

Introduction The MceL SO2 is a premium miniature high quality robust SO₂ sensor, ideal for use in portable detectors

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

Performance Characteristics	
Output signal	200±50nA/ppm
Typical Baseline Range (pure air)	±0.5 ppm SO ₂ equivalent
Filter Capacity	1000ppm hours @ 25ppmH ₂ S
T90 Response Time	< 30 seconds
Measurement Range	0 - 50 ppm
Maximum Overload	200 ppm
Linearity	Linear ±5%
Repeatability	< ±2% SO ₂ equivalent
Recommended Load Resistor	10 ohms
Resolution (Electronics dependent)	0.5 ppm 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	< 10% per annum
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.	ppmSO2
Hydrogen Sulfide	25 ppm	<0.5 ppm
Carbon Monoxide	200 ppm	<2 ppm
Hydrogen	100 ppm	<0.1 ppm
Nitric Oxide	30 ppm	<20.1 ppm
Ammonia	50 ppm	0 ppm
Nitrogen Dioxide	20 ppm	<-30 ppm

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 150 ppm	0.1 mA
Maximum o/c Voltage	0.75 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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