gas Detection

- ◆ CSA Certified for explosion proof installations
- ◆ Lowest total cost of ownership with integrated infrared sensor module
- ◆ Monitor both Toxic / O<sub>2</sub> and LEL / VOC from single point
- ◆ Graphic display shows values, units, trend graph
- ◆ Non-intrusive one-person prompted calibration
- ◆ Power-up and post-cal delay eliminates false alarms
- ◆ Backlit display for better visibility in low light
- ◆ Options for 3x 5A alarm contacts, isolated 4-20mA and MODBUS® interface
- ◆ Security settings to lock critical settings
- ◆ Smart Sensors store calibration & alarm events

The GASMAX II with SmartIR infrared combustible gas sensor delivers the advantages of infrared combustibles gas detection at a price comparable to traditional Catalytic Bead sensors but with a significantly lower total cost of ownership.

The SmartIR sensor, configurable for %LEL Methane, %Volume Hydrocarbons or % Volume Carbon Dioxide provides a complete IR solution that includes optics, electronics, linearization and temperature compensation.

In addition to Infrared LEL, the dual-channel-capable GASMAX II can be configured to host an electrochemical sensor for simultaneous monitoring of toxic or oxygen levels.

Operator interface is via a menu-driven magnetic keypad, allowing complete setup and calibration without hazardous area declassification.

Smart Sensor technology allows a memory chip in each Smart Sensor to provide the GASMAX II with information on sensor type, range, units, born-on date and previous calibration data.



### 0-100% LEL Methane

GASMAX II + SMART IR Model GMII x-xx-x/1-50-6/x-x

### 0-100% LEL Other (Specify)

GASMAX II + SMART IR Model GMII x-xx-x/1-51-6/x-x

### 0-100% by Volume Hydrocarbons

GASMAX II + SMART IR Model GMII x-xx-x/1-52-6/x-x

### 0-5% by Volume CO<sub>2</sub>

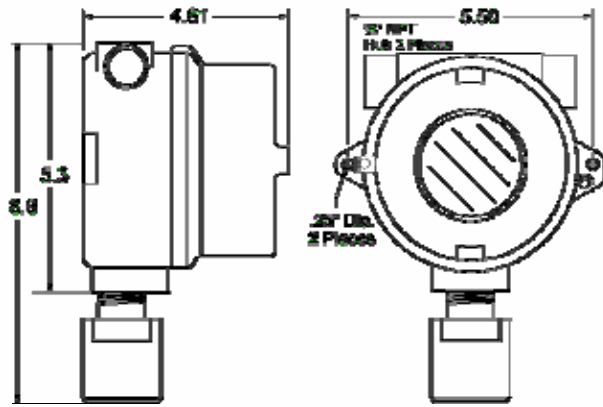
GASMAX II + SMART IR Model GMII x-xx-x/1-53-2/x-x



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GDS CORP

**ALL DIMENSIONS IN INCHES**



- Operating Voltage** 10-30VDC at less than 3 watts with 10-0234 relay option
- Display** Large adjustable backlit 64 x 128 pixel LCD with 30 minute trend, bar-graph and engineering units.
- Input** EC Channel: Accepts signals from GDS Corp toxic / O<sub>2</sub> sensors  
mA / Bridge Channel: Configured for bridge input from SmartIR sensor
- Outputs** Standard dual 3-wire 4-20mA current source. Max loop R is 750 ohms with nominal 24VDC power  
Optional dual 1500CMV isolated 4-20mA current source. Max loop R is 650 ohms with nominal 24VDC.  
Optional three Form C Relays @ 5A  
Optional RS-485 2-wire MODBUS®
- Accuracy\*** ± 5% of full scale
- Warm-up\*** < 20 seconds to final zero ± 2% LEL
- Response\*** T<sub>90</sub> < 20 seconds @ 20°C ambient
- Temp Range\*** -40°C to +65°C  
-55°C to +65°C operating (Arctic)
- Humidity\*** 0 to 99% RH non-condensing
- 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 Div 1 & 2 Groups B, C, D. Suitable for XP installations
- Warranty\*** 2 years on electronics and one year on sensors from date of purchase



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**GASMAX II Order Guide**

**GM II A - B - C / D - E - F / G - H [ATEX]**

**"A" - EC Channel Sensor Head Type** <sup>1, 2, 3, 4</sup>

- 1 Local Stainless Steel Explosion-Proof
- 2 Local Stainless Steel Explosion-Proof (w/ splash guard)
- 3 Local Aluminum; without flame arrestor <sup>3, 4</sup>
- 4 Local Aluminum; without flame arrestor; (w/ splash guard) <sup>3, 4</sup>
- 5 Remote Stainless Steel Explosion-Proof <sup>1, 2</sup>
- 6 Remote Stainless Steel Explosion-Proof (w/ splash guard) <sup>1, 2</sup>
- 7 Remote Aluminum; without flame arrestor <sup>1, 2, 3, 4</sup>
- 8 Remote Aluminum; without flame arrestor; (w/ splash guard) <sup>1, 2, 3, 4</sup>

**"B" - EC Channel Sensor** <sup>6</sup>

- |                                   |                        |
|-----------------------------------|------------------------|
| 10 Oxygen                         | 21 Ozone               |
| 11 Carbon Monoxide                | 22 Ethylene Oxide      |
| 12 Chlorine <sup>6</sup>          | 23 Arsenic             |
| 13 Chlorine Dioxide <sup>6</sup>  | 24 Silane              |
| 14 Hydrogen                       | 25 Fluorine            |
| 15 Hydrogen Sulfide               | 26 Phosgene            |
| 16 Hydrogen Cyanide               | 27 Hydrazine           |
| 17 Hydrogen Chloride <sup>6</sup> | 28 Nitric Oxide        |
| 18 Hydrogen Fluoride <sup>6</sup> | 29 Nitrogen Dioxide    |
| 19 Sulfur Dioxide                 | 30 Mercaptan TBM       |
| 20 Ammonia NH <sub>3</sub>        | 31 Tetrahydrothiophene |

**"C" - EC Measurement Range** <sup>5</sup>

- |          |         |                   |
|----------|---------|-------------------|
| 1 0-1.00 | 4 0-25  | 7 0-500           |
| 2 0-5.00 | 5 0-50  | 8 0-1000          |
| 3 0-10.0 | 6 0-100 | 9 Contact factory |

**"D" - mA / Bridge Channel Sensor Head Type** <sup>1, 8</sup>

- 1 Local Stainless Steel Explosion-Proof <sup>8</sup>
- 2 Local Stainless Steel Explosion-Proof (w/ splash guard) <sup>8</sup>
- 5 Remote Stainless Steel Explosion-Proof <sup>1</sup>
- 6 Remote Stainless Steel Explosion-Proof with splash guard <sup>1</sup>
- 9 Local mount for GDS-IR Point Infrared (mA/Bridge channel only)
- 10 Remote mount for GDS-IR Point Infrared (mA/Bridge channel only)

**"E" - mA / Bridge Channel Sensor**

- |  |   |
|--|---|
| 50 Smart IR 0-100% LEL (Methane)             | 70 Catalytic Bead for LEL               |
| 51 Smart IR 0-100% LEL (Propane)             | 80 MOS H <sub>2</sub> S 0-50 ppm        |
| 52 Smart IR 0-100% Volume (CH <sub>4</sub> ) | 90 4-20mA Input                         |
| 53 Smart IR 0-5% Volume CO <sub>2</sub>      | 95 GDS-IR 0-100% LEL (CH <sub>4</sub> ) |
| 60 Photoionization Detector (0-2000ppm)      | 96 GDS-IR (Other)                       |
| 61 Photoionization Detector (0-20ppm)        |   |

**"F" - mA / Bridge Channel Measurement Range** <sup>5</sup>

- |          |         |                   |
|----------|---------|-------------------|
| 1 0-1.00 | 4 0-25  | 7 0-500           |
| 2 0-5.00 | 5 0-50  | 8 0-1000          |
| 3 0-10.0 | 6 0-100 | 9 Contact factory |

**"G" - Options**

- 1 10-0234 3 Alarm Relays & RS-485 MODBUS® slave port
- 2 10-0250 Dual Isolated 4-20mA Output

**"H" - Temperature Range** <sup>10</sup>

- 0 Standard operating range -40°C to +65°C
- 1 "Arctic Monitor" option operating range -55°C to + 65°C

- 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:** Highly reactive gases REQUIRE Aluminum sensor head
- Note 8:** Dual local sensors require Y-adapter #10-1200
- Note 10:** Arctic option available for local sensors only; require 10-91xx sensor

Represented by: