



**Features:**

- LCD readout
- 4 to 20 milliamp output
- pushbutton calibration
- green flashing 'confidence' LED
- integral sensor for cost sensitive applications
- intrinsically safe
- water and dust proof to IP66
- RFI protected

## Specification

<b>Size</b>	122 x 122 x 75mm nominal
<b>Weight</b>	0.65Kg
<b>Gas Types</b>	Oxygen / Toxic
<b>Operating Voltage</b>	7 to 30vdc (for 4 to 20 mA signal)
<b>Cable</b>	2 core (plus screen)
<b>Output Signal</b>	0mA - open circuit 2mA – fault. 4mA - zero gas 20mA - full scale gas 22mA - over-range
<b>Max. Cable Loop Resistance</b>	Signal - 560 ohms at 24vdc
<b>Sensor Type</b>	Electrochemical diffusion
<b>Detection Principle</b>	Electrochemical reaction
<b>Operating Temperature</b>	- 20 to +40 deg.C
<b>Humidity Range</b>	Oxygen - 0 to 99% RH non-condensing Toxic - 15 to 95% RH non-condensing
<b>Operating Pressure</b>	Ambient + or - 10%
<b>United Kingdom Hazardous Area Certification</b>	
<b>Standards</b>	EN50014, EN50020
<b>BASEEFA Certificate No's</b>	Ex97D2288, Code EEx ia IIC T4
<b>Zones</b>	0, 1 & 2

## Typical Sensor Characteristics

Gas	Stock Number	Maximum Range	Typical Range Setting	Expected Life (in Air)	Resolution	Response Time
O <sub>2</sub>	SS401	0 - 25% vol. *	0 - 21% vol. *	2 years	0.05% vol.	T95<15 sec
H <sub>2</sub> S	SS402	0 – 100ppm	0 - 50ppm	2 years	1ppm	T90<30 sec
CO	SS403	0 – 500ppm	0 - 500ppm	2 years	1ppm	T90<25 sec
CL <sub>2</sub>	SS404	0 – 50ppm	0 - 20ppm	2 years	0.1ppm	T90<30 sec
NO <sub>2</sub>	SS405	0 – 20ppm	0 - 20ppm	2 years	0.1ppm	T90<25 sec
NH <sub>3</sub>	SS406	0 – 1000ppm	0 - 100ppm	1-2 years	1ppm	T90<60 sec
O <sub>3</sub>	SS407	0 – 2ppm	0 - 2ppm	2 years	20ppb	T90<150 sec
V.O.C.	SS408	0-1000 ppm	Detects a range of volatile organic compounds			
SO <sub>2</sub>	SS409	0 – 20ppm	0 - 20ppm	2 years	0.1ppm	T90<35 sec
NO	SS410	0 – 250ppm	0 –100ppm	2 years	1ppm	T90<20 sec
H <sub>2</sub>	SS411	0 – 100% LEL	0 – 100% LEL	2 years	1% LEL	< 180 sec
PH <sub>3</sub>		0 – 1ppm	0 – 0.5ppm	18 months	1ppb **	T90<30 sec
HCN		0 – 50ppm	0 – 25ppm	2 years	0.1ppm	T90<200 sec
HCL		0 – 50ppm	0 - 20ppm	1 year	0.1ppm	T90<120 sec

\* The oxygen instrument is not designed for hazardous area use in oxygen-enriched atmospheres. Hazardous area applications must be in the range is 0-21%.

\*\* The resolution of the sensor itself is 15ppb.

**Typical MCU Control Unit Oxygen and Toxic Alarm Level Settings (Adjustable)**

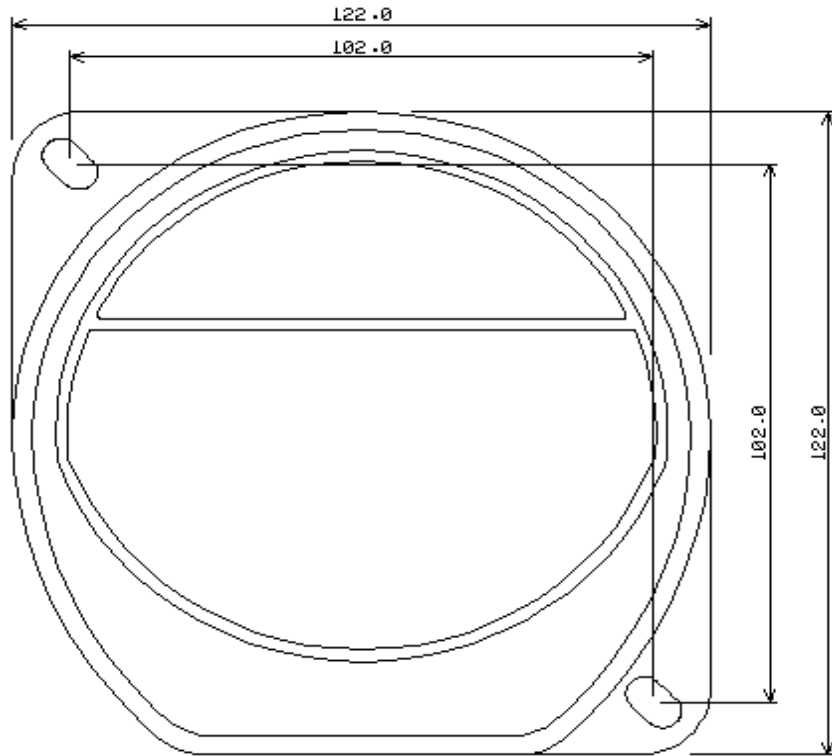
<b>Gas</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Max. Adjustable FSD</b>
O <sub>2</sub>	19% vol.	23% vol.	25% vol.	25% vol.
CO	50ppm	110ppm	200ppm	500ppm
CL <sub>2</sub>	1ppm	1.5ppm	2ppm	20ppm
NO <sub>2</sub>	10ppm	15ppm	20ppm	20ppm
SO <sub>2</sub>	3ppm	5ppm	8ppm	20ppm
HCL	1ppm	1.5ppm	2ppm	20ppm
O <sub>3</sub>	1ppm	1.5ppm	2ppm	2ppm
H <sub>2</sub> S	10ppm	15ppm	20ppm	50ppm
NH <sub>3</sub>	25ppm	35ppm	50ppm	30ppm
HCN	5ppm	10ppm	15ppm	25ppm
H <sub>2</sub>	20% LEL	40% LEL	60% LEL	0-100% LEL
NO	25ppm	35ppm	50ppm	100ppm
PH <sub>3</sub>	150ppb	200ppb	250ppb	500ppb

**Ordering Details** (add suffix '-US' for USA and '-CAN' for Canada)

<b>Stock No.</b>	<b>Description</b>
SS401	FGD3 Oxygen Detector Head
SS402	FGD3 Hydrogen Sulphide Detector Head
SS403	FGD3 Carbon Monoxide Detector Head
SS404	FGD3 Chlorine Detector Head
SS405	FGD3 Nitrogen Dioxide Detector Head
SS406	FGD3 Ammonia Detector Head
SS407	FGD3 Ozone Detector Head
SS408	FGD3 Volatile Organic Compounds Detector Head
SS409	FGD3 Sulphur Dioxide Detector Head
SS410	FGD3 Nitric Oxide Detector Head
SS411	FGD3 Hydrogen Detector Head
SS412	FGD3 Carbon Dioxide Detector Head
	FGD3 Phosphine / Arsine Detector Head
	FGD3 Hydrogen Cyanide Detector Head
	FGD3 Hydrogen Chloride Detector Head

**Note – Standard gland entry is 20mm x 1.5mm pitch thread.  
For USA and Canada, gland entry is ½” NPT thread.**

## Mounting Details



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