NEMOTO SENSORTECH DIVISION
NANO & CYBERTECH DIVISION

TECHNICAL INFORMATION SHEET:
NEMOTO NT-NH3 Electrochemical Ammonia Sensor

General Description

The NT-NH3 is a new electrochemical gas sensor with 3 electrodes for the detection of Ammonia in a variety of gas detection applications. Exhibiting high performance with long-term stability, this compact (20.4mm dia) sensor is suitable for portable Gas Detection Instruments or Fixed Gas Detection heads.

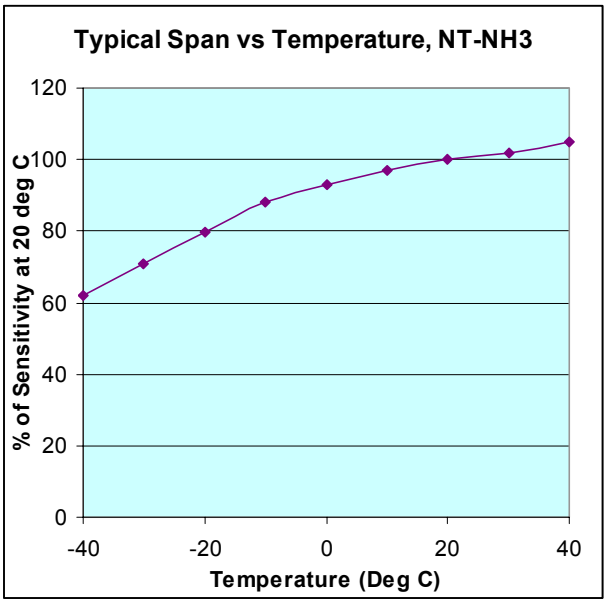
Nemoto's porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.

Specifications NT-NH3

Detectable gas:	Ammonia
Detection range:	0 – 100 ppm
Maximum range (short periods)	200 ppm
Output current:	40 +/- 12 nA/ppm
Reproducibility:	+/- 10%
Zero in clean air:	<+/-10ppm equivalent
Output drift in air:	< 2%/month
Response time ($T_{90\%}$):	< 90 seconds
Temperature drift (zero)	<15ppm (-20to +50°C)
Expected lifetime	>2 years

Operating conditions:

Operating temperature:	-40°C to + 40°C
Humidity range (constant)	15-90% RH
Humidity range (intermittent)	0-99%% RH
Pressure:	0.9 – 1.1 atm
Recommended resistor:	10 ohms
Bias voltage:	Not required
Recommended Storage temp	0-20°C
Storage time (without compromising lifetime)	6 months



Further performance data and information on operating characteristics will be available on the Characterisation Document NTNH3-CD (pending)

Nemoto has a policy of continuous development and improvement of its products. As such the specification for the device outlined in the data sheet may be changed without notice

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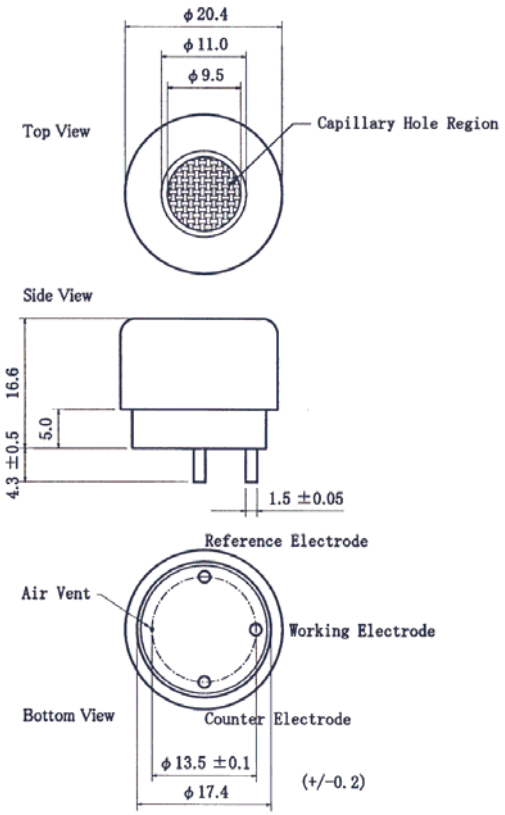
Head Office: **N.E.T.** Srl Via Legnano 2 – 20010 Cornaredo, Milan, ITALY
Tel: (+39) 02 935 44190 Fax: (+39) 02 935 40347
WEB: www.nemototech.com E-MAIL: info@nemototech.com

Typical Cross-Sensitivities:

Gas	Test Gas Used (ppm)	NH_3 Concentration Equivalent (ppm)	% Cross Sensitivity
Ammonia	100	100	100
Hydrogen sulphide	10	<30	<300
Hydrogen	1000	0	0
Methane	5000	0	0
Carbon dioxide	5000	0	0
Sulphur dioxide	10	<15	<150
Nitric oxide	20	0	0
Nitrogen dioxide	20	<2	<10
Carbon Monoxide	200	0	0
Ethanol	100	0	0
Ethylene	1000	0	0
Chlorine	10	0	0

Dimensions:



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