# 1SO<sub>2</sub> Sensor

Sulphur Dioxide (SO<sub>2</sub>) Analogue Gas Sensor Part Number: AD300-R04A-CIT

## **Document Purpose**

The purpose of this document is to present the performance specification of the 1series 1SO<sub>2</sub> sulphur dioxide gas sensor.

This document should be used in conjunction with the  ${\rm 1SO_2}$  Characterisation Note, the Operating Principles (OP08), and the Product Safety Datasheet (PSDS 11).

For guidance on sensor performance outside of these limits, please refer to the  $150_{\circ}$  Characterisation Note.

Output signal can drift below the lower limit over time. For guidance on the safe use of the sensor, please refer to the Operating Principles (OP08).



## KEY FEATURES & BENEFITS



Enables smaller instruments



Designed to meet global performance standards:

ANSI/ISA 92.00.01-2010 BS EN 45544-1:2015



Enhanced performance over an extended environmental range



5-year expected operating life in clean air

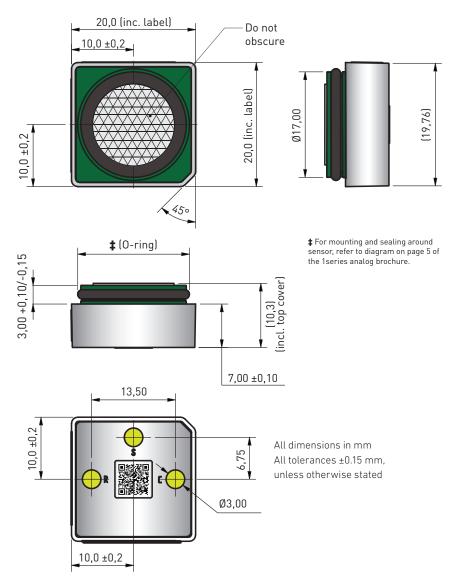
RoHS Ø

RoHS compliant

TECHNICAL SPECIFICATIONS           Measurement         3 electrode electrochemical           Measurement Range         0.1 ppm SO₂ to 20 ppm SO₂           Maximum Overload         150 ppm SO₂           Filter         To remove H₂S           Filter Capacity         400 ppm hours @ 25 ppm H₂S           Sensitivity*         160 nA/ppm ±40 nA/ppm           T90 Response Time*         Typically < 30 seconds           T50 Response Time*         -0.2 ppm to 0.5 ppm equivalent           Zero Shift (20°C to 40°C)         < 0.2 ppm equivalent           Linear over measurement range 0 ppm to 20 ppm and within ±5%         Linear over measurement range 0 ppm to 20 ppm and within ±5%           Electrical         Recommended Load Resistor         10 Ω           Bias Voltage         No bias           Mechanical         Weight         < 5 g           Outer Plastic Body Mat'l Modified PPO         Modified PPO           O-ring Material         FKM75 ±5 shore A           Contact Material         Gold plated           Orientation Sensitivity         None           Environmental         Portable life safety           Operating Temperature Range (Continuous)         -20°C to 50°C           Operating Temperature Range (Intermittent)         -40°C to 55°C           Operat	TECHNICAL CRECIFICATION	)NC
Technology       3 electrode electrochemical         Measurement Range       0.1 ppm SO₂ to 20 ppm SO₂         Maximum Overload       150 ppm SO₂         Filter       To remove H₂S         Filter Capacity       400 ppm hours @ 25 ppm H₂S         Sensitivity*       160 nA/ppm ±40 nA/ppm         T90 Response Time*       Typically < 30 seconds         T50 Response Time*       < 10 seconds @ 20°C         Baseline Offset* (in clean air)       < 0.2 ppm to 0.5 ppm equivalent         Zero Shift (20°C to 40°C)       < 0.2 ppm equivalent         Kepeatability*       < ±2% of signal         Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       Recommended Load Resistor         Bias Voltage       No bias         Mechanical       Weight         Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Typical Applications       Portable life safety         Operating Temperature Range (Continuous)       -40°C to 55°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operat		JN5
Technology       electrochemical         Measurement Range       0.1 ppm SO <sub>2</sub> to 20 ppm SO <sub>2</sub> Maximum Overload       150 ppm SO <sub>2</sub> Filter       To remove H <sub>2</sub> S         Filter Capacity       400 ppm hours @ 25 ppm H <sub>2</sub> S         Sensitivity*       160 nA/ppm ±40 nA/ppm         T90 Response Time*       Typically < 30 seconds         T50 Response Time*       < 10 seconds @ 20°C         Baseline Offset* (in clean air)       < 0.2 ppm to 0.5 ppm equivalent         Zero Shift (20°C to 40°C)       < 0.2 ppm equivalent         Repeatability*       < ±2% of signal         Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       Recommended Load Resistor         Bias Voltage       No bias         Mechanical       Weight         Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Portable life safety         Operating Temperature Range (Continuous)       -40°C to 55°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operating Pressure Range (May Conditions wil	Measurement	2 -1
Maximum Overload       150 ppm SO₂         Filter       To remove H₂S         Filter Capacity       400 ppm hours @ 25 ppm H₂S         Sensitivity*       160 nA/ppm ±40 nA/ppm         T90 Response Time*       Typically < 30 seconds         T50 Response Time*       < 10 seconds @ 20°C         Baseline Offset* (in clean air)       -0.2 ppm to 0.5 ppm equivalent         Zero Shift (20°C to 40°C)       < 0.2 ppm equivalent         Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       No bias         Mechanical       No bias         Mechanical       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime       < 10% signal loss per annum	Technology	
Filter Capacity       400 ppm hours @ 25 ppm H <sub>2</sub> S         Sensitivity*       160 nA/ppm ±40 nA/ppm         T90 Response Time*       Typically < 30 seconds         T50 Response Time*       -0.2 ppm to 0.5 ppm equivalent         Zero Shift (20°C to 40°C)       < 0.2 ppm equivalent         (20°C to 40°C)       < ±2% of signal         Linearity       Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       No bias         Recommended Load Resistor       No bias         Bias Voltage       No bias         Mechanical       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Typical Applications         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operating Pressure Range       50 mbar to 1200 mbar         Lifetime       < 10% signal loss per annum	Measurement Range	0.1 ppm SO <sub>2</sub> to 20 ppm SO <sub>2</sub>
Filter Capacity  400 ppm hours @ 25 ppm H <sub>2</sub> S  Sensitivity* 160 nA/ppm ±40 nA/ppm  T90 Response Time* 7 typically < 30 seconds 750 Response Time* < 10 seconds @ 20°C  Baseline Offset* (in clean air)  Zero Shift (20°C to 40°C)  Repeatability* < ±2% of signal  Linear over measurement range 0 ppm to 20 ppm and within ±5%  Electrical  Recommended Load Resistor  Bias Voltage No bias  Mechanical  Weight  < 5 g  Outer Plastic Body Mat'l  O-ring Material  Contact Material  Gold plated  Orientation Sensitivity  None  Environmental  Typical Applications  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Congate Material  Operating Pressure Range  Lifetime  Long Term Output Drift*  15% signal loss per annum	Maximum Overload	150 ppm SO <sub>2</sub>
Filter Lapacity	Filter	To remove H <sub>2</sub> S
T90 Response Time* T50 Response Time*  T50 Response Time*  -0.2 ppm to 0.5 ppm equivalent  Zero Shift (20°C to 40°C)  Repeatability*  Linearity  Linearity  Electrical  Recommended Load Resistor  Bias Voltage  No bias  Mechanical  Weight  -5 g  Outer Plastic Body Mat'l  Orientation Sensitivity  Environmental  Typical Applications  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  Operating Humidity Range  Departing Pressure Range  Linear over measurement range 0 ppm to 20 ppm and within ±5%  Electrical  Recommended Load Resistor  10 Ω  No bias  Mechanical  Veight  -5 g  Outer Plastic Body Mat'l  Orientation Sensitivity  None  Environmental  Typical Applications  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  -40°C to 55°C  15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Contact Material  Operating Pressure Range  Contact Material  Operating Temperature Range (Sou mbar to 1200 mbar  Lifetime  Long Term Output Drift*  -10% signal loss per annum	Filter Capacity	
T50 Response Time*  Baseline Offset* (in clean air)  Zero Shift (20°C to 40°C)  Repeatability*  Linearity  Linearity  Recommended Load Resistor  Bias Voltage  Mechanical  Weight  O-ring Material  Contact Material  Orientation Sensitivity  Environmental  Typical Applications  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  Poperating Humidity Range  Linear over measurement range 0 ppm to 20 ppm and within ±5%  Electrical  Recommended Load Resistor  10 Ω  Modified PPO  FKM75 ±5 shore A  Contact Material  Gold plated  Orientation Sensitivity  None  Environmental  Typical Applications  Portable life safety  -20°C to 50°C  -40°C to 55°C  -40°C to 55°C  Departing Temperature Range (Intermittent)  15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Lifetime  Long Term Output Drift*	Sensitivity*	160 nA/ppm ±40 nA/ppm
Baseline Offset* (in clean air)       -0.2 ppm to 0.5 ppm equivalent         Zero Shift (20°C to 40°C)       < 0.2 ppm equivalent         (20°C to 40°C)       < ±2% of signal         Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       10 Ω         Recommended Load Resistor       No bias         Bias Voltage       No bias         Mechanical       Mechanical         Weight       < 5 g         Outer Plastic Body Mat'l Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operating Humidity Range       15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime       < 10% signal loss per annum	T90 Response Time*	Typically < 30 seconds
(in clean air)       equivalent         Zero Shift (20°C to 40°C)       < 0.2 ppm equivalent         Repeatability*       < ±2% of signal         Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       10 Ω         Recommended Load Resistor       No bias         Bias Voltage       No bias         Mechanical       Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operating Humidity Range       15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime       < 10% signal loss per annum	T50 Response Time*	< 10 seconds @ 20°C
C20°C to 40°C   C2 ppm equivalent		
Linearity       Linear over measurement range 0 ppm to 20 ppm and within ±5%         Electrical       10 Ω         Recommended Load Resistor       10 Ω         Bias Voltage       No bias         Mechanical       Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operating Humidity Range       15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime       < 10% signal loss per annum		< 0.2 ppm equivalent
Linearity       range 0 ppm to 20 ppm and within ±5%         Electrical       Recommended Load Resistor         Bias Voltage       No bias         Mechanical       Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Typical Applications       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Tis rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime       Long Term Output Drift*       < 10% signal loss per annum	Repeatability*	< ±2% of signal
Recommended Load Resistor       10 Ω         Bias Voltage       No bias         Mechanical       Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         Operating Humidity Range       15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime       < 10% signal loss per annum	Linearity	range 0 ppm to 20 ppm
Resistor  Bias Voltage No bias  Mechanical  Weight  Veight  Oring Material  Contact Material  Orientation Sensitivity  Environmental  Typical Applications  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  Portable life safety  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Operating Pressure Range  Lifetime  Long Term Output Drift*  No bias  No bias  No bias  No bias  15 g  600 plated  FKM75 ±5 shore A  Contact Material  FKM75 ±5 shore A  FCONTO C  FOR TO SO C  -40°C to 50°C  -40°C to 55°C	Electrical	
Mechanical         Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         15% rH to 90% rH noncondensing. Extended exposure to extreme humidity conditions will degrade sensor performance         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime       < 10% signal loss per annum		10 Ω
Weight       < 5 g         Outer Plastic Body Mat'l       Modified PPO         O-ring Material       FKM75 ±5 shore A         Contact Material       Gold plated         Orientation Sensitivity       None         Environmental         Typical Applications       Portable life safety         Operating Temperature Range (Continuous)       -20°C to 50°C         Operating Temperature Range (Intermittent)       -40°C to 55°C         15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance         Operating Pressure Range       600 mbar to 1200 mbar         Lifetime         Long Term Output Drift*       < 10% signal loss per annum	Bias Voltage	No bias
Outer Plastic Body Mat'l Modified PPO O-ring Material FKM75 ±5 shore A Contact Material Gold plated Orientation Sensitivity None Environmental Typical Applications Portable life safety Operating Temperature Range (Continuous) Operating Temperature Range (Intermittent)  15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance Operating Pressure Range  Lifetime  Long Term Output Drift*    Modified PPO     Modified PPO     Modified PPO     Modified PPO     Modified PPO     FKM75 ±5 shore A     Cold plated     - 20°C to 50°C     - 40°C to 55°C     - 40°C to 55°C		INO DIAS
O-ring Material Contact Material Gold plated Orientation Sensitivity None Environmental Typical Applications Operating Temperature Range (Continuous) Operating Temperature Range (Intermittent)  Operating Humidity Range  Operating Humidity Range  Operating Pressure Range  Combination Condensing Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Lifetime  Long Term Output Drift*    Gold plated		INO DIAS
Contact Material Gold plated  Orientation Sensitivity None  Environmental  Typical Applications Portable life safety  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  Operating Humidity Range  Operating Humidity Range  Operating Pressure Range  Lifetime  Long Term Output Drift*  Sold plated  Operating Sensitivity  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Comparison Sensitivity  -20°C to 50°C  -40°C to 55°C  -40° C to 55°C  -40° C to 55° C  -40° C to 55° C  -40° C to 50° C  -40° C to 55° C  -40° C to 55° C  -40° C to 50° C  -40° C to 55° C  -40° C to 55° C  -40° C to 50° C	Mechanical	
Orientation Sensitivity  Environmental  Typical Applications Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Lifetime  Long Term Output Drift*  None  -20°C to 50°C  -40°C to 55°C  -40°C to 50°C  -40°C to 55°C	Mechanical Weight	< 5 g
Typical Applications  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  Operating Humidity Range  Operating Humidity Range  Operating Pressure Range  Lifetime  Portable life safety  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  600 mbar to 1200 mbar  Lifetime  Long Term Output Drift*	Mechanical Weight Outer Plastic Body Mat'l	< 5 g Modified PPO
Typical Applications  Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  Operating Humidity Range  Operating Humidity Range  Operating Pressure Range  Lifetime  Long Term Output Drift*  Portable life safety  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  600 mbar to 1200 mbar  -10% signal loss per annum	Mechanical Weight Outer Plastic Body Mat'l O-ring Material	< 5 g Modified PPO FKM75 ±5 shore A
Operating Temperature Range (Continuous)  Operating Temperature Range (Intermittent)  -40°C to 55°C  -50°C  -40°C to 55°C  15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Lifetime  Long Term Output Drift*  -20°C to 50°C  -40°C to 55°C  -50°C  -60°C to 50°C	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material	< 5 g Modified PPO FKM75 ±5 shore A Gold plated
Range (Continuous)  Operating Temperature Range (Intermittent)  Operating Humidity Range  Operating Pressure Range  Long Term Output Drift*  -40°C to 55°C  15% rH to 90% rH non-condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  600 mbar to 1200 mbar  -10% signal loss per annum	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity	< 5 g Modified PPO FKM75 ±5 shore A Gold plated
Pange (Intermittent)  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  Lifetime  Long Term Output Drift*  40°C to 55°C  40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  40°C to 55°C  10% signal loss per annum	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity Environmental	< 5 g Modified PPO FKM75 ±5 shore A Gold plated None
Operating Humidity Range  condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  Operating Pressure Range  600 mbar to 1200 mbar  Lifetime  Long Term Output Drift*  < 10% signal loss per annum	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity Environmental Typical Applications Operating Temperature	< 5 g  Modified PPO  FKM75 ±5 shore A  Gold plated  None  Portable life safety
Long Term Output Drift* < 10% signal loss per annum	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity Environmental Typical Applications Operating Temperature Range (Continuous) Operating Temperature	< 5 g  Modified PPO  FKM75 ±5 shore A  Gold plated  None  Portable life safety  -20°C to 50°C
Long Term Output Drift* < 10% signal loss per annum	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity Environmental Typical Applications Operating Temperature Range (Continuous) Operating Temperature Range (Intermittent)  Operating Humidity Range	< 5 g  Modified PPO  FKM75 ±5 shore A  Gold plated  None  Portable life safety  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor
Long Term Output Drift: annum	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity Environmental Typical Applications Operating Temperature Range (Continuous) Operating Temperature Range (Intermittent)  Operating Humidity Range	< 5 g  Modified PPO  FKM75 ±5 shore A  Gold plated  None  Portable life safety  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance
Expected Operating Life 5 years in clean air**	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity Environmental Typical Applications Operating Temperature Range (Continuous) Operating Temperature Range (Intermittent)  Operating Humidity Range Operating Pressure Range	< 5 g  Modified PPO  FKM75 ±5 shore A  Gold plated  None  Portable life safety  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance
	Mechanical Weight Outer Plastic Body Mat'l O-ring Material Contact Material Orientation Sensitivity Environmental Typical Applications Operating Temperature Range (Continuous) Operating Temperature Range (Intermittent)  Operating Humidity Range  Uperating Pressure Range Lifetime	< 5 g  Modified PPO  FKM75 ±5 shore A  Gold plated  None  Portable life safety  -20°C to 50°C  -40°C to 55°C  15% rH to 90% rH non- condensing. Extended exposure to extreme humidity conditions will degrade sensor performance  600 mbar to 1200 mbar  < 10% signal loss per

<sup>\*</sup>Specifications are valid at 20°C, 50% RH, and 1013 mBar, using manufacturer recommended circuitry. Performance characteristics outline the performance of sensors supplied within the first 3 months. Output signal can drift below the lower limit over time.

## **Product Dimensions**



## Pinout

Pin	Label	Description
1	S	Sensing electrode
2	R	Reference electrode
3	С	Counter electrode

<sup>\*\*</sup> Depends on environmental conditions

## Poisoning

Gas sensors are designed for operation in a wide range of environments and harsh conditions. However, it is important that exposure to high concentrations of solvent vapours is avoided during 1) storage, 2) fitting into instruments and 3) operation.

When using sensors with printed circuit boards (PCBs), degreasing agents should be used before the sensor is fitted.

Do not glue directly on or near the sensor as the solvent may cause crazing of the plastic.

## **SAFETY NOTE**

This sensor is designed to be used in safety-critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement the manufacturer reserves the right to make product changes without notice. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of the manufacturer we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application.