

5S MkIII

CO₂ Infrared Transducer

by **ANALOX**



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 5S MkIII** is an advanced, solid-state, infrared transducer utilizing high quality optical components to ensure that measurements are specific to carbon dioxide, with virtually no sensitivity to other gasses. Temperature compensation is achieved using unique smart detector technology, further enhanced by the addition of a temperature sensor mounted within the infrared bench, minimizing measurable temperature effects in the operating range.

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

Features

- Low power consumption
- Variety of ranges
- Analogue output
- Long life expectancy
- Digital outputs
- Temperature compensated sensors with Pressure Sync technology

Gas Detected

Carbon Dioxide (CO₂)

Industries

- Research Laboratory
- Medical Laboratory
- Beverage & Hospitality
- Commercial Diving
- Breathing Air
- HBOT
- OEM
- Agriculture
- Refrigeration

Want to talk about your
application requirements?
Give us a call!

Your Challenge, **Our Passion**

Speak to **UK/Global:** +44 (0)1642 711 400
our team **US Office:** (714) 891 4478
today **US Toll Free:** (877) 723 3247

5S MkIII

Tech Spec

Warm up time	30 seconds
Response time	T90 in <30 seconds
Detection technique	Infrared absorption
Storage temperature	-20 to +70°C -4 to +158°F
Humidity	0 to 99% non condensing
Flow range	0.1 to 2 liters/minute
Operating temperature	-5 to +55°C +23 to +131°F
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 (WxHxD)	115 x 70 x 40 mm (including flow adaptor) 4.5 x 2.5 x 1.6 inches (including flow adaptor)

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%

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).

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