

5S3

CO₂ Infrared Transducer



KEY FEATURES

Low power consumption

Variety of ranges

Analogue output

Long life expectancy

Digital outputs

Temperature compensated

This highly precise, stable and accurate dual channel infrared carbon dioxide sensor supplied in an aluminium housing includes an onboard, barometric pressure sensor compensating for the effect of atmospheric pressure. It is available in a variety of ranges from 0-5000 ppm to 0-100% and can provide either a 0 to 2v or 4-20mA output. The housing is supplied complete with a flow adapter to allow sample gas to be passed over the IR bench; a green status LED is fitted as standard. The 5S3 is an advanced, solid-state, infrared transducer utilising high quality optical components to ensure that measurements are specific to carbon dioxide, with virtually no sensitivity to other gases. Temperature compensation is achieved using unique smart detector technology, further enhanced by the addition of a temperature sensor mounted within the infrared bench, minimising measurable temperature effects in the operating range.

Our 5S3 is utilised as a robust and accurate industrial process gas sensor or as a part of a safety system in applications including laboratory research, commercial diving, agriculture and the beverage industry.

The 5S3 carbon dioxide sensor is used within some Analox products including our SDA carbon dioxide monitor but also as an OEM solution, utilised by other analyser manufacturers and as an ambient CO₂ sensor connecting to a control panel.

INDUSTRIES



Manufactured
in Great Britain

PROVIDING NICHE CUSTOM
GAS DETECTION SINCE 1981

ANALOX
Sensor Technology

SPECIFICATIONS

RANGE:	RESOLUTION:
0 to 5000 ppm	2 ppm
0 to 10000 ppm	5 ppm
0 to 1%	0.0005%
0 to 2%	0.001%
0 to 5%	0.002%
0 to 10%	0.005%
0 to 20%	0.01%
0 to 100%	0.05%

Warm up time: 30 seconds

Response time: T90 in <30 seconds

Detection technique: Infrared absorption

Storage temperature: -20 to +70°C

Humidity: 0 to 99% non condensing

Flow range: 0.1 to 2 litres/minute

Operating temperature: -5 to +55°C

Pressure range: 800 to 1500 mbarA

Power supply: 9 to 36 V DC (regulated 5V option also available)

EMC emissions: to EN50270 2006, Type 1

EMC susceptibility: to EN50270 2006, Type 2. Max deviation under 10V/m testing is 150 ppm

Output: either 0-2V DC into load of >1000 Ohms or 4-20mA into load of ≤400 Ohms (specify at time of order)

Warm up fault conditions: either >2V DC (0-2V DC option) or >20mA (4-20mA option)

Enclosure: die cast aluminium

Dimensions: 115 x 70 x 40 (WxHxD), including flow adaptor

Sensors are provided optimised for either helium or nitrogen balance gases and must be used as such to achieve specified performance.

Accuracy varies depending on the configuration of the optical bench, but is always better than $\pm(1\%$ of the sensor's full scale plus 2% of the sensor reading plus 0.1% of the sensor's full scale per degree C of temperature shift from calibration temperature)

Analox has a policy of continuous improvement and we reserve the right to upgrade or change specifications without prior notice.

Full technical specifications are available upon request and can be found in the User Manual.

If you require a datasheet in another language please contact us.

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