The Sensepoint range of flammable, toxic and Oxygen gas detectors offer users a high quality, low cost solution to their industrial gas monitoring needs.
The Sensepoint range of flammable, toxic and Oxygen gas detectors offer users a high quality, low cost solution to their industrial gas monitoring needs. Installation in potentially explosive atmospheres is made by the use of a suitable Ex d or Ex e approved junction box. The industry standard outputs from Sensepoint are connected to either a choice of Honeywell Analytics’ controllers or 3rd party DCS/PLC systems. Both flammable and toxic versions are certified to the latest ATEX/IECEx safety and performance standards.

The flammable detector is available in either % LEL or PPM detection range versions and provides an industry standard mV bridge output. Typical life expectancy is greater than 5 years, after which the detector is simply replaced with a new one.

The toxic detectors are supplied pre calibrated for easy installation and provide an industry standard 2 wire 4-20mA loop output. User connections are Ex d, while front end Intrinsic Safety (IS) design allows for easy exchange of the replaceable sensor while powered. IS design also removes the need for a sinter enabling very fast speed of response and detection of ‘sticky’ gases such as Chlorine and Ammonia.

Sensepoint has proven its suitability across a wide range of demanding applications by delivering high performance and reliability at an affordable cost.
Installation Details

Dimensions

<table>
<thead>
<tr>
<th>Flammable % LEL or PPM Version</th>
<th>Toxic or Oxygen Version</th>
</tr>
</thead>
</table>

Sensepoint flammable and toxic gas detectors are installed using suitable Ex d or Ex e junction boxes. The standard junction box available from Honeywell Analytics includes an earth continuity plate for added RFI protection. The detectors have a choice of mounting thread size to match local preferences.

The Sensepoint range of flammable and toxic detectors are designed for use with a wide range of controllers available from Honeywell Analytics or with 3rd party control equipment accepting their industry standard output signals.
### Flammable % LEL Version

![3 Wire mV Bridge Circuit](image)

**Controller**
- `+VE`
- `Signal`
- `-VE`

**Sensepoint Detector**
- `+VE (Brown)`
- `Signal (White)`
- `-VE (Blue)`

**Typical Terminal Connections**
- Blue (NS)
- Brown (S)
- White (O1)
- +VE
- -VE

### Toxic or Oxygen Version

![2 Wire 4-20mA (Sink)](image)

**Controller**
- `+VE`
- `Signal`
- `-VE`

**Sensepoint Detector**
- `+VE (Red)`
- `Signal (Blue)`

**Typical Terminal Connections**
- Blue (NS)
- Red (S)
- Screen
- +VE
- -VE

### Flammable PPM Version

![3 Wire mV Bridge Circuit](image)

**Controller**
- `+VE`
- `Signal`
- `-VE`

**Sensepoint Detector**
- `+VE (Red)`
- `Signal (Green)`
- `-VE (Blue)`

**Typical Terminal Connections**
- Blue (NS)
- Red (S)
- Green (O1)
- +VE
- -VE

---

**Electrical Connections**

**Typical Terminal Connections**
<table>
<thead>
<tr>
<th>Gas &amp; Range</th>
<th>Flammable PPM (Typically 0-10% LEL)</th>
<th>Flammable PPM (Typically 0-10% LEL)</th>
<th>Hydrogen (H₂) 20/50/100ppm</th>
<th>Carbon Monoxide (CO) 100/200/500ppm</th>
<th>Ammonia (NH₃) 50/1000ppm</th>
<th>Chlorine (Cl₂) 5/15ppm</th>
<th>Oxygen (O₂) 1000/10000ppm</th>
<th>Hydrogen Sulfide (SO₂) 15/50ppm</th>
<th>Nitrogen Dioxide (NO₂) 100ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temp</td>
<td>-40 to +80°C</td>
<td>-30 to +85°C</td>
<td>-25 to +50°C</td>
<td>-20 to +50°C</td>
<td>-20 to +40°C</td>
<td>-20 to +40°C</td>
<td>-15 to +40°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>Continuous: 20 to 90% RH (non-condensing); Intermittent: 10 to 99% RH (non-condensing)</td>
<td>0 to 25°C; 30 to 70% RH</td>
<td></td>
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<tr>
<td>Storage Conditions</td>
<td>0 to 25°C; 30 to 70% RH</td>
<td></td>
<td></td>
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<tr>
<td>Operating Pressure</td>
<td>90 to 110kPa</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Warm-up Time</td>
<td>&lt; 10 minutes</td>
<td>&lt; 20 minutes</td>
<td>&lt; 3 minutes</td>
<td>&lt; 5 minutes</td>
<td>&lt; 3 minutes</td>
<td>12 hours</td>
<td>1 hour</td>
<td></td>
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<tr>
<td>Response Time</td>
<td>T20</td>
<td>&lt; 6 secs</td>
<td>&lt; 5 secs</td>
<td>–</td>
<td>&lt; 10 secs</td>
<td>&lt; 3 secs</td>
<td>–</td>
<td>–</td>
<td>&lt; 3 secs</td>
</tr>
<tr>
<td>T50</td>
<td>&lt; 5 secs</td>
<td>&lt; 15 secs</td>
<td>&lt; 12 secs</td>
<td>&lt; 10 secs</td>
<td>&lt; 20 secs</td>
<td>&lt; 5 secs</td>
<td>&lt; 10 secs</td>
<td>&lt; 10 secs</td>
<td>&lt; 5 secs</td>
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<tr>
<td>T90</td>
<td>&lt; 10 secs</td>
<td>&lt; 40 secs</td>
<td>&lt; 30 secs</td>
<td>&lt; 65 secs</td>
<td>&lt; 105 secs</td>
<td>&lt; 10 secs</td>
<td>&lt; 45 secs</td>
<td>&lt; 90 secs</td>
<td>&lt; 30 secs</td>
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<td>Supply</td>
<td>200mA; 0.7W maximum</td>
<td>18 to 30VDC; 0.9W maximum</td>
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<td>Signal Output</td>
<td>mV bridge</td>
<td>Loop powered 4-20mA</td>
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<td>Linearity</td>
<td>&lt; 5% fsd or ±10% of reading</td>
<td>&lt; 5% fsd</td>
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<tr>
<td>Operating Life</td>
<td>5 years (typical)</td>
<td>2 years (typical)</td>
<td>18 months (typical)</td>
<td>1 year (typical)</td>
<td>18 months (typical)</td>
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<tr>
<td>Storage Life</td>
<td>Typically, over 5 years when in original sealed packaging</td>
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<tr>
<td>Stability (zero)</td>
<td>with time*</td>
<td>&lt; ±3% fsd / yr</td>
<td>&lt; ±3% fsd / yr</td>
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<td></td>
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<tr>
<td>with temperature**</td>
<td>&lt; ±1% fsd</td>
<td>&lt; ±3% fsd</td>
<td>&lt; ±5% fsd</td>
<td>&lt; ±8% fsd</td>
<td>&lt; ±2% fsd</td>
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<td>&lt; ±2% fsd</td>
<td>&lt; ±5% fsd</td>
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<tr>
<td>with humidity</td>
<td>&lt; ±1% fsd</td>
<td>&lt; ±10% fsd</td>
<td>&lt; ±2% fsd</td>
<td>&lt; ±10% fsd</td>
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<td>&lt; ±2% fsd</td>
<td>&lt; ±10% fsd</td>
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<tr>
<td>Stability (span)</td>
<td>with time*</td>
<td>&lt; ±3% fsd / yr</td>
<td>&lt; ±2% fsd / yr</td>
<td>&lt; ±4% fsd / yr</td>
<td>&lt; ±20% fsd / yr</td>
<td>&lt; ±10% fsd / yr</td>
<td>&lt; ±20% fsd / yr</td>
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<tr>
<td>with temperature***</td>
<td>&lt; ±3% fsd</td>
<td>&lt; ±8% fsd</td>
<td>&lt; ±25% fsd</td>
<td>&lt; ±20% fsd</td>
<td>&lt; ±20% fsd</td>
<td>&lt; ±40% fsd</td>
<td>&lt; ±10% fsd</td>
<td>&lt; ±60% fsd</td>
<td>&lt; ±15% fsd</td>
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<tr>
<td>with humidity</td>
<td>&lt; ±2% fsd</td>
<td>&lt; ±10% fsd</td>
<td>&lt; ±2% fsd</td>
<td>&lt; ±10% fsd</td>
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<td>205g</td>
<td>185g</td>
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<td>Polyphenylene Sulphide (PPS)</td>
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<td>I.P. (NEMA) Rating</td>
<td>IP65 (standard), IP67 (with weather protection fitted)</td>
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<td>Certification Details (ATEX/ IECEx)</td>
<td>II 2 GD Ex ia IIC T4 T ≤ -40°C to +65°C</td>
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<td>II 2 GD Ex d IIC T50 °C T20 T20°C to +70°C</td>
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<td>Other Certifications</td>
<td>Russian: GOST</td>
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<td>Applicable Standards</td>
<td>This product complies with the relevant CE standards including: EMC to EN50082-7-29-1</td>
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</tbody>
</table>

**Notes:**
1. High temp range version available -55 to +190°C – See separate datasheet DS0303
2. Over temp range: -20 to +50°C
3. % of range (fsd) per year
4. Over operating temperature range
5. % of applied concentration
Ordering Information

Accessories
00780-A-0100 Term Hsg – Bartec DE1155 With Continuity Plate
1 x 25mm – 3 x 20mm Entries – ATEX Approved
00780-A-0160 Right Angle Mounting Bracket For Ceiling Mounting
02000-A-1635 Series 2000 Weather Housing Use With Toxic Sensor
02000-A-1640 Series 2000 Weather Housing Use With Flammable Sensor
02000-A-1642 Series 2000 Collecting Cone Use With Flammable Sensor
02000-A-1645 Series 2000 Calibration Flow Housing Assembly (Flam and Toxic)
02000-A-3120 Series 2000 Flow Housing Assembly Plastic
2106B1110 Catalytic Bridge To 4-20mA Converter
2106B2114 Toxic Calibration Kit including Calibration Cover, Removal Tool, Potentiometer Adjustment Tool
2106D02055 M36 / M40 Thread Adaptor
225-26-2138 Cable Gland And Caps, 20mm, Nylon

Spares
2106B1545 O₂ Electrochemical Cell Exchange Kit
2106B1546 0₂ Electrochemical Cell Exchange Kit
2106B1547 0₂ Electrochemical Cell Exchange Kit
2106B1548 CO Electrochemical Cell Exchange Kit
2106B1549 H₂S Electrochemical Cell Exchange Kit
2106B1594 NO Electrochemical Cell Exchange Kit
2106B1595 NH₃, 0-1000ppm Electrochemical Cell Exchange Kit
2106B1596 NH₃, 0-50ppm Electrochemical Cell Exchange Kit
2106B1597 H₂, 0-1000ppm Electrochemical Cell Exchange Kit
2106B1598 H₂, 0-1000ppm Electrochemical Cell Exchange Kit
2106B1599 NO₂, 0-10ppm Electrochemical Exchange Kit

Calibration Equipment
- Contact your local Honeywell Analytics representative for details of suitable calibration equipment

Find out more
www.honeywellanalytics.com

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09/12
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