



TECHNICAL INFORMATION SHEET

NE7-NO2 Electrochemical Nitrogen dioxide (NO₂) Gas Sensor

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JAPAN

General Description

The NE7-NO2 is a new electrochemical gas sensor with 3 electrodes for the detection of Nitrogen Dioxide (NO₂) in a variety of gas detection applications.

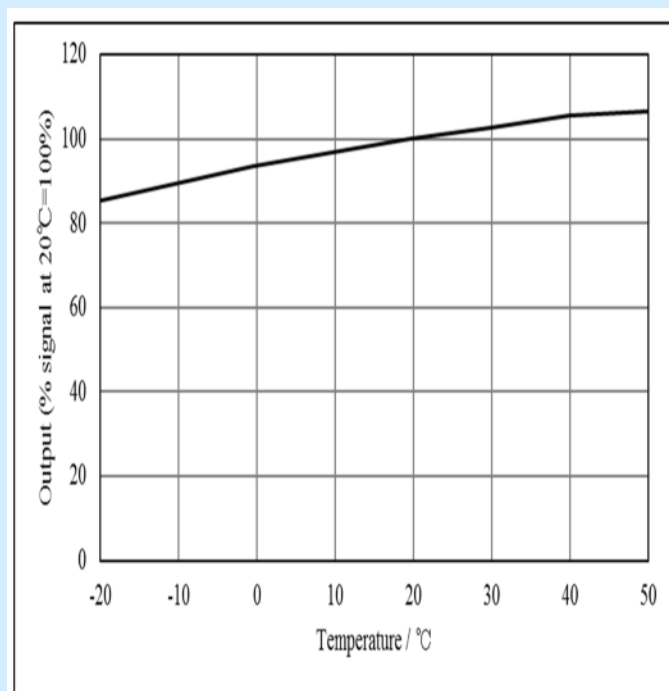
Exhibiting high performance with long-term stability, this compact (32mm dia) sensor is suitable for portable Gas Detection Instruments or Fixed Gas Detection heads alike. The NE7-NO2 is particularly suitable for more challenging NO₂ monitoring applications where high accuracy and rugged long term performance 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 ₂)
Detection Range	0-30 ppm
Maximum overload	200 ppm
Output Current *	720 +/- 250 nA/ppm
Lowest detectible limit	0.05 ppm
Reproducibility (same day)	+/- 2%
Zero in clean air	+/- 0.1ppm NO ₂ equivalent
Long term drift:	
Zero	< +/- 0.1ppm / Year
Span	< 2% Signal / Month
Response time (T _{90%})	< 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

Temperature response



* 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, H₂S etc.

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

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-NO2.ppp, issue 2, Jan 2023

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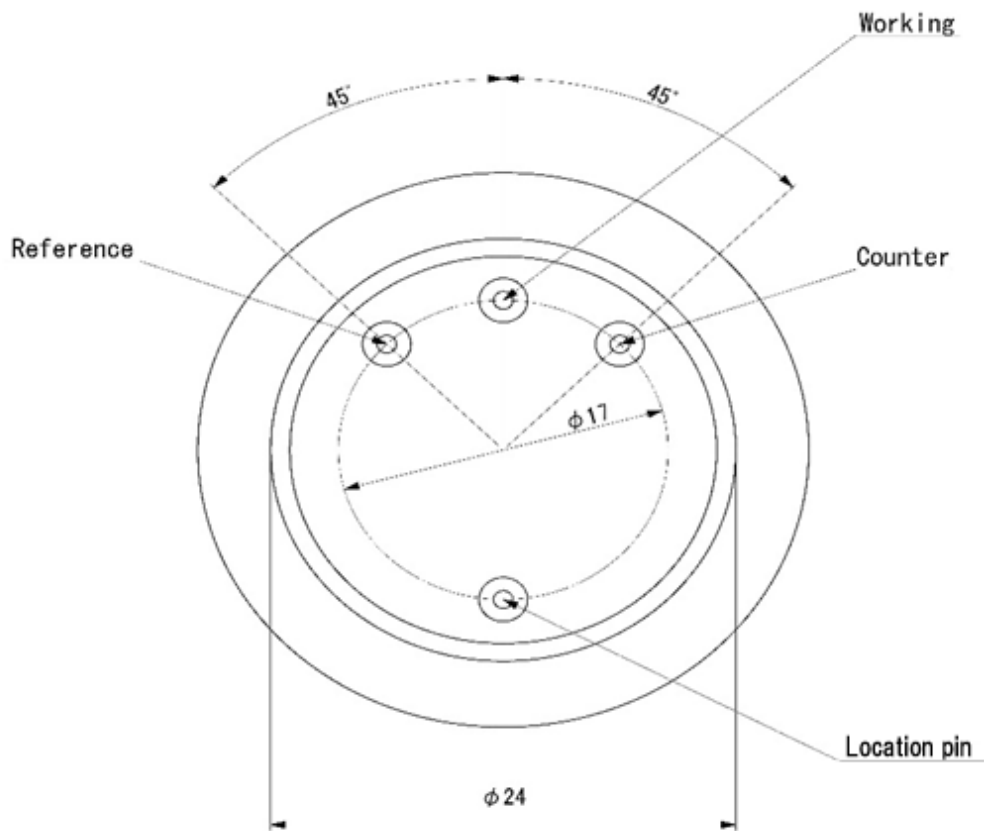
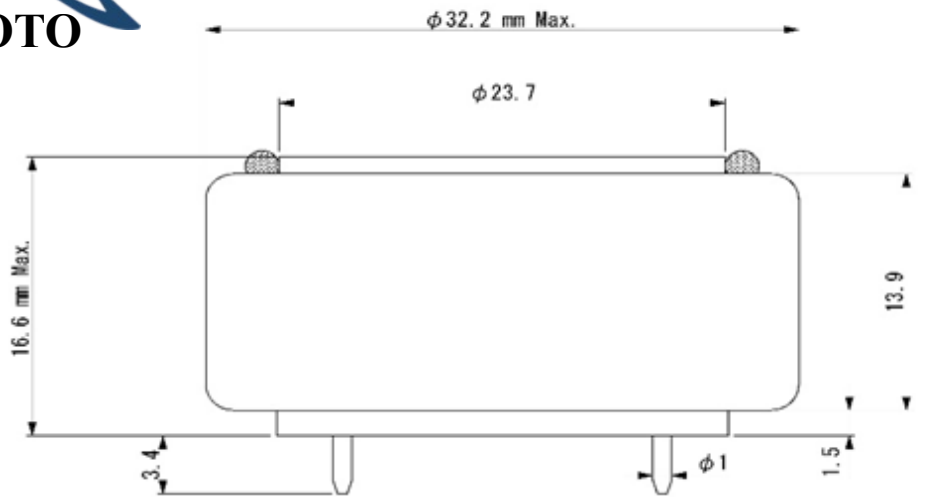
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Dimensions:



Tolerances : ± 0.15

Note: The output signal of the NE7-NO₂ sensor is of negative polarity compared to (for example) CO and H₂S sensors.

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

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