



# TECHNICAL INFORMATION SHEET

## NE7-NO<sub>2</sub> Electrochemical Nitrogen dioxide (NO<sub>2</sub>) Gas Sensor

Nemoto Sensor  
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### General Description

The NE7-NO<sub>2</sub> is a new electrochemical gas sensor with 3 electrodes for the detection of Nitrogen Dioxide (NO<sub>2</sub>) in a variety of gas detection applications.

Exhibiting high performance with long-term stability, this compact (32mm dia) sensor is suitable for portable Gas Detection Instruments or Fixed Gas Detection heads alike.

The NE7-NO<sub>2</sub> is particularly suitable for more challenging NO<sub>2</sub> monitoring applications where high accuracy and rugged long term performance is required. 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.



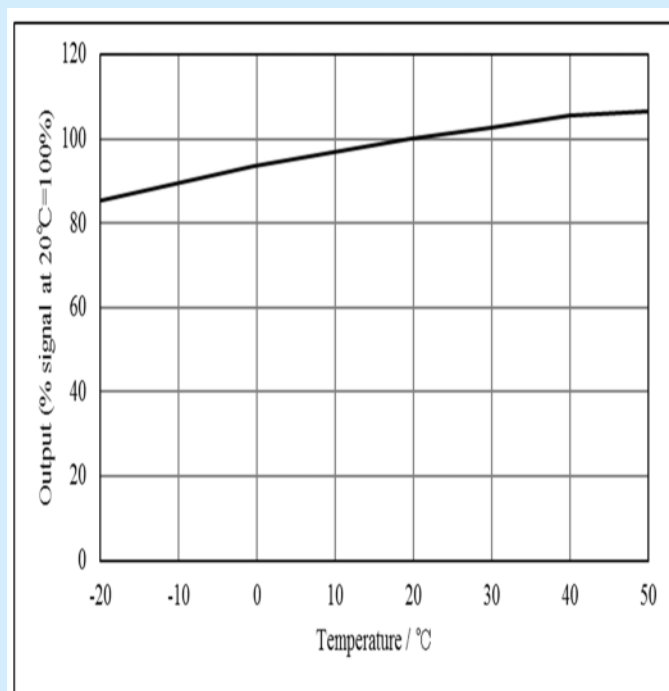
### Specifications:

Detectable Gas	Nitrogen dioxide (NO <sub>2</sub> )
Detection Range	0-30 ppm
Maximum overload	300 ppm
Output Current *	720 +/- 250 nA/ppm
Lowest detectible limit	0.05 ppm
Reproducibility (same day)	+/- 2%
Zero in clean air	?????
Long term drift:	
Zero	< +/- 0.1ppm / Year
Span	< 2% Signal / Month
Response time (T <sub>90%</sub> )	< 30 seconds
Temperature drift (zero)	< +/- 0.5ppm (-20°C to +50°C)
Expected lifetime	> 2 years
Temperature Range:	-20°C to +50°C
Humidity range (constant)	15-90% RH
Humidity range intermittent)	0-99% RH
Pressure	0.9 - 1.1 atm
Recommended load resistor	10 Ω
Recommended Storage time	< 6 months

\* Note that the polarity of the signal is negative - i.e. it is in the opposite direction to various other similar electrochemical sensors such as those for CO, H<sub>2</sub>S etc.

Test data on drift, poisoning, temperature performance, linearity, cross-sensitivities etc.... are available in the Full Manual.

### Temperature response



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

NE7-NO<sub>2</sub>.ppp, issue 1, July 2021

### Contact Information:

Europe & Africa Area

Asia Area

Americas Area

### Website

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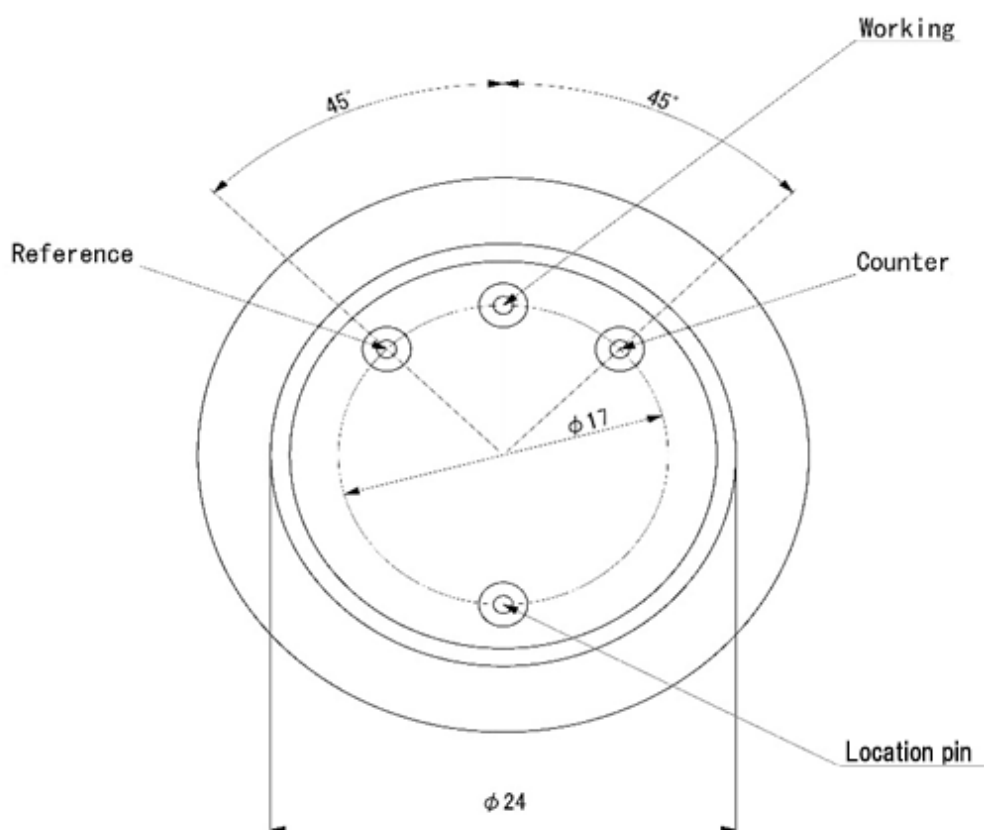
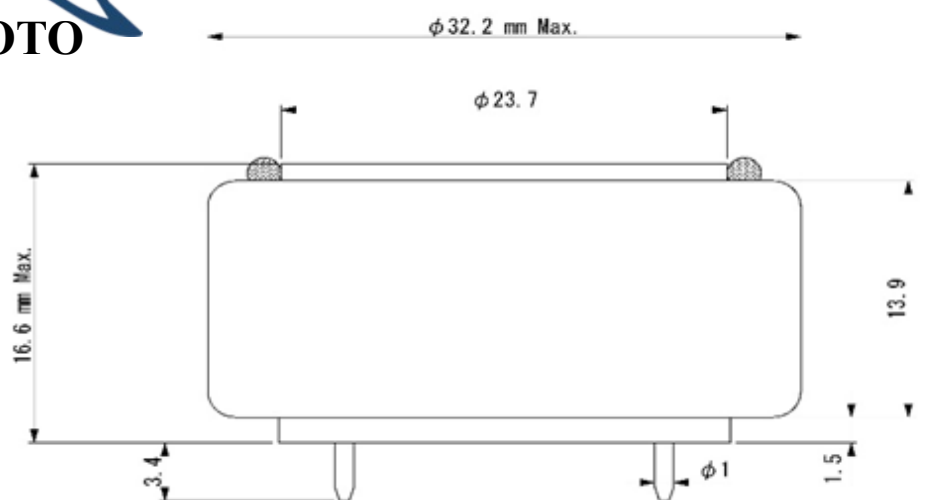
### Telephone

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+81 3 3333 2760

+1 604 761 7363

## Dimensions:



Tolerances :  $\pm 0.15$

**Note:** The output signal of the NE7-NO2 sensor is of negative polarity compared to (for example) CO and H<sub>2</sub>S sensors.

Test data on drift, temperature performance, linearity, cross sensitivities etc are available in the Full Manual.

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