

# SPECIFICATION SHEET for AMMONIA SENSOR with FAST RESPONSE TYPE NH3/CR-1000

### PERFORMANCE CHARACTERISTICS

Nominal Range	0 – 1000 ppm	
Maximum Overload	2000 ppm	
Expected Operation Life	2 years in air	
Output Signal	25 ± 8 nA/ppm	
Resolution	4 ppm	
Temperature Range	- 10 ℃ to 40 ℃	
Pressure Range	Atmospheric 1)	
Pressure Coefficient	No data	
T <sub>90</sub> Response Time	< 35 sec	
Relative Humidity Range	15 % to 90 % R.H.	
	non-condensing	
Baseline	0 ppm ± 16 ppm	
Maximum Zero Shift (+20℃ to	-32 ppm	
+40℃)		
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)	< 16 ppm	

<sup>1)</sup> no data for deviations

#### **CROSS-SENSITIVITY DATA**

Interfering Gas	Concentration	Reading
СО	300 ppm	0 ppm
H <sub>2</sub>	200 ppm	0 ppm
SO <sub>2</sub> 3)	20 ppm	-7 ppm
H <sub>2</sub> S <sup>3)</sup>	20 ppm	7 ppm
NO 3)	20 ppm	-1 ppm
NO <sub>2</sub> 3)	20 ppm	-20 ppm
Cl <sub>2</sub>	20 ppm	-55 ppm
CO2	2 %	0 ppm

<sup>&</sup>lt;sup>3)</sup> Long term exposures and high concentrations may affect the performance characteristics

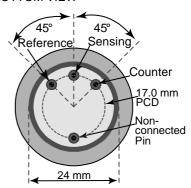
Performance data conditions: 20 ℃, 50% RH and 1013 mbar

## PHYSICAL CHARACTERISTICS

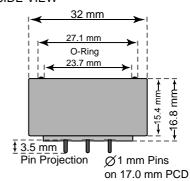
Weight	~ 13 g
Position Sensitivity	None
Storage Life	Six months in
	container
Recommended Storage	5 ℃ – 20 ℃
Temperature	
Warranty Period	12 months from date
	of dispatch

## **Compact-Size Outline Dimensions**

#### **BOTTOM VIEW**



### SIDE VIEW



## **APPLICATIONS**

Leak Detection Safety and Environmental Control

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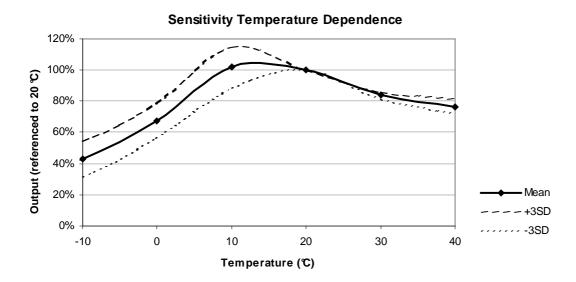
<sup>&</sup>lt;sup>2)</sup> abrupt changes in rel. humidity causes a short term transient signal

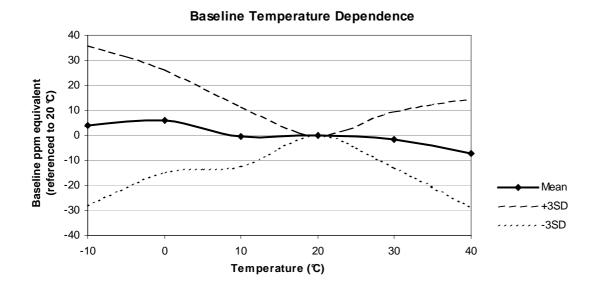


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#### **TEMPERATURE DEPENDENCE**

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  $\pm 3$  times the standard deviation. The sensitivity dependence is expressed as a percentage of the signal at 20 °C. The shift in bas eline is shown in ppm referenced to 20 °C.





The data contained in this document is for guidance only. Membrapor AG accepts no liability for any consequential losses, injury or damage resulting from the use of this document or the information contained within it. The data is given for guidance only. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.

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