GDS-68SXP Natural Gas Odorant Monitor for Mercaptans & Tetrahydrothiophene

- Designed for use in Class I, Div 1 Hazardous Locations
- Sensors for mercaptan, THT and common odorant mixtures
- Large LCD color display shows current reading, alarms & status
- GDS Connect App provides local wireless monitoring and control
- Manual or automatic calibration from stream or cal reference gas
- Gas and air flow sensor detects closed valves & blocked lines
- Automatic overrange detection protects sensor from damage
- Built-in flow meter provides visual confirmation of gas flow rate
- Outputs include 4-20mA output and RS-485 Serial MODBUS
- Units available: lbs per million feet, ppm or mg / cubic meter
- Latest generation GASMAX CX sensor with Digital Smart Sensors
- High quality diaphragm pump with 24VDC brushless motor
- Security levels reduce risk of tampering by unauthorized personnel
- Manufactured in USA

The GDS-68SXP Odorant Monitor uses industry-proven electrochemical sensor technology to measure the level of odorants in natural gas. Sensors are available for mercaptans, tetrahydrothiophene (THT) and blends such as Spotleak® by Arkema and Scentsinel® from Chevron Phillips.

The GDS-68SXP Monitor offers an alternative to expensive analyzers or constant monitoring using pull tubes. While federal regulations still require human ‘sniffers’, the GDS-68SXP provides a cost-effective, automated and objective way to continuously measure and report odorant levels throughout a natural gas distribution network.

**Reliable Measurements Day & Night**

The GDS-68 SXP Odorant Monitor automates the entire measurement process. Before displaying the calculated value, each result is verified for proper gas flow, zero drift, overrange, sensor response and more.

**Designed for Remote Environments**

The GDS-68SXP is designed to be installed in remote, unattended locations. Power usage is less than 10 watts, making solar-powered operation practical and reliable. Automatic calibration allows the GDS-68SXP to periodically perform System Calibration cycles on daily, weekly or monthly intervals. Error conditions are reported as multi-level fault values, allowing remote diagnosis via the 4-20mA analog output or RS-485 MODBUS interface.

**Advanced User Interface with Wireless Technology**

The GDS-68SXP features a large, easy-to-read color screen that displays the current reading, system status, time to next measurement and more. The companion GDS Connect iOS app for iPhone® connects to the GDS-68SXP via an internal wireless interface allowing the user to monitor or change settings and issue commands if GDS-68SXP user security settings allow.

**Hazardous Areas**

The GDS-68SXP is designed for use in Class I Division 1 hazardous areas and includes all rated components.

**Applications:**
- Gas Pipeline Monitoring
- Odorant Monitoring
- Custody Transfer Compliance
## GDS-68SXP SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Power Input</strong></td>
<td>24VDC +/- 5% at &lt; 10 watts. Optional heater requires 110VAC at 200 watts max. External wiring junction box for easy connection</td>
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<tr>
<td><strong>Primary Display</strong></td>
<td>Backlit high resolution color LCD display shows latest reading, calibration and sample history and more</td>
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<tr>
<td><strong>Sample Rate</strong></td>
<td>Up to 24 samples per day on one-hour intervals</td>
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<tr>
<td><strong>Repeatability</strong></td>
<td>5% of range</td>
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<tr>
<td><strong>Analog Output</strong></td>
<td>Standard 3-wire 4-20mA current source. Max loop R is 750 ohms with nominal 24VDC power supply.</td>
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<tr>
<td><strong>Digital Output</strong></td>
<td>RS-485 serial 2-wire MODBUS slave interface with user-programmable security levels that allow for read / write or read-only modes</td>
</tr>
<tr>
<td><strong>Wireless Output</strong></td>
<td>Integrated wireless interface communicates with GDS Connect App on iOS devices. User programmable security levels allow for full enable / disable and wireless read / write or read-only modes</td>
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<tr>
<td><strong>System Calibration</strong></td>
<td>User-initiated (“Manual”) system calibration from calibration gas port or gas sample stream. Programmable (“Automatic”) repeating system calibration on user-selected intervals from one day to six months.</td>
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<tr>
<td><strong>Gas Sensor</strong></td>
<td>GASMAX CX with highly sensitive electrochemical sensors for Mercaptans, THT or gas odorant mixtures. Includes sensor monitoring and temperature compensation for accurate measurements indoors or outdoors</td>
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<tr>
<td><strong>Purge Air Pump</strong></td>
<td>Long life diaphragm pump with brushless 24VDC motor.</td>
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<tr>
<td><strong>Sample Conditioning</strong></td>
<td>Max inlet pressure 1500 psig. High pressure stainless steel inlet filter with stainless steel regulator. Filter element PVDF fluorcarbon for removal of liquid aerosols, 99.99% removal of 0.1 micron particles.</td>
</tr>
<tr>
<td><strong>Sample Temp</strong></td>
<td>+5°C (+41°F) to +50°C (+122°F)</td>
</tr>
<tr>
<td><strong>Operating Temp</strong></td>
<td>0°C (32°F) to +50°C (+122°F)</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>XP enclosure: Cast aluminum. GASMAX CX: Aluminum housing with epoxy paint standard; Exterior stainless steel tubing and fittings. Backplate epoxy painted steel</td>
</tr>
<tr>
<td><strong>Dimensions</strong> (NEMA 4X)</td>
<td>24” x 24” x 8” Non-metallic (20 Kg / 45 pounds) 24” x 24” x 8” Stainless Steel Enclosure</td>
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<tr>
<td><strong>Inlet / Outlet</strong></td>
<td>1/4” compression, stainless steel</td>
</tr>
<tr>
<td><strong>Approvals</strong></td>
<td>GASMAX CX, enclosures and flame arrestors CSA Certified for Class I, Div 1, Grps B, C, D. Suitable for XP installations</td>
</tr>
<tr>
<td><strong>System Security</strong></td>
<td>Low setting - all user interaction allowed. Medium setting - operation from menu, no remote control. High setting - No access to menu without security code</td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td>Electronics - 2 years from date of purchase</td>
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## GDS-68SXP Order Guide

**GDS-68SXP-X-A-B-C / D-E-F**

- **“X”** SAMPLE CONDITIONING
  - 3 = Filter + Regulator

- **“A”** INPUT TYPE
  - 37 = Sensor Head w/ Flow Cell

- **“B”** SENSOR TYPE (10-99xx)
  - 30 = Tert-Butyl Mercaptan (TBM) (0-15 ppm, 0-3.00 lbs/mmcf, 0-50 mg/m3)
  - 31 = Tetrahydrothiophene (THT) (0-15 ppm, 0-3.00 lbs/mmcf, 0-50 mg/m3)
  - 40 = TBM / DMS Blends (0-3.00 lbs/mmcf, 0-50 mg/m3)
  - 41 = TBM / THT Blends (0-3.00 lbs/mmcf, 0-50 mg/m3)
  - 42 = TBM / MES Blends (0-3.00 lbs/mmcf, 0-50 mg/m3)
  - 43 = TBM / Mercaptans Blends (0-3.00 lbs/mmcf, 0-50 mg/m3)
  - 44 = General Mercaptans (0-3.00 lbs/mmcf, 0-50 mg/m3)

- **“C”** STANDARD RANGES
  - (-R0003) 0-3.00 lbs/mmcf
  - (-R0015) 0-15 ppm
  - (-R0050) 0-50 mg/m3
  (Contact factory for other ranges)

- **“D”** OUTPUT
  - 1 = 4-20mA + RS-485 MODBUS serial slave interface

- **“E”** ENCLOSURE
  - 1 = 24” x 24” non-metallic enclosure
  - 2 = 24” x 24” stainless steel enclosure
  - 3 = 24” x 24” non-m no window
  - 4 = 24” x 24” stainless no window

- **“F”** HEATER / INSULATION
  - 0 = None
  - 1 = 110VAC, 200W, 50F
  (Note: Fixed thermostat setting)

**[†]** OPTIONS
- [INS] = Enclosure Insulation
- [CMK] = Cal Cylinder Mounting Kit (internal or external mount)
- [BSAT] = Satellite-based Remote Data Access

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GDS Corp
1245 Butler Road
League City, Texas 77573
409-927-2980 • 409-927-4180 (fax)
www.gdscorp.com • info@gdscorp.com

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