

S+7NH3

Ammonia Oxide Sensor

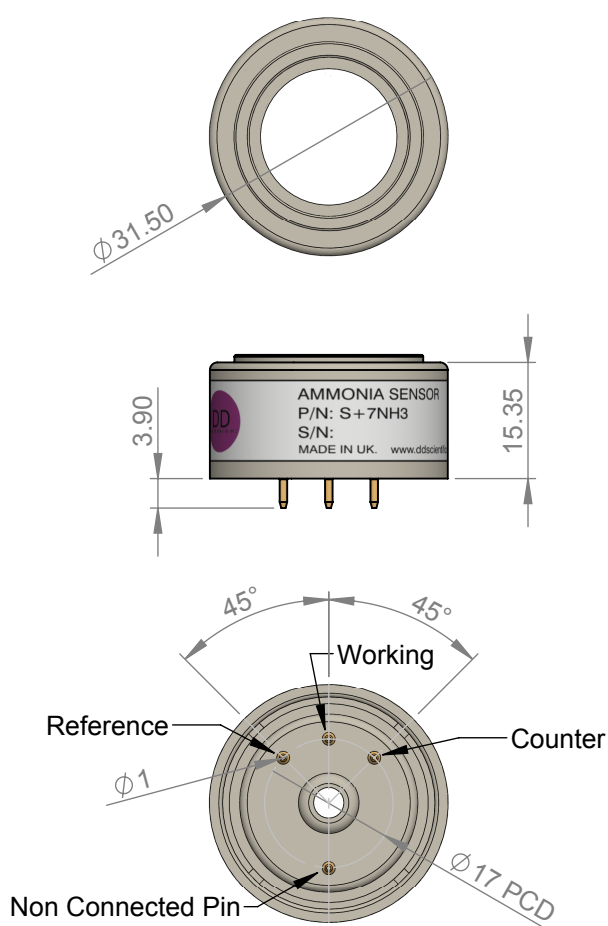
Ideal application:
fixed gas detectors
refrigeration monitoring

Key Features:

- ★Robust compact sensor design
- ★Proven Reliability
- ★High stability

Product Dimensions

All dimensions in mm
All tolerances ± 0.15 mm



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.

Performance Characteristics

Output signal	120 \pm 50 nA / ppm
Typical Baseline Range (pure air)	$< \pm 8$ ppm NH3 equivalent
T90 Response Time	< 90 seconds
Measurement Range	0 - 100 ppm
Maximum Overload	500 ppm
Linearity	Within ± 2 %
Repeatability	$< \pm 10\%$ NH3 equivalent
Recommended Load Resistor	10 ohms
Resolution (Electronics dependent)	< 0.2 ppm typical
Bias Voltage	+300 mV

Environmental

Temperature Range Continuous	-30°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH

Lifetime

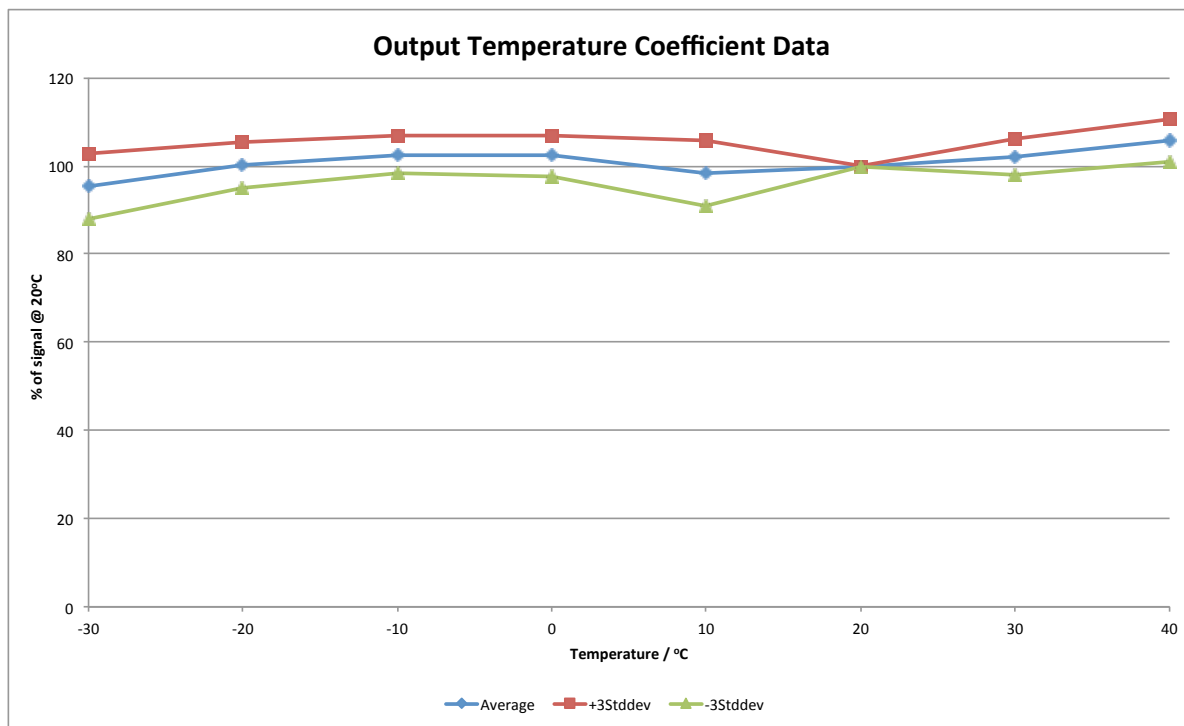
Long Term Output Drift	< 5% per annum
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air
Standard Warranty	12 months from date of dispatch

Intrinsic Safety Data

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

Cross -Sensitivity Data		
GAS	CONC.	S+7NH3
Carbon Monoxide	300 ppm	<9 ppm
Sulphur dioxide	5 ppm	<1 ppm
Nitric Oxide	35 ppm	<7 ppm
Hydrogen	100 ppm	<5 ppm
Hydrogen Sulphide	15 ppm	<30 ppm

Important Note: The values above are typical values and should not be used as a basis for cross calibration. Cross sensitivities may not be linear and should not be scaled either. Above data based on gassing for 5 minutes using DD Scientific test equipment. Should be noted some cross interference break through will occur if gas is applied for a longer period of time.



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.

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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