

SPECIFICATION SHEET for AMMONIA SENSOR with FAST RESPONSE TYPE NH3/CR-10000

PERFORMANCE CHARACTERISTICS

Nominal Range	0 – 10'000 ppm
Maximum Overload	15'000 ppm
Expected Operation Life	2 years in air
Output Signal	2.5 ± 0.5 nA/ppm
Resolution	50 ppm
Temperature Range	- 10 °C to 40 °C
Pressure Range	Atmospheric ¹⁾
Pressure Coefficient	No data
T ₉₀ Response Time	< 50 sec
Relative Humidity Range	15 % to 90 % R.H. non-condensing
Baseline	-200 ppm to 200 ppm
Maximum Zero Shift (+20°C to +40°C)	± 400 ppm
Typical Long Term Output Drift	< 5% per 6 months
Recommended Load Resistor	10 Ohm
Bias Voltage	Not allowed
Repeatability	< 3 % of signal
Output Linearity	< 5 % full scale
Humidity Effect ²⁾	< 180 ppm

¹⁾ no data for deviations

²⁾ abrupt changes in rel. humidity causes a short term transient signal

CROSS-SENSITIVITY DATA

Interfering Gas	Concentration	Reading
CO	1000 ppm	0 ppm
H ₂	1000 ppm	0 ppm
SO ₂ ³⁾	100 ppm	-35 ppm
H ₂ S ³⁾	100 ppm	35 ppm
NO ³⁾	200 ppm	-10 ppm
NO ₂ ³⁾	100 ppm	-100 ppm
Cl ₂	20 ppm	-55 ppm
CO ₂	2 %	0 ppm

³⁾ Long term exposures and high concentrations may affect the performance characteristics

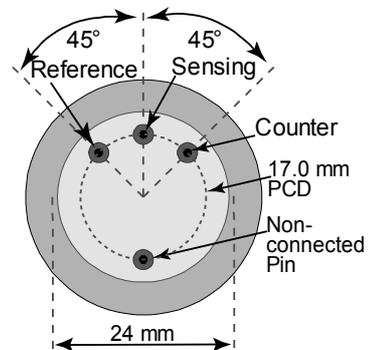
Performance data conditions:
20 °C, 50% RH and 1013 mbar

PHYSICAL CHARACTERISTICS

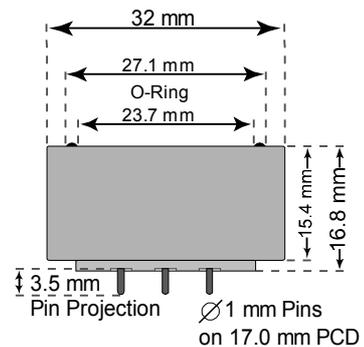
Weight	~ 13 g
Position Sensitivity	None
Storage Life	Six months in container
Recommended Storage Temperature	5 °C – 20 °C
Warranty Period	12 months from date of dispatch

Compact-Size Outline Dimensions

BOTTOM VIEW



SIDE VIEW



APPLICATIONS

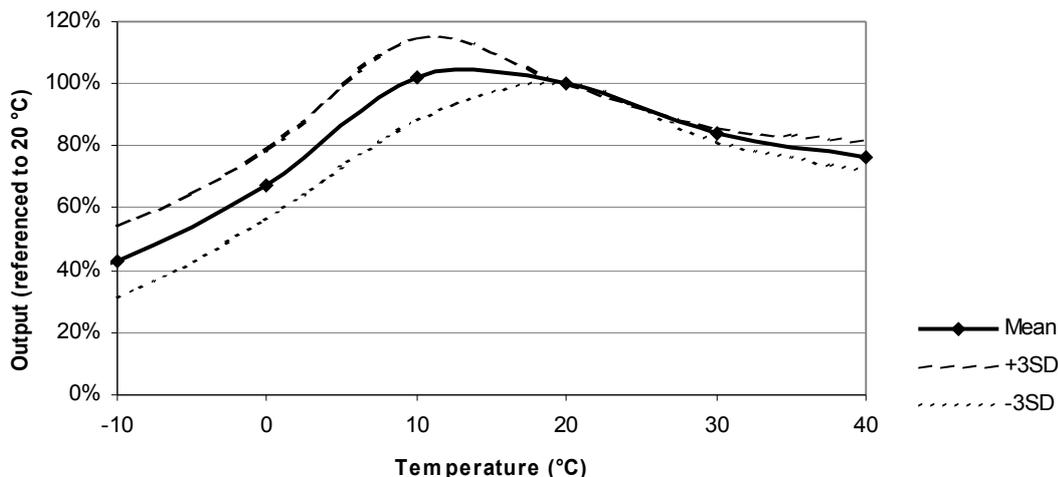
Leak Detection
Safety and Environmental Control

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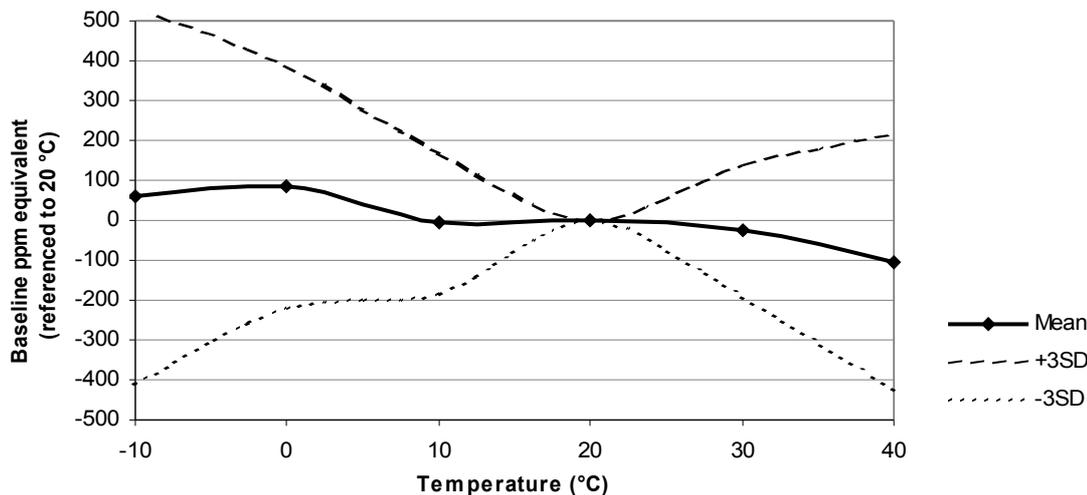
TEMPERATURE DEPENDENCE

The output of an electrochemical sensor varies with temperature. The graphs below show the variation in output with temperature for this type of sensor. The results are shown in the graphs as a mean for a batch of sensors, along with confidence intervals corresponding to ± 3 times the standard deviation. The sensitivity dependence is expressed as a percentage of the signal at 20 °C. The shift in baseline is shown in ppm referenced to 20 °C.

Sensitivity Temperature Dependence



Baseline Temperature Dependence



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