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# SGX-7NH3-100 Datasheet

## Industrial Ammonia (NH<sub>3</sub>) Sensor

#### **PERFORMANCE**

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Output signal	115 ± 45 nA / ppm	
Typical Baseline Range (pure air)	±1ppm NH₃ equivalent	
T90 Response Time	< 90 seconds	
Measurement Range	0 - 100 ppm	
Maximum Overload	200 ppm	
Linearity	Linear	
Repeatability	±10%	
Recommended Load Resistor	10 ohms	
Resolution (Electronics dependent)	1 ppm	

### **OPERATING CONDITIONS**

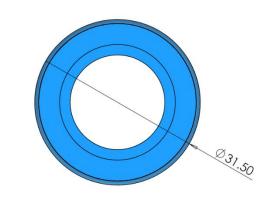
Temperature Range	-40°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH

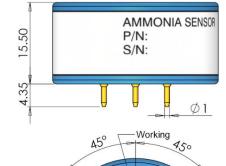
### LIFETIME

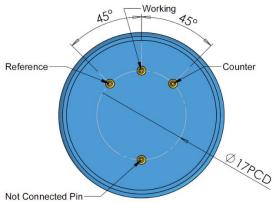
Long Term Output Drift	< 20% per annum	
Recommended Storage Temp	0°C to 20°C	
<b>Expected Operating Life</b>	> 24 months in air	

#### **OUTLINE**

All dimensions are in mm All tolerances are ±0.15mm







### **INTRINSIC SAFETY DATA**

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

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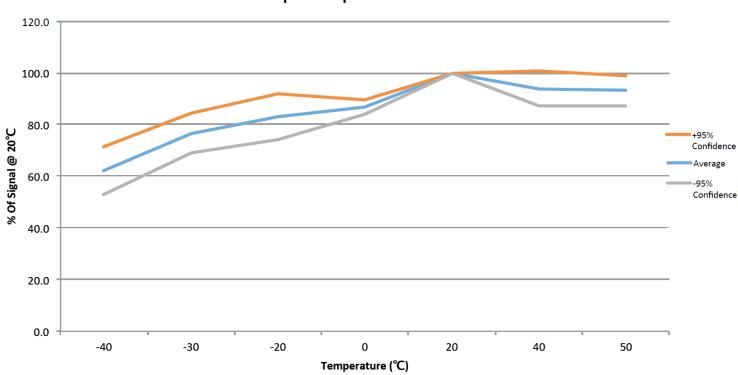
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## **CROSS - SENSITIVITY DATA**

GAS	CONCENTRATION	SGX-7NH3-100
Carbon Monoxide	500ppm	0 ppm
Hydrogen Sulphide	15ppm	<30 ppm
Sulphur Dioxide	20ppm	-6 ppm
Nitric Oxide	35ppm	0 ppm
Nitrogen Dioxide	20ppm	-25 ppm
Hydrogen	100ppm	0 ppm

<sup>\*</sup> See Important Notes

# Output Temp. Coefficient data





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#### **IMPORTANT NOTES**

- 1) Do not glue or solder to the connector pins as this may damage the sensor and thereby invalidate the warranty, please use PSB sockets.
- 2) Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.
- 3) All performance specifications are based upon the following environmental conditions: 20°C, 50% relative humidity, 101kPa.
- 4) Cross Sensitivity Data is for information only. Calibration is recommended with target gas as the accuracy of calibration and measurement cannot be ensured.
- 5) The cross sensitivities are including but not limited to the gases stated in the table. It may respond to other gases.
- 6) The cross sensitivities may fluctuate between ± 30% and may differ from batch to batch or across sensor's life time.
- 7) The device is designed to be RoHS compliant.
- 8) Poisoning 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.
- 9) 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 SGX Europe Sp. z o.o. can potentially fail to meet specification without warning. SGX Europe Sp. z o.o. 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. SGX Europe Sp. z o.o reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a program of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of SGX Europe Sp. z o.o., we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application. Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over.