## **Honeywell**





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

## Sensepoint





## **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 Certified**

- Complies with the latest European standards
- Hazardous area approval and performance
- IP 65/66 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 Exd or Exe 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 European ATEX 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.

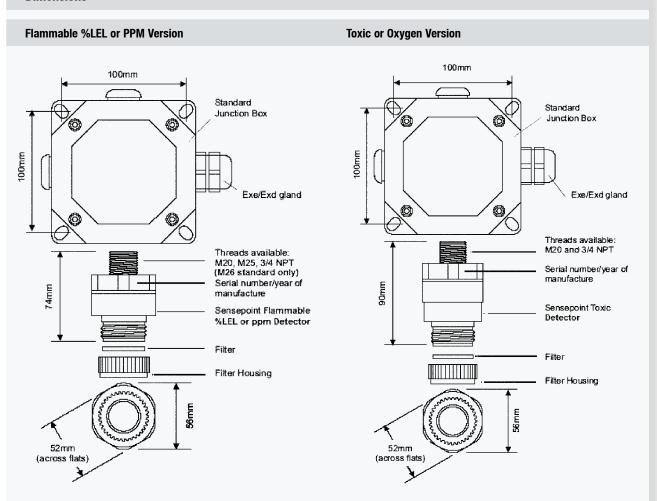
The toxic detectors are supplied pre calibrated for easy installation and provide an industry standard 2 wire 4-20mA loop output. User connections are Exd, while front end Intrinsic Safety (IS) design allows for easy exchange of the replaceable sensor while powered. IS design also removes the need for 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**



Sensepoint flammable and toxic gas detectors are installed using suitable Exd or Exe 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**

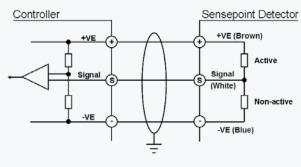




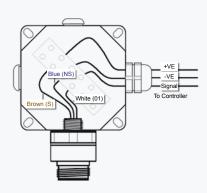
## **Electrical Connections**

## **Typical Terminal Connections**

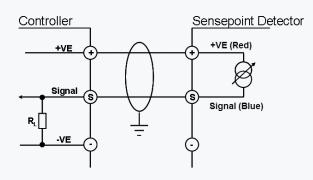
## Flammable %LEL Version



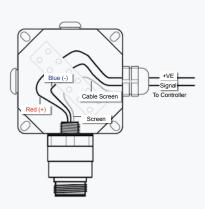
3 Wire mV Bridge Circuit



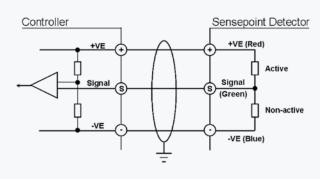
## **Toxic or Oxygen Version**



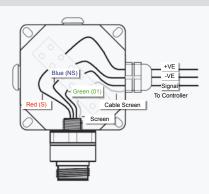
2 Wire 4-20mA (Sink)



## **Flammable PPM Version**



3 Wire mV Bridge Circuit



# **Technical Specification**





Gas & Range	Flammable 0-100%LEL	Flammable PPM (Typically 0-10%LEL)	Hydrogen Sulfide (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	0xygen (0 <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	-55 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 30V dc; 0.9W maximum									
Signal Output	mV bridge Loop powered 4 to 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					18 month	nonths (typical)			
Storage Life	Typically, over 5 years when in original sealed packaging		6 months.									
Stability (zero)												
with time*	< ±39	6 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*	< ±39	6 fsd/yr	< ±2% fsd/yr	< ±4% fsd/yr	< ±20% fsd/yr	< 10% fsd/yr	< ±20% fsd/yr		< ±29	fsd/yr		
with temperature***	$< \pm 3\%$ fsd	< ±8% fsd	< ±25% fsd	< ±20% fsd	$< \pm 20\%$ fsd	< 40% fsd	< ±10% fsd	< ±60% fsd	$< \pm 15\%$ fsd	< ±2	25% fsd	
with humidity	< ±2	% fsd	< ±10% fsd	< ±2% fsd	< ±10% fsd	< ±2% fsd	< ±1% fsd	< ±2% fsd		< ±10% fsd		
Weight	190g		185g 205g 185g0									
Construc. Materials	Polyphenylene sulfide (PPS)											
I.P. (NEMA) Rating	IP65 (standard), IP67 (with weather protection fitted)											
Certification Details (ATEX)	T6 (Tamb = - T5 (Tamb = - BAS98A	D EEx d IIC 55°C to +55°C) 55°C to +70°C) <sup>3</sup> TEX2156X/4 16X (Performance)	Ex II 2 GD EEx dia IIC T4 (Tamb = -55°C to +65°C) BAS90ATEX2157X/5									
Other Certifications	Australian: SAA, Russian: GOST											
Applicable Standards	This product complies with the relevant CE standards including: EMC to EN50270, Flammable to EN50054/57, Toxic to EN445544 (H,S only)											

#### NOTES

- $^{\rm 1}$  High temp range version available -55 to +150  $^{\circ}{\rm C}$  See separate datasheet DS0303
- <sup>2</sup> Over temp range -20 to +55°C
- LEL version T4 -55 to +80°C, T3 -55 to +150°C
- \* = % of range (fsd) per year
- \*\* Over operating temperature range
- $^{\star\star\star}$  = % of applied concentration

### **Ordering Information**

J						
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 & 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 E	quipment					
	Contact your local Honeywell Analytics representative for details of suitable calibration equipment					

### Find out more

www.honeywellanalytics.com

### **Contact Honeywell Analytics:**

## Europe, Middle East, Africa

Life Safety Distribution AG Wilstrasse 11-U31 CH-8610 Uster Switzerland

Tel: +41 (0)44 943 4300 Fax: +41 (0)44 943 4398 gasdetection@honeywell.com

### **Americas**

Honeywell Analytics Distribution, Inc. 405 Barclay Blvd. Lincolnshire, IL 60069 USA

Tel: +1 847 955 8200 Toll free: +1 800 538 0363 Fax: +1 847 955 8208 detectgas@honeywell.com

## Asia Pacific

Honeywell Analytics Asia Pacific #508, Kolon Science Valley (1) 187-10 Guro-Dong, Guro-Gu Seoul, 152-050, Korea

Tel: +82 (0)2 2025 0307 Fax: +82 (0)2 2025 0329 analytics.ap@honeywell.com

## **Technical Services**

ha.emea.service@honeywell.com

www.honeywell.com

#### 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.

2106B1730

H\_Sensepoint\_DS0326\_V4\_EMEA 09/07
© 2007 Honeywell Analytics

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 3/4NPT
2106B1205	Sensepoint ppm (0-10% LEL) Flammable Sensor M20
2106B1209	Sensepoint ppm (0-10%LEL) Flammable Sensor 3/4NPT
Sensepoint	Toxic
2106B1400	Sensepoint Hydrogen Sulfide (H <sub>2</sub> S) 0-20ppm Toxic Sensor M20
2106B1401	Sensepoint Hydrogen Sulfide (H <sub>2</sub> S) 0-50ppm Toxic Sensor M20
2106B1402	Sensepoint Hydrogen Sulfide (H <sub>2</sub> S) 0-100ppm Toxic Sensor M20
2106B1700	Sensepoint Hydrogen Sulfide (H <sub>2</sub> S) 0-20ppm Toxic Sensor 3/4NPT
2106B1701	Sensepoint Hydrogen Sulfide (H <sub>2</sub> S) 0-50ppm Toxic Sensor 3/4NPT
2106B1702	Sensepoint Hydrogen Sulfide ( $\rm H_2S$ ) 0-20ppm Toxic Sensor 3/4NPT
2106B1405	Sensepoint Carbon Monoxide (CO) 0-100ppm Toxic Sensor M20
2106B1406	Sensepoint Carbon Monoxide (CO) 0-200ppm Toxic Sensor M20
2106B1407	Sensepoint Carbon Monoxide (CO) 0-500ppm Toxic Sensor M20
2106B1705	Sensepoint Carbon Monoxide (CO) 0-100ppm Toxic Sensor 3/4NPT
2106B1706	Sensepoint Carbon Monoxide (CO) 0-200ppm Toxic Sensor 3/4NPT
2106B1707	Sensepoint Carbon Monoxide (CO) 0-500ppm Toxic Sensor 3/4NPT
2106B1410	Sensepoint Chlorine (Cl <sub>2</sub> ) 0-5ppm Toxic Sensor M20
2106B1411	Sensepoint Chlorine (Cl <sub>2</sub> ) 0-15ppm Toxic Sensor M20
2106B1711	Sensepoint Chlorine (Cl <sub>2</sub> ) 0-15ppm Toxic Sensor 3/4NPT
2106B1413	Sensepoint Ammonia (NH $_{\rm 3}$ ) 0-50ppm Toxic Sensor M20
2106B1414	Sensepoint Ammonia (NH <sub>3</sub> ) 0-1000ppm Toxic Sensor M20
2106B1415	Sensepoint Ammonia (NH <sub>3</sub> ) 0-100ppm Toxic Sensor M20
2106B1713	Sensepoint Ammonia (NH <sub>3</sub> ) 0-50ppm Toxic Sensor 3/4NPT
2106B1714	Sensepoint Ammonia (NH <sub>3</sub> ) 0-1000ppm Toxic Sensor 3/4NPT
2106B1715	Sensepoint Ammonia (NH <sub>3</sub> ) 0-100ppm Toxic Sensor 3/4NPT
2106B1416	Sensepoint Hydrogen (H <sub>2</sub> ) 0-1000ppm Toxic Sensor M20
2106B1417	Sensepoint Hydrogen (H <sub>2</sub> ) 0-10000ppm Toxic Sensor M20
2106B1716	Sensepoint Hydrogen (H <sub>2</sub> ) 0-1000ppm Toxic Sensor 3/4NPT
2106B1717	Sensepoint Hydrogen (H <sub>2</sub> ) 0-10000ppm Toxic Sensor 3/4NPT
2106B1418	Sensepoint Nitric Oxide (NO) 0-100ppm Toxic Sensor M20
2106B1718	Sensepoint Nitric Oxide (NO) 0-100ppm Toxic Sensor 3/4NPT
2106B1420	Sensepoint Sulfur Dioxide (SO <sub>2</sub> ) 0-15ppm Toxic Sensor M20
2106B1421	Sensepoint Sulfur Dioxide (SO <sub>2</sub> ) 0-50ppm Toxic Sensor M20
2106B1720	Sensepoint Sulfur Dioxide (SO <sub>2</sub> ) 0-15ppm Toxic Sensor 3/4NPT
2106B1721	Sensepoint Sulfur Dioxide (SO <sub>2</sub> ) 0-50ppm Toxic Sensor 3/4NPT
2106B1422	Sensepoint Nitrogen Dioxide (NO <sub>2</sub> ) 0-10ppm Toxic Sensor M20
2106B1722	Sensepoint Nitrogen Dioxide (NO <sub>2</sub> ) 0-10ppm Toxic Sensor 3/4NPT
2106B1430	Sensepoint Oxygen (0 <sub>2</sub> ) 25% V/V Toxic Sensor M20



Sensepoint Oxygen (02) 25% V/V Toxic Sensor 3/4NPT