

STATUS SCIENTIFIC CONTROLS

PROGRAMMABLE

FIXED SYSTEM FOR GAS AND SAFETY MONITORING AND CONTROL 



FGD3 OXYGEN/TOXIC GAS DETECTOR HEAD

Technical Data Sheet



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

Size	122 x 122 x 75mm nominal
Weight	0.65Kg
Gas Types	Oxygen / Toxic
Operating Voltage	7 to 30vdc (for 4 to 20 mA signal)
Cable	2 core (plus screen)
Output Signal	0mA - open circuit 2mA - fault 4mA - zero gas 20mA - full scale gas 22mA - over-range
Max. Cable Loop Resistance	Signal - 560 ohms at 24vdc
Sensor Type	Electrochemical diffusion
Detection Principle	Electrochemical reaction
Operating Temperature	- 20 to +40 deg.C
Humidity Range	Oxygen - 0 to 99% RH non-condensing Toxic - 15 to 95% RH non-condensing


Specification

Operating Pressure Ambient + or - 10%

European Hazardous Area Certification

Standards EN50014:1997 + Amds 1 & 2
EN50020:1994

ATEX Certificate No. BAS 01ATEX2300

Certification Coding  II 2 G EEx ia IIC T4 (-20 °C<Ta<+60°C)

Zones 0, 1 & 2

Typical Sensor Characteristics

Gas	Stock Number	Maximum Range	Typical Range Setting	Expected Life (in Air)	Resolution	Response Time
O ₂	SS401	0 - 25% vol. *	0 - 21% vol. *	2 years	0.05% vol.	T95<15 sec
H ₂ 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 ₂	SS404	0 – 50ppm	0 - 20ppm	2 years	0.1ppm	T90<30 sec
NO ₂	SS405	0 – 20ppm	0 - 20ppm	2 years	0.1ppm	T90<25 sec
NH ₃	SS406	0 – 100ppm	0 - 50ppm	1 year	1ppm	T90<60 sec
O ₃	SS407	0 – 2ppm	0 - 2ppm	2 years	20ppb	T90<150 sec
V.O.C.	SS408	Detects a range of volatile organic compounds				
SO ₂	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 ₂	SS411	0 – 100% LEL	0 – 100% LEL	2 years	1% LEL	< 180 sec
HCL	SS414	0 – 50ppm	0 - 20ppm	1 year	0.1ppm	T90<120 sec
HCN	SS419	0 – 50ppm	0 – 25ppm	2 years	0.1ppm	T90<200 sec
PH3		0 – 1ppm	0 – 0.5ppm	18 months	1ppb **	T90<30 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)

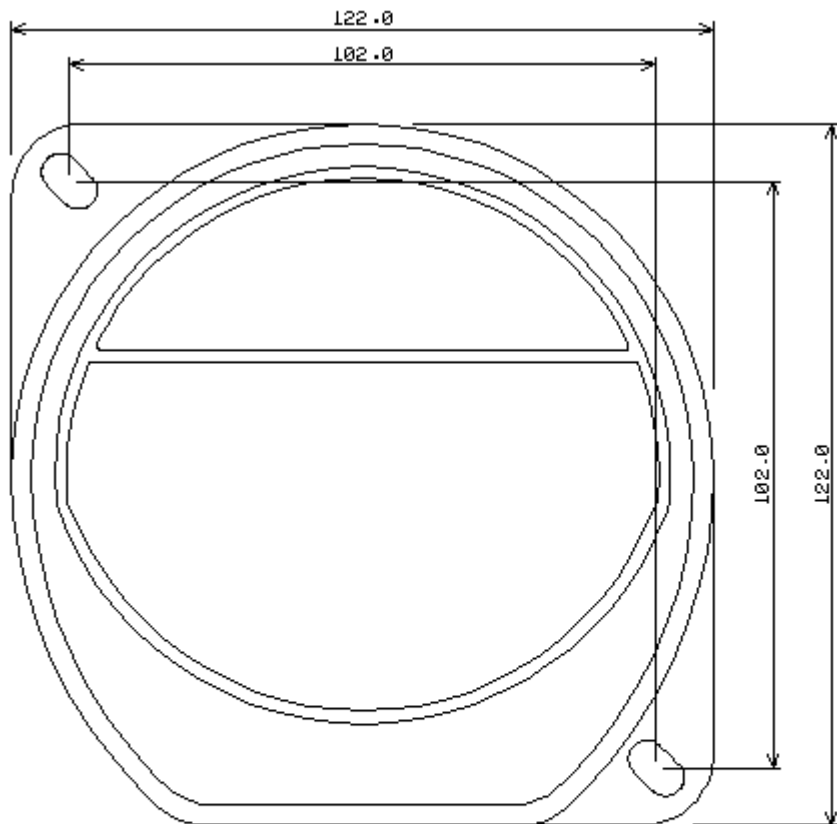
Gas	Level 1	Level 2	Level 3	Max. Adjustable FSD
O ₂	19% vol.	23% vol.	25% vol.	25% vol.
CO	50ppm	110ppm	200ppm	500ppm
CL ₂	1ppm	1.5ppm	2ppm	20ppm
NO ₂	10ppm	15ppm	20ppm	20ppm
SO ₂	3ppm	5ppm	8ppm	20ppm
HCL	1ppm	1.5ppm	2ppm	20ppm
O ₃	1ppm	1.5ppm	2ppm	2ppm
H ₂ S	10ppm	15ppm	20ppm	50ppm
NH ₃	25ppm	35ppm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

Ordering Details (add suffix '-US' for USA)

Stock No.	Description
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
SS414	FGD3 Hydrogen Chloride Detector Head
SS418	FGD3 Ethylene Oxide Detector Head
SS419	FGD3 Hydrogen Cyanide Detector Head
TBA	FGD3 Phosphine / Arsine 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



Designed and Manufactured in the UK

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