



# TECHNICAL INFORMATION SHEET

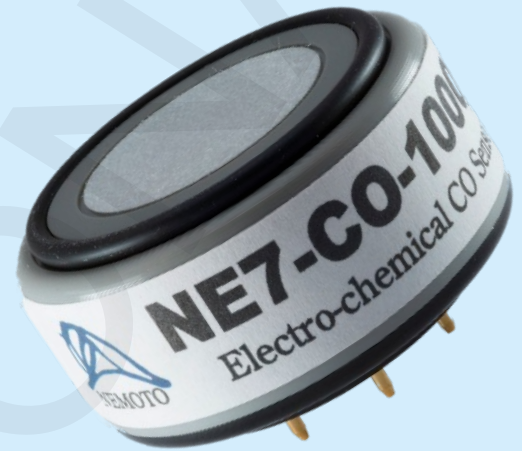
## NE7-CO-H10000 Electrochemical Carbon Monoxide (CO) Gas Sensor

**Nemoto Sensor  
Engineering Co., Ltd.**  
4-10-9, Takaido-higashi,  
Suginami-ku, Tokyo,  
JAPAN

### General Description

The NE7-CO-H10000 is a new electrochemical gas sensor with 4 electrodes for the detection and monitoring of Carbon monoxide (CO). The sensor is particularly suitable for applications where zero cross-sensitivity to Hydrogen is essential, such as Flue Gas Analysers and Anti-smoking breath-testers. The performance of the sensor is designed to conform with EN 50379 in Flue Gas Analysers. The NE7-CO-H10000 is related to the NE7-CO-H sensor but is a modified version to extend the range of the sensor to 0-10,000ppm

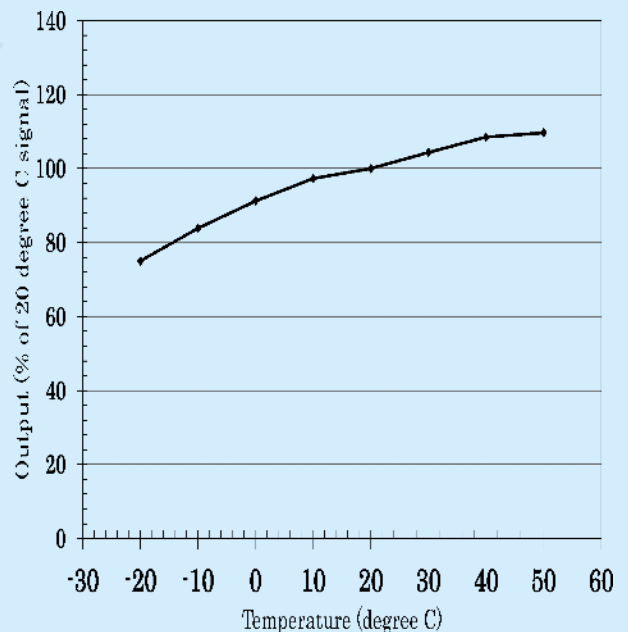
Nemoto's porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.



### Specifications:

Detectable Gas	Carbon monoxide (CO)
Detection Range	0-10,000ppm
Maximum overload	20,000ppm
Output Current	15 +/- 4 nA/ppm
Reproducibility (same day)	+/- 2%
Zero in clean air	TBA
<b>Long term drift:</b>	
Zero	TBA
Span	< 5% of Signal /year
Response time (T <sub>90%</sub> )	< 40 seconds
Maximum Temperature drift (zero)	-10ppm to +50ppm (20°C to +50°C)
Expected lifetime	> 5 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
Storage time	6 months
(Without compromising lifetime)	

### Temperature response



Test data on drift, poisoning, temperature performance, linearity are available on the Characterisation Document.

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-co-h10000.ppp, issue 1, August 2015

### Contact Information:

Europe & Africa Area  
Asia Area  
Americas Area

### Website

www.nemoto.eu  
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www.nemoto.eu

### email

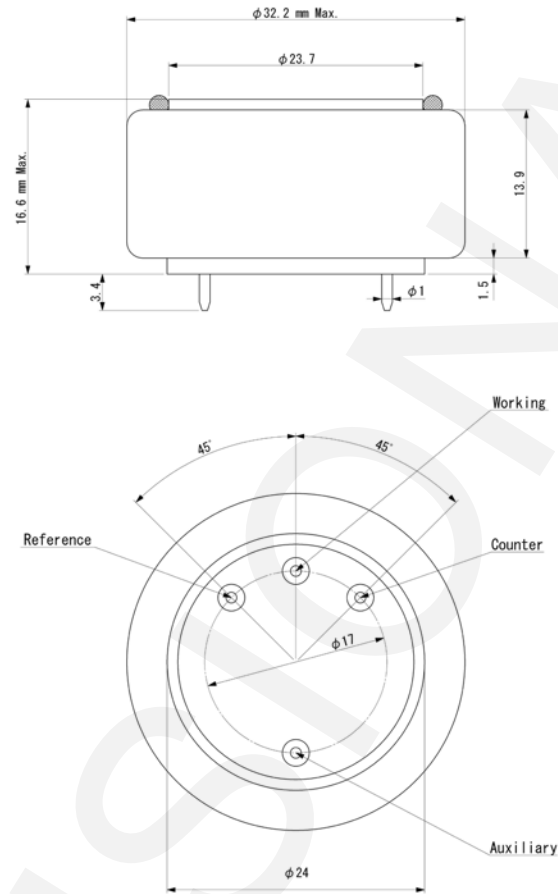
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+81 3 3333 2760  
+1 604 761 7363



## Dimensions:



Tolerances :  $\pm 0.15$

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## Typical Cross-Sensitivities:

Gas	Test Gas Used (ppm in Air)	Test result (ppm equivalent)	% Cross-sensitivity
Carbon Monoxide	100	100	100
Hydrogen sulphide	10	0	0
Hydrogen*	100	< 1	< 1
Methane	1000	0	0
Carbon dioxide	10000	0	0
Sulphur dioxide	5	0	0
Nitric oxide	35	< 7	< 20
Nitrogen dioxide	50	-0.5 to +1	< +/- 2
Ethanol	500	0	0

\* When Nemoto's recommended circuit is employed

Test data on drift, temperature performance, linearity etc are available on the Characterisation Document.

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