

- **Continuous monitoring**
- **Flammable, oxygen or toxic gases**
- **Easily installed and maintained**
- **2 alarm levels & relays**
- **4~20mA analogue output**
- **Line blockage and pump fail monitor**
- **Delay to alarm option**



## Application

The GDS 301 system is designed to monitor gas levels in situations where the positioning of conventional gas sensors may not be practical. This may be due to equipment security, cable routing, access for detector head installation/maintenance, harsh environment or a cost effective means of monitoring designated hazardous areas, typically - tunnels, marine applications, underground/high level voids, process control, brewing, horticulture, livestock husbandry.

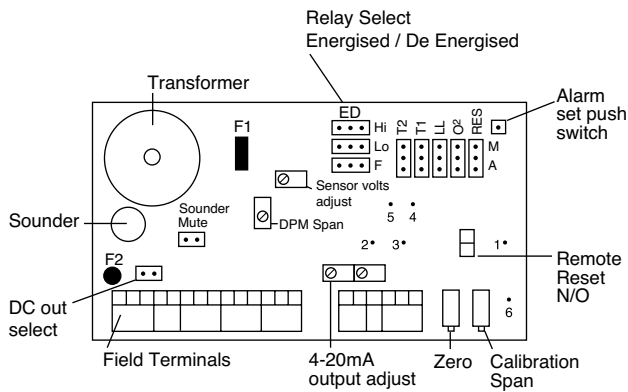
## Operation

A gas sample is continuously extracted via a fixed sample line from the target area. The central unit provides gas level readouts with two alarm trip points, providing a range of signal outputs for annunciator or control functions.

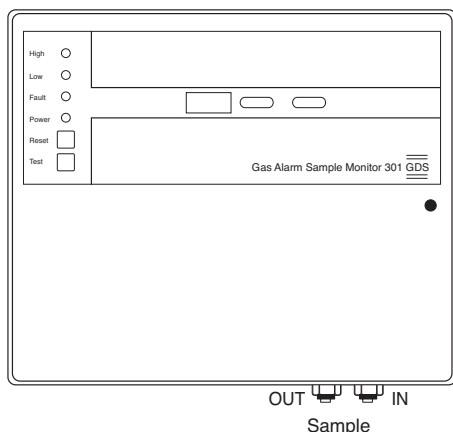
A wide range of sensor devices are available to suit customer requirements which include infra red, electrochemical, catalytic and other specialist sensors which offer a 4~20mA signal output.

**GDS**

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|-----------------------|---|----------------------|---|
| <b>Measurements</b>   | <ul style="list-style-type: none"> <li>• Combustible Gas L.E.L %Vol, ppm</li> <li>• Toxic Gas - ppm, %Vol</li> <li>• Oxygen % Vol</li> </ul>  | <b>Audible Alarm</b> | <ul style="list-style-type: none"> <li>• Low, High gas and Fault</li> <li>• Permanent mute option</li> </ul>  |
| <b>Power supply</b>   | <ul style="list-style-type: none"> <li>• 230/115vAC or 24vDC ± 15%</li> <li>• The two voltages may be used simultaneously (standby batteries)</li> </ul>  | <b>Reset Switch</b>  | <ul style="list-style-type: none"> <li>• Auto or Manual - pre set manual</li> </ul>   |
| <b>Frequency</b>      | <ul style="list-style-type: none"> <li>• 50/60Hz</li> </ul>   | <b>Test Switch</b>   | <ul style="list-style-type: none"> <li>• Used to check alarm indicators, sounder and relay action</li> </ul>  |
| <b>Consumption</b>    | <ul style="list-style-type: none"> <li>• 10 watts</li> </ul>  | <b>Inhibit</b>       | <ul style="list-style-type: none"> <li>• Isolation of alarm relays during service</li> </ul>  |
| <b>Alarm Settings</b> | <ul style="list-style-type: none"> <li>• Digital setting (fully adjustable between zero and full scale)</li> </ul>  | <b>Protection</b>    | <ul style="list-style-type: none"> <li>• IP65</li> </ul>  |
| <b>Alarm delay</b>    | <ul style="list-style-type: none"> <li>• T1 - 10 seconds, T2 - 30 seconds, T1 + T2 - 10 minutes</li> </ul>  | <b>Environmental</b> | <ul style="list-style-type: none"> <li>• Ambient temperature -5 to 45°C</li> <li>• Storage temperature +10 to 60°C</li> <li>• Humidity range 0 - 90 RH</li> </ul> |
| <b>Indicators</b>     | <ul style="list-style-type: none"> <li>• Power - Green L.E.D.</li> <li>• Alarms - Low/High - Red L.E.D.</li> <li>• Flow fail - Amber L.E.D.</li> <li>• Fault - Amber L.E.D.</li> <li>• System test alarm L.E.D's flashing</li> </ul>  | <b>Cable Entry</b>   | <ul style="list-style-type: none"> <li>• Rear, side, top, bottom</li> </ul>   |
| <b>Outputs</b>        | <ul style="list-style-type: none"> <li>• Low alarm relay - S.P.C.O</li> <li>• High alarm relay - S.P.C.O</li> <li>• Fault alarm relay - S.P.C.O</li> <li>• Flow fail - S.P.C.O</li> <li>• Relays rated 5A/230vAC</li> <li>• ND or NE pre set normally de energised</li> <li>• Analogue 4-20mA/1-5v</li> <li>• 24vDC - 100mA max (Auxiliary equipment supply)</li> </ul> | <b>Sample Tube</b>   | <ul style="list-style-type: none"> <li>• 6mm OD 4mm ID</li> <li>• Max. length 100m</li> </ul>   |
|                       |   | <b>Exhaust port</b>  | <ul style="list-style-type: none"> <li>• 8mm OD</li> </ul>  |
|                       |   | <b>Miscellaneous</b> | <ul style="list-style-type: none"> <li>• Dimensions 315mm W 265mm H 95mm D</li> <li>• Weight 3.8kg</li> <li>• Cable entry - bottom, sides, rear</li> </ul>        |



- TP1 - OV
- TP2 + } 4-20mA output mV=mA
- TP3 - }
- TP4 + } DPM span 0.5v=F.S.D
- TP5 - }
- TP6 and TP1 sensor supply mV = mA



This document is not contractual and the equipment specification may be modified at any time without prior notice.

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