

# Product Data Sheet

P/N : GS+5SO2

**GS+5SO2**  
Sulphur Dioxide Sensor (SO2)

**Introduction** The GS+5SO2 is a premium high quality robust SO2 sensor, ideal for use in portable emissions gas detectors.

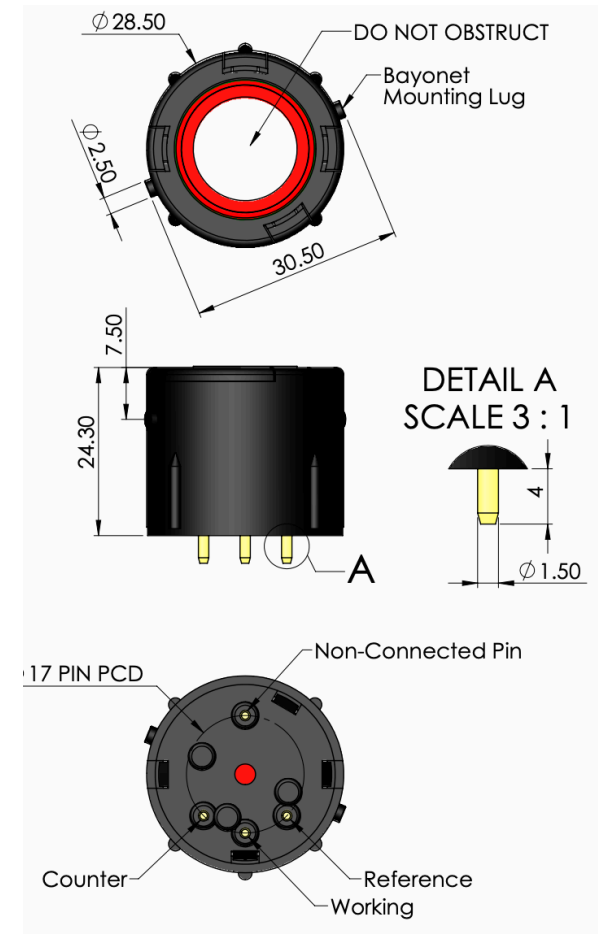
**Key Features:** High stability, fast response and recovery, robust environmental performance.

Net Sensor Performance Characteristics	
Output signal	100 ± 20 nA / ppm
Typical Baseline Range (pure air)	± 2 ppm SO2 equivalent
Filter	None
T90 Response Time	< 30 seconds
Measurement Range	0 - 2,000 ppm
Maximum Overload	5,000 ppm
Linearity	Linear up to 5,000 ppm
Repeatability	< ±2% SO2 equivalent
Baseline Shift (20°C to 40°C)	± 2 ppm SO2 Equivalent
Recommended Load Resistor	10 ohms
Resolution (Electronics dependent)	< 1 ppm typical

Environmental Details	
Temperature Range Continuous	-20°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH

**Important Note:**  
All performance data is based on conditions at 20°C, 50%RH and 1 atm, using DD Scientific recommended circuitry.

Sensor performance is temperature dependent, and please contact DD Scientific for temperature performance other than 20°C.



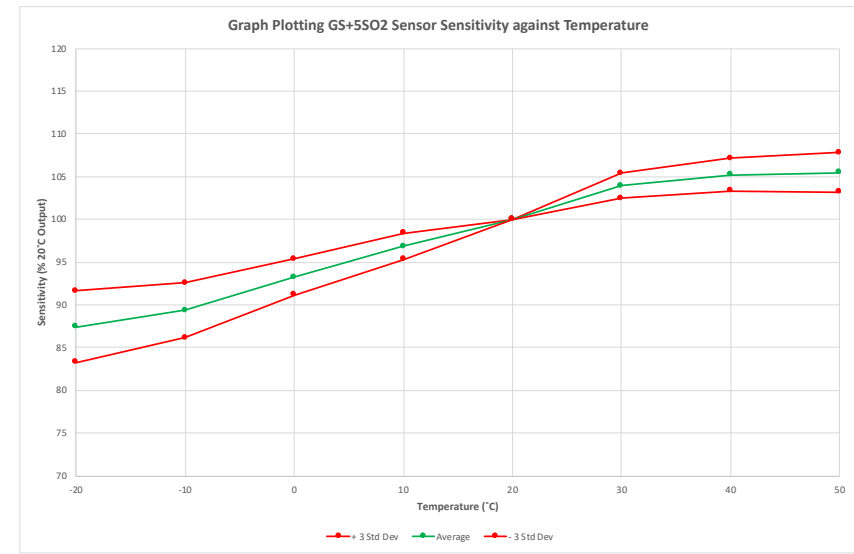
**Product Dimensions**  
All dimensions in mm  
All tolerances  $\pm 0.15$  mm

### Lifetime Details

Long Term Output Drift	< 2% per month
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air
Standard Warranty	24 months from date of dispatch

### Cross - Sensitivity Data

GAS	CONC.	GS+5SO2
Hydrogen Sulphide	25 ppm	30 ppm SO2
Nitrogen Dioxide	20 ppm	-25 ppm SO2
Carbon Monoxide	1,000 ppm	< 5 ppm SO2
Nitric Oxide	50 ppm	< 1 ppm SO2
Ammonia	50 ppm	0 ppm SO2
Chlorine	20 ppm	< -10 ppm SO2



#### Poisoning:

DD Scientific sensors are designed to operate in a wide range of harsh environments and conditions. However, it is important that exposure to high concentrations of solvent vapors is avoided, both during storage, fitting into instrument and operation. When using sensors on printed circuit boards (PCB's), degreasing agents should be used prior to the sensor being fitted.

Please note gluing or soldering direct to the pins of DD Scientific Ltd gas sensors will void warranty, please use PCB sockets when

### Intrinsic Safety Data

Maximum at 2000 ppm	0.3 mA
Maximum o/c Voltage	1.3 V
Maximum s/c Current	<1.0 A

**WARNING:** By the nature of the technology used, any electrochemical gas sensor offered by DD Scientific can potentially fail to meet specification without warning. Although DD Scientific Ltd makes every effort to ensure the reliability of our products of this type, where life safety is a performance requirement of the product, we recommend that all sensors and instruments using these sensors are checked for response to gas before use.

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