

# Product Data Sheet

P/N : GS+4DT

# GS+4DT

CO & H<sub>2</sub>S dual toxic Sensor

**Introduction** The GS+4DT is the industry leading dual toxic sensor, suitable for multi gas portable gas detectors.

**Key Features:** High stability, fast response and recovery, very low H<sub>2</sub>S cross sensitivity on CO electrode

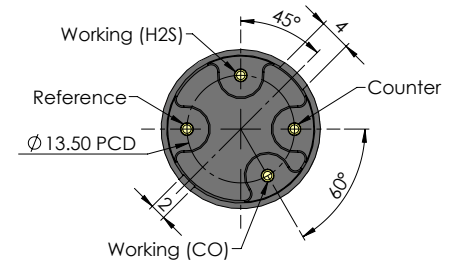
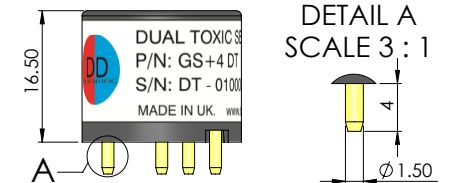
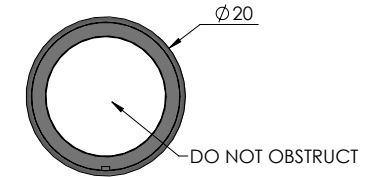
Performance Characteristics	CO Channel	H <sub>2</sub> S Channel
Output signal	60 to 120 nA/ppm	500 to 1100 nA/ppm
Typical Baseline Range (pure air)	±2 ppm CO equivalent	± 0.5 ppm H <sub>2</sub> S equivalent
Filter Capacity	> 20000 ppm hours	-
T90 Response Time	< 35 seconds	< 35 seconds
Measurement Range	0 - 1000 ppm	0 - 100 ppm
Maximum Overload	2000 ppm	200 ppm
Linearity (Measurement Range)	Linear ± 2%	Linear ± 2%
Repeatability	< ±3% CO equivalent	< ±2% H <sub>2</sub> S equivalent
Recommended Load Resistor	10 ohms	10 ohms
Resolution (Electronics dependent)	±1 ppm CO typical	±0.5 ppm H <sub>2</sub> S 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.



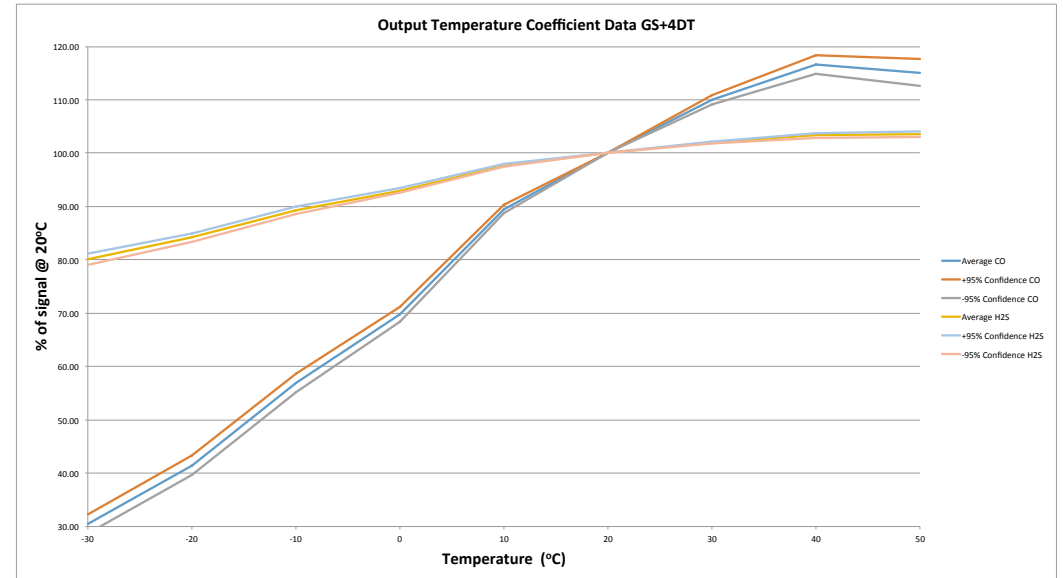
**Product Dimensions**  
All dimensions in mm  
All tolerances ±0.15 mm

### 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.	CO Channel	H <sub>2</sub> S Channel
Hydrogen Sulphide	25 ppm	< 5 ppm	25 ppm
Sulphur dioxide	5 ppm	0 ppm	< 1 ppm
Hydrogen	100 ppm	< 15 ppm	< 0.05 ppm
Nitric Oxide	35 ppm	< 0.1ppm	< 1 ppm
Carbon Monoxide	300 ppm	300 ppm	< 5 ppm
Nitrogen Dioxide	5 ppm	< 0.1 ppm	0 ppm
Chlorine	15 ppm	0 ppm	0 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 vapours 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.

Intrinsic Safety Data	CO	H <sub>2</sub> S
Maximum at 2000 ppm	<0.5 mA	
Maximum at 400 ppm		<0.5 mA
Maximum o/c Voltage	1.3 V	1.3 V
Maximum s/c Current	<1.0 A	<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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