

# 3000 SI series

datasheet

## Toxic gas/oxygen sensor transmitters



### Description

The Analox 3000 SI series 4-20mA loop powered, 2 wire, sensor transmitters are certified intrinsically safe, with a shunt diode barrier, to Ga Ex ia IIC T4. These accurate, reliable and well proven transmitters are available to detect a wide range of gases (see list for gases and ranges). If you do not see the gas or range you require please contact our team.

The sensor is a unique modular design with waterproof IP65 main body in 316 stainless steel and with all electronics encapsulated. The sensor is able to withstand the most rigorous environments both onshore and offshore.

### Benefits and features

- Durable:**  
Sensor body manufactured from 316 stainless steel
- Safe:**  
Certified to Ga Ex ia IIC T4 (before March 2008 EEx ia IIC T4) for use in Zone 0 Areas
- Simple to install:**  
Needs only 2 core screened cable
- Versatile:**  
4-20 mA loop transmitter connects to a variety of control systems
- Easy sensor change:**  
Replacement cells are 'drop in' and need no special tools

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## Installation

The 3000 SI range is designed to be wall mounted or free standing. Mounting orientation does not affect the operation of the sensor, although it is important that liquids cannot collect in the gas entry port.

The sensor is supplied with 2 meters of twin screened cable which may be used to connect to a suitable junction box.

Please refer to section 3 of the 3000 SI technical manual for more information on the installation process.

## Sensor cell replacement

Is as easy as changing a torch battery. The sensor should only require changing every two years and as 'drop in' components, no special tools are required.

## Calibration

All 3000 SI sensor/transmitters are calibrated before leaving the factory.

Sensors used in safety applications should be checked after installation and fully calibrated every 6 months.

Consult section 4 of the 3000 SI technical manual for further information on the calibration procedure.

## Specifications:

**Power:**

13 to 36V at the transmitter

**Signal:**

4-20mA loop

**Operating life in air at NTP:**

Oxygen 1 to 1.5 years

HCN, NH<sub>3</sub>, HF 1 year

All other variants 2 to 3 years

**Intrinsically safe:**

GA Ex ia IIC T4  II1G

**Operating pressure:**

Atmospheric +/- 10%

**Operating temperature:**

Generally -20 to +40 °C

*(except for)*

HF : -20 to +35 °C

NH<sub>3</sub>: -20 to +30 °C

**Mechanical data:**

Height 125mm (to top of gland)

Diameter 42 mm

**Warranty:**

Toxic cells - 12 months\*

Oxygen cells - 6 months

\*(except HCN, NH<sub>3</sub> and HF - 6 months)

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Gas	Symbol	Model	Ranges
Carbon monoxide	CO	3000 SI	0 to 100 ppm 0 to 200 ppm 0 to 300 ppm 0 to 500 ppm 0 to 1000 ppm
Hydrogen sulphide	H <sub>2</sub> S	3001 SI	0 to 50 ppm 0 to 100 ppm 0 to 500 ppm
Sulphur dioxide	SO <sub>2</sub>	3002 SI	0 to 20 ppm 0 to 100 ppm
Hydrogen	H <sub>2</sub>	3003 SI	0 to 1000 ppm 0 to 2000 ppm
Nitrogen dioxide	NO <sub>2</sub>	3004 SI	0 to 10 ppm 0 to 100 ppm
Nitric oxide	NO	3005 SI	0 to 100 ppm 0 to 1000 ppm
Chlorine	Cl <sub>2</sub>	3006 SI	0 to 10 ppm 0 to 100 ppm
Hydrogen cyanide	HCN	3007 SI	0 to 10 ppm 0 to 50 ppm 0 to 100 ppm
Ammonia	NH <sub>3</sub>	3008 SI	0 to 50 ppm 0 to 100 ppm 0 to 200 ppm
Ozone	O <sub>3</sub>	3009 SI	0 to 2 ppm 0 to 5 ppm
Hydrogen chloride	HCl	3010 SI	0 to 10 ppm
Chlorine dioxide	ClO <sub>2</sub>	3011 SI	0 to 10 ppm
Oxygen	O <sub>2</sub>	3012 SI	0 to 25%
Fluorine	F <sub>2</sub>	3013 SI	0 to 10 ppm
Phosphine	PH <sub>3</sub>	3014 SI	0 to 10 ppm
Bromine	Br <sub>2</sub>	3015 SI	0 to 10 ppm
Hydrogen fluoride	HF	3016 SI	0 to 10 ppm
Ethylene oxide	C <sub>2</sub> H <sub>4</sub> O	3017 SI	0 to 20 ppm

\* All ranges and interferences shown in P.P.M (parts per million). \* Resolution of the unit is indicated by the first digit of the range chosen.

\* 4-20mA output would normally correspond to the ranges shown above. The maximum ranges can be available upon request at an extra charge  
Analox has a policy of continuous improvement and we reserve the right to upgrade or change specifications without prior notice.



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.