



**The Sensepoint range of flammable, toxic and Oxygen gas detectors offer users a high quality, low cost solution to their industrial gas monitoring needs.**



## Fit For Purpose

- Flammable, toxic and Oxygen versions available
- High performance, low cost
- Suitable for new and retro fit applications

## Proven Sensor Technology

- Surecell™ electrochemical sensors
- Poison resistant catalytic bead
- Fast and reliable
- Typical 2 to 5 years operational life

## ATEX/IECEx Certified

- Complies with the latest standards
- Hazardous area approval and performance
- IP65/67 for use in harsh environments

## Easy to Use

- Factory set operation
- Simple to replace
- Minimal training required

## Range of Accessories

- Weatherproof cap
- Flow adaptor
- Duct mounting kit
- Collecting cone

**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.

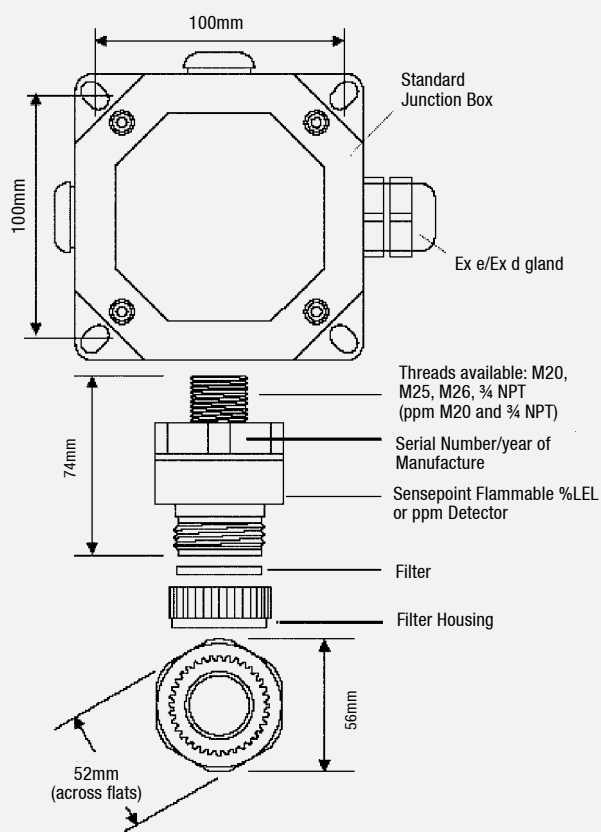
Sensepoint has proven its suitability across a wide range of demanding applications by delivering high performance and reliability at an affordable cost.

# Installation Details

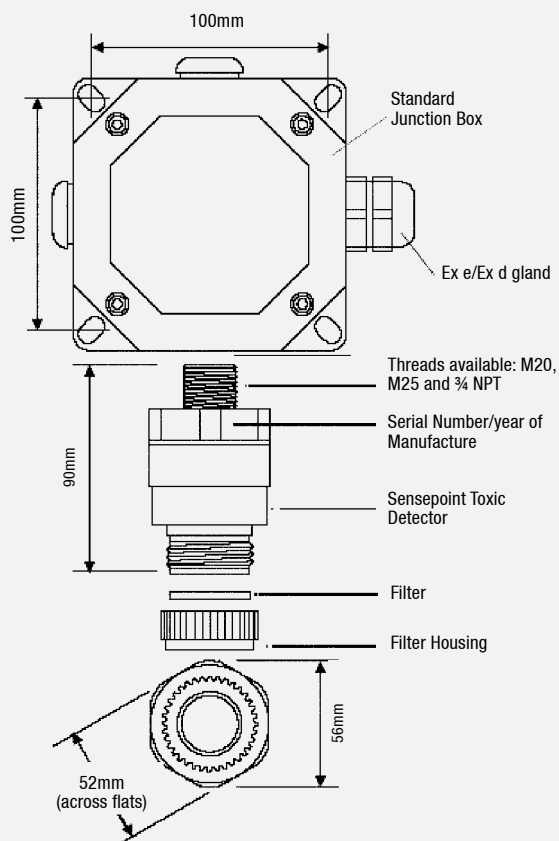


## Dimensions

### Flammable % LEL or PPM Version



### Toxic or Oxygen Version



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.

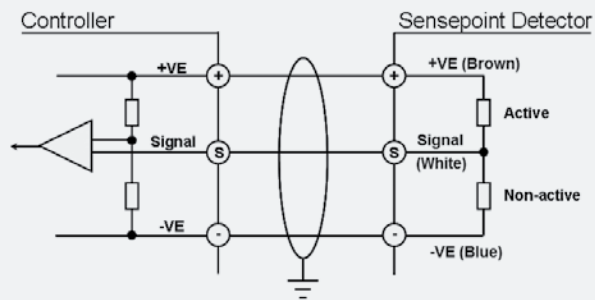
# Installation Details



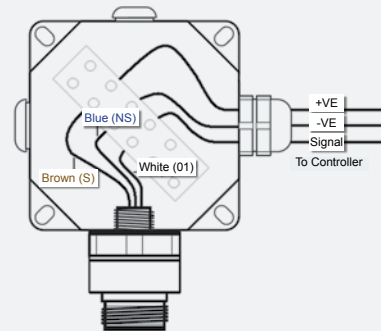
## Electrical Connections

## Typical Terminal Connections

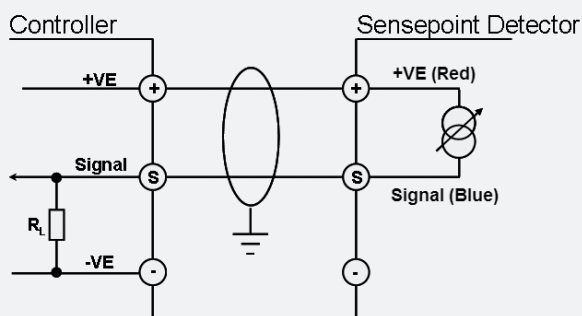
### Flammable % LEL Version



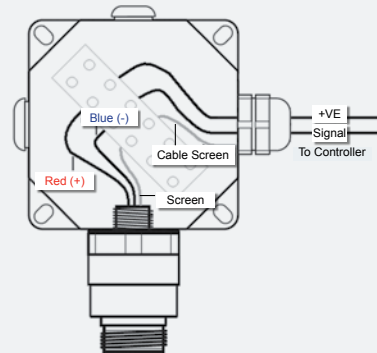
3 Wire mV Bridge Circuit



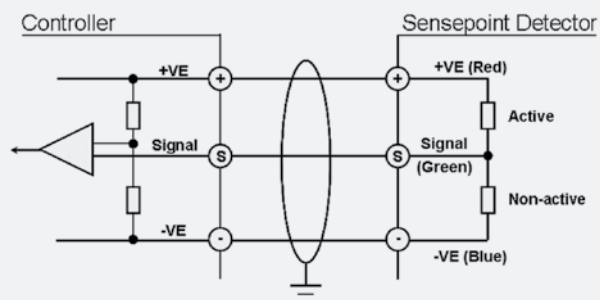
### Toxic or Oxygen Version



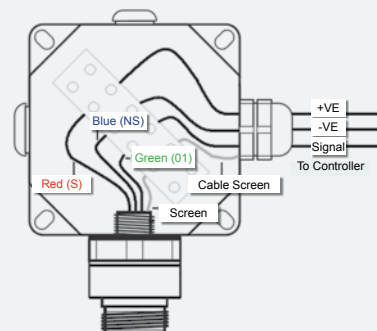
2 Wire 4-20mA (Sink)



### Flammable PPM Version



3 Wire mV Bridge Circuit



# Technical Specification



Gas & Range	Flammable 0-100% LEL	Flammable PPM (Typically 0-10% LEL)	Hydrogen Sulphide (H <sub>2</sub> S) 20/50/100ppm	Carbon Monoxide (CO) 100/200/500ppm	Ammonia (NH <sub>3</sub> ) 50/1000ppm	Chlorine (Cl <sub>2</sub> ) 5/15ppm	Oxygen (O <sub>2</sub> ) 25% V / V	Hydrogen (H <sub>2</sub> ) 1000/10000ppm	Sulfur Dioxide (SO <sub>2</sub> ) 15/50ppm	Nitric Oxide (NO) 100ppm	Nitrogen Dioxide (NO <sub>2</sub> ) 10ppm
Operating Temp	-40 to +80°C¹	-30 to +65°C	-25 to +50°C	-20 to +50°C	-20 to +40°C	-20 to +50°C	-15 to +40°C				
Operating Humidity	Continuous: 20 to 90% RH (non-condensing). Intermittent: 10 to 99% RH (non-condensing)										
Storage Conditions	0 to 25°C; 30 to 70% RH		0 to 25°C; 30 to 70% RH								
Operating Pressure	90 to 110kPa										
Warm-up Time	< 10 minutes	< 20 minutes	< 3 minutes			< 5 minutes		< 3 minutes		12 hours	1 hour
Response Time											
T20			< 6 secs	< 5 secs	—	< 10 secs	< 3 secs	—	—	< 3 secs	< 15 secs
T50	< 5 secs		< 15 secs	< 12 secs	< 10 secs	< 20 secs	< 5 secs	< 10 secs	< 10 secs	< 5 secs	< 30 secs
T90	< 10 secs		< 40 secs	< 30 secs	< 65 secs	< 105 secs	< 10 secs	< 45 secs	< 90 secs	< 30 secs	< 60 secs
Supply	200mA; 0.7W maximum		18 to 30VDC; 0.9W maximum								
Signal Output	mV bridge		Loop powered 4-20mA								
Linearity	< 5% fsd or ±10% of reading		< 5% fsd								
Operating Life	5 years (typical)		2 years (typical)		18 months (typical)		1 year (typical)	18 months (typical)			
Storage Life	Typically, over 5 years when in original sealed packaging		6 months.								
Stability (zero)											
with time*	< ±3% fsd / yr		< ±2% fsd / yr								
with temperature**	< ±1% fsd²	< ±3% fsd	< ±5% fsd		< ±6% fsd	< ±2% fsd		< ±2% fsd	< ±5% fsd		
with humidity	< ±1% fsd		< ±10% fsd	< ±2% fsd	< ±10% fsd	< ±2% fsd		< ±2% fsd	< ±10% fsd		
Stability (span)											
with time*	< ±3% fsd / yr		< ±2% fsd / yr	< ±4% fsd / yr	< ±20% fsd / yr	< 10% fsd / yr	< ±20% fsd / yr	< ±2% fsd / yr			
with temperature***	< ±3% fsd	< ±8% fsd	< ±25% fsd	< ±20% fsd	< ±20% fsd	< 40% fsd	< ±10% fsd	< ±60% fsd	< ±15% fsd	< ±25% fsd	
with humidity	< ±2% fsd		< ±10% fsd	< ±2% fsd	< ±10% fsd	< ±2% fsd	< ±1% fsd	< ±2% fsd	< ±10% fsd		
Weight	190g		185g				205g	185g			
Construc. Materials	Polyphenylene Sulphide (PPS)										
I.P. (NEMA) Rating	IP65 (standard), IP67 (with weather protection fitted)										
Certification Details (ATEX/ IECEx)	Ⓔ II 2 GD Ex d IIC Gb T85°C T <sub>amb</sub> -40°C to +55°C Ⓔ II 2 GD Ex d IIC Gb T100°C T <sub>amb</sub> -40°C to +70°C Ⓔ II 2 GD Ex d IIC Gb T135°C T <sub>amb</sub> -40°C to +80°C Ⓔ tb IIC A21 Db IP67 Baseefa08ATEX0265X IECEx BAS08.0068X		Ⓔ II 2 GD Ex d Ia IIC T4 Gb T <sub>amb</sub> -40°C to +65°C Ⓔ tb IIC A21 IP67 T135°C Db Baseefa08ATEX0263X IECEx BAS08.0070X								
Other Certifications	Russian: GOST										
Applicable Standards	This product complies with the relevant CE standards including: EMC to EN50270, Flammable sensor to EN60079-29-1										

## NOTES

<sup>1</sup> High temp range version available -55 to +150°C – See separate datasheet DS0303

<sup>2</sup> Over temp range -20 to +55°C

\* = % of range (fsd) per year

\*\* Over operating temperature range

\*\*\* = % 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
2106D2055	M36 / M40 Thread Adaptor
225-262-138	Cable Gland And Caps, 20mm, Nylon

### Spares

2106B1545	O <sub>2</sub> Electrochemical Cell Exchange Kit
2106B1546	SO <sub>2</sub> Electrochemical Cell Exchange Kit
2106B1547	Cl <sub>2</sub> Electrochemical Cell Exchange Kit
2106B1548	CO Electrochemical Cell Exchange Kit
2106B1549	H <sub>2</sub> S Electrochemical Cell Exchange Kit
2106B1594	NO Electrochemical Cell Exchange Kit
2106B1595	NH <sub>3</sub> 0-1000ppm Electrochemical Cell Exchange Kit
2106B1596	NH <sub>3</sub> 0-50ppm Electrochemical Cell Exchange Kit
2106B1597	H <sub>2</sub> 0-1000ppm Electrochemical Cell Exchange Kit
2106B1598	H <sub>2</sub> 0-10000ppm Electrochemical Exchange Kit
2106B1599	NO <sub>2</sub> 0-10ppm Electrochemical Exchange Kit

### Calibration Equipment

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

### Sensepoint Combustible

2106B1200	Sensepoint 0-100% LEL Flammable Sensor M20
2106B1201	Sensepoint 0-100% LEL Flammable Sensor M25
2106B1202	Sensepoint 0-100% LEL Flammable Sensor M26
2106B1203	Sensepoint 0-100% LEL Flammable Sensor M26 (VQ1AB pellistor)
2106B1204	Sensepoint 0-100% LEL Flammable Sensor ¾"NPT
2106B1205	Sensepoint ppm (0-10% LEL) Flammable Sensor M20
2106B1209	Sensepoint ppm (0-10% LEL) Flammable Sensor ¾"NPT

### Sensepoint Toxic

2106B1400	Sensepoint H <sub>2</sub> S 0-20 ppm Toxic Sensor M20
2106B1401	Sensepoint H <sub>2</sub> S 0-50 ppm Toxic Sensor M20
2106B1402	Sensepoint H <sub>2</sub> S 0-100 ppm Toxic Sensor M20
2106B1500	Sensepoint H <sub>2</sub> S 0-20 ppm Toxic Sensor M25
2106B1501	Sensepoint H <sub>2</sub> S 0-50 ppm Toxic Sensor M25
2106B1502	Sensepoint H <sub>2</sub> S 0-100 ppm Toxic Sensor M25
2106B1700	Sensepoint H <sub>2</sub> S 0-20 ppm Toxic Sensor ¾"NPT
2106B1701	Sensepoint H <sub>2</sub> S 0-50 ppm Toxic Sensor ¾"NPT
2106B1702	Sensepoint H <sub>2</sub> S 0-100 ppm Toxic Sensor ¾"NPT
2106B1405	Sensepoint CO 0-100 ppm Toxic Sensor M20
2106B1406	Sensepoint CO 0-200 ppm Toxic Sensor M20
2106B1407	Sensepoint CO 0-500 ppm Toxic Sensor M20
2106B1505	Sensepoint CO 0-100 ppm Toxic Sensor M25
2106B1506	Sensepoint CO 0-200 ppm Toxic Sensor M25
2106B1507	Sensepoint CO 0-500 ppm Toxic Sensor M25
2106B1705	Sensepoint CO 0-100 ppm Toxic Sensor ¾"NPT
2106B1706	Sensepoint CO 0-200 ppm Toxic Sensor ¾"NPT
2106B1707	Sensepoint CO 0-500 ppm Toxic Sensor ¾"NPT
2106B1410	Sensepoint Cl <sub>2</sub> 0-5 ppm Toxic Sensor M20
2106B1411	Sensepoint Cl <sub>2</sub> 0-15 ppm Toxic Sensor M20
2106B1510	Sensepoint Cl <sub>2</sub> 0-5 ppm Toxic Sensor M25
2106B1511	Sensepoint Cl <sub>2</sub> 0-15 ppm Toxic Sensor M25
2106B1711	Sensepoint Cl <sub>2</sub> 0-15 ppm Toxic Sensor ¾"NPT
2106B1413	Sensepoint NH <sub>3</sub> 0-50 ppm Toxic Sensor M20
2106B1414	Sensepoint NH <sub>3</sub> 0-1000 ppm Toxic Sensor M20
2106B1415	Sensepoint NH <sub>3</sub> 0-100 ppm Toxic Sensor M20
2106B1513	Sensepoint NH <sub>3</sub> 0-50 ppm Toxic Sensor M25
2106B1514	Sensepoint NH <sub>3</sub> 0-1000 ppm Toxic Sensor M25
2106B1515	Sensepoint NH <sub>3</sub> 0-100 ppm Toxic Sensor M25
2106B1713	Sensepoint NH <sub>3</sub> 0-50 ppm Toxic Sensor ¾"NPT
2106B1714	Sensepoint NH <sub>3</sub> 0-1000 ppm Toxic Sensor ¾"NPT
2106B1715	Sensepoint NH <sub>3</sub> 0-100 ppm Toxic Sensor ¾"NPT
2106B1416	Sensepoint H <sub>2</sub> 0-1000 ppm Toxic Sensor M20
2106B1417	Sensepoint H <sub>2</sub> 0-10000 ppm Toxic Sensor M20
2106B1516	Sensepoint H <sub>2</sub> 0-1000 ppm Toxic Sensor M25
2106B1517	Sensepoint H <sub>2</sub> 0-10000 ppm Toxic Sensor M25
2106B1716	Sensepoint H <sub>2</sub> 0-1000 ppm Toxic Sensor ¾"NPT
2106B1717	Sensepoint H <sub>2</sub> 0-10000 ppm Toxic Sensor ¾"NPT
2106B1418	Sensepoint NO 0-100 ppm Toxic Sensor M20
2106B1518	Sensepoint NO 0-100 ppm Toxic Sensor M25
2106B1718	Sensepoint NO 0-100 ppm Toxic Sensor ¾"NPT
2106B1420	Sensepoint SO <sub>2</sub> 0-15 ppm Toxic Sensor M20
2106B1421	Sensepoint SO <sub>2</sub> 0-50 ppm Toxic Sensor M20
2106B1520	Sensepoint SO <sub>2</sub> 0-15 ppm Toxic Sensor M25
2106B1521	Sensepoint SO <sub>2</sub> 0-50 ppm Toxic Sensor M25
2106B1720	Sensepoint SO <sub>2</sub> 0-15 ppm Toxic Sensor ¾"NPT
2106B1721	Sensepoint SO <sub>2</sub> 0-50 ppm Toxic Sensor ¾"NPT
2106B1422	Sensepoint NO <sub>2</sub> 0-10 ppm Toxic Sensor M20
2106B1522	Sensepoint NO <sub>2</sub> 0-10 ppm Toxic Sensor M25
2106B1722	Sensepoint NO <sub>2</sub> 0-10 ppm Toxic Sensor ¾"NPT
2106B1430	Sensepoint O <sub>2</sub> 25% V/V Toxic Sensor M20
2106B1530	Sensepoint O <sub>2</sub> 25% V/V Toxic Sensor M25
2106B1730	Sensepoint O <sub>2</sub> 25% V/V Toxic Sensor ¾"NPT

#### Please Note:

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.

H\_Sensepoint\_DS01069\_V5\_EMEA

05/10

© 2010 Honeywell Analytics

# Honeywell