



TECHNICAL INFORMATION SHEET

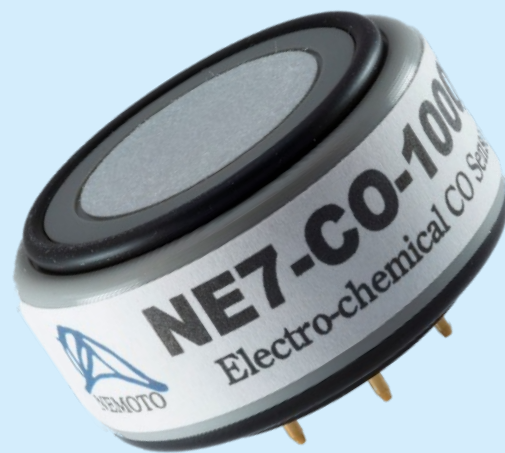
NE7-CO-H Electrochemical Carbon Monoxide (CO) Gas Sensor

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

General Description

The NE7-CO-H 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.

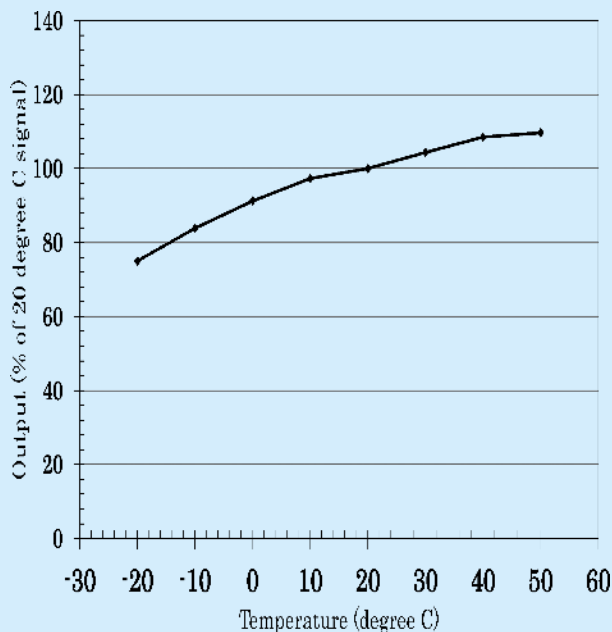
Nemoto's porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.



Specifications:

| | |
|-----------------------------------|------------------------------------|
| Detectable Gas | Carbon monoxide (CO) |
| Detection Range | 0-1000ppm |
| Maximum overload | 2000ppm |
| Output Current | 100 +/- 20 nA/ppm |
| Reproducibility (same day) | +/- 1% |
| Zero in clean air at 20°C | <5ppm equivalent |
| Long term sensitivity drift: | < 5% Signal / Year |
| Response time (T _{90%}) | < 35 seconds |
| Maximum temperature drift (zero) | -3ppm to +15ppm (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

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Contact Information:

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Website

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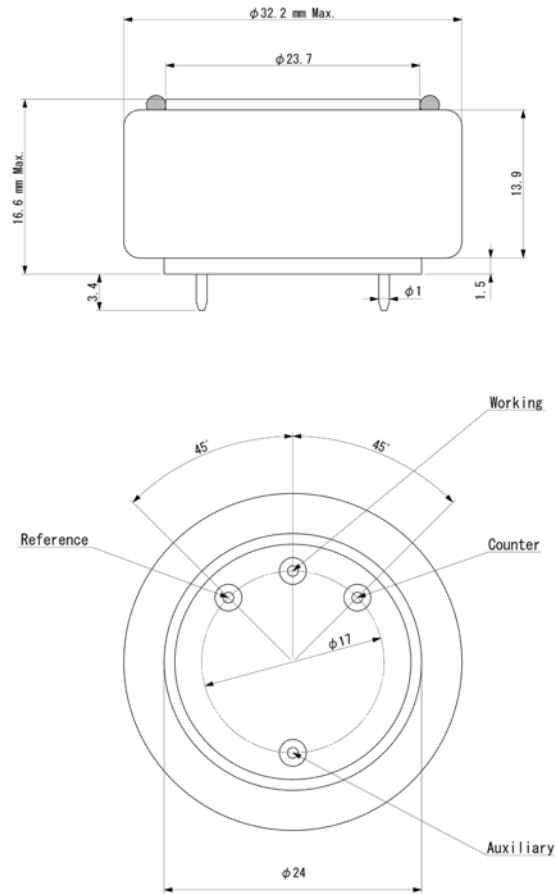
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Dimensions:



Tolerances : ± 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

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