



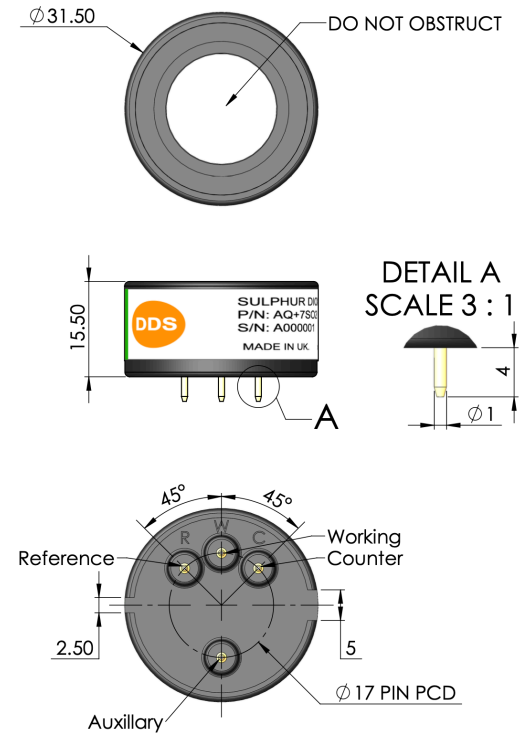
**Introduction** The AQ+7SO2 is a 4 Electrode SO<sub>2</sub> sensor designed for use in environmental air quality applications

**Key Features:** 4th electrode for improved baseline v temperature performance  
Internal filter for the removal of H<sub>2</sub>S and O<sub>3</sub>

Net Sensor Performance Characteristics	
Output signal	400 ± 100 nA / ppm
Typical Baseline Range (pure air)	+/- 100 nA (Net S-A Baseline)
T90 Response Time	< 60 seconds
Measurement Range	0 - 20 ppm
Maximum Overload	200 ppm
Linearity	Linear
Repeatability	< ±2% SO <sub>2</sub> equivalent
Recommended Load Resistor	20 ohms
Resolution (Electronics dependent)	< 10 ppb typical

Environmental Details	
Temperature Range Continuous	-30°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.



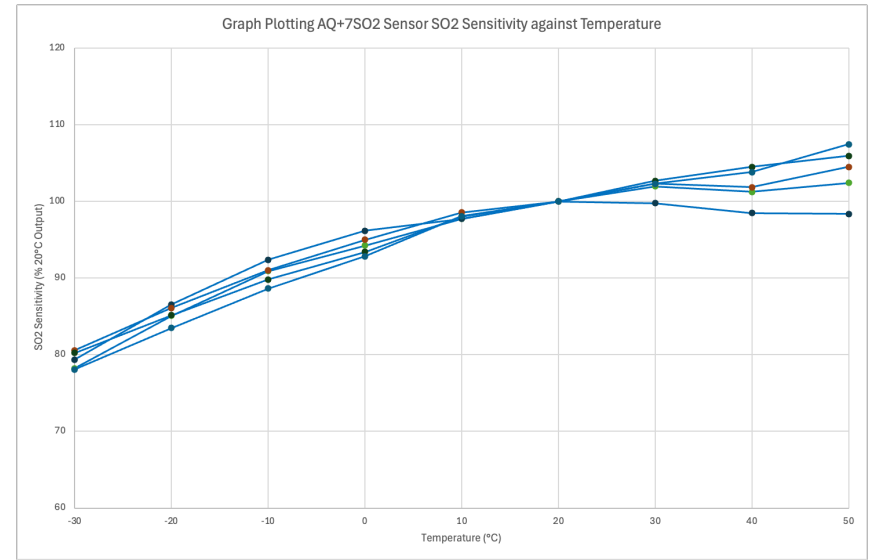
**Product Dimensions**  
All dimensions in mm  
All tolerances ±0.15 mm

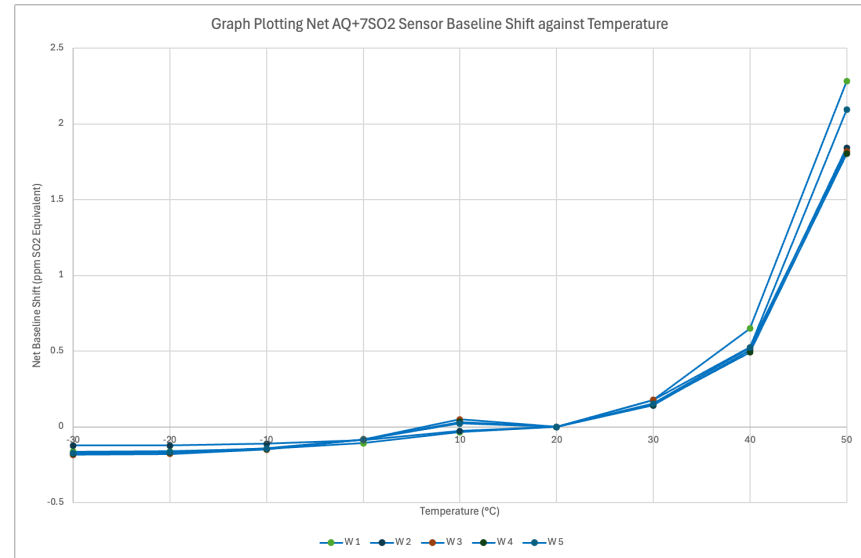
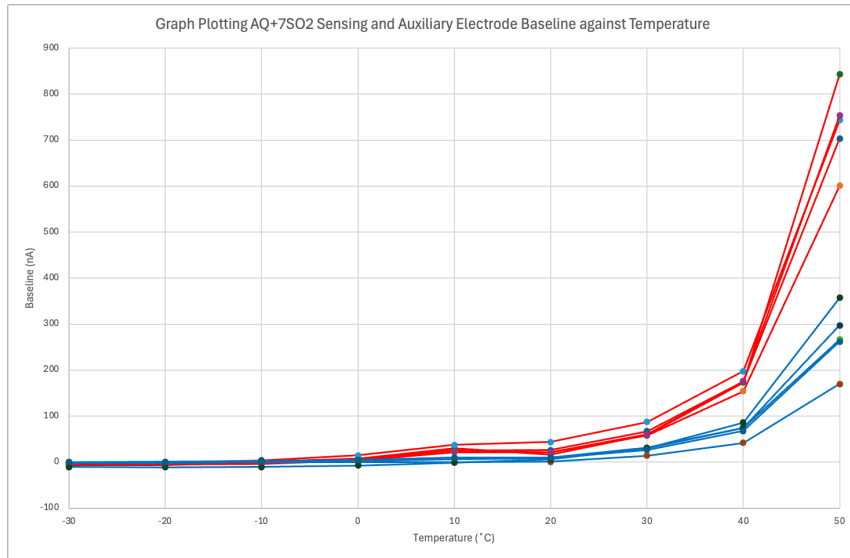




Lifetime Details	
Long Term Output Drift	< 5% per month
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air
Standard Warranty	24 months from date of dispatch

Cross - Sensitivity Data (Net Sensor Performance)		
GAS	Concentration (ppm)	AQ+7SO2 Output Equivalent
Hydrogen Sulphide	2.5 ppm	< 25 ppb
Carbon Monoxide	1 ppm	< 20 ppb
Nitrogen Dioxide	1 ppm	< -1.2 ppm
Nitric Oxide	0.5 ppm	< 40 ppb
Ozone	1 ppm	< -200 ppb
Hydrogen	20 ppm	< 50ppb





**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 connecting DD Scientific sensors.

**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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