



TECHNICAL INFORMATION SHEET

NE4-CO-SI Electrochemical Carbon Monoxide (CO) Gas Sensor

Nemoto Sensor
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JAPAN

General Description

The NE4-CO-SI is a new electrochemical gas sensor with 3 electrodes for the detection of Carbon monoxide (CO). Designed as a lower cost alternative to the popular NE4-CO sensor, for light industrial/commercial applications such as monitoring underground car parks, the NE4-CO-SI exhibits high performance with long-term stability in a very cost conscious package. The sensor has industry accepted dimensions and pin-out footprint, making the sensor compatible with a variety of commercially available fixed gas detection systems and 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:

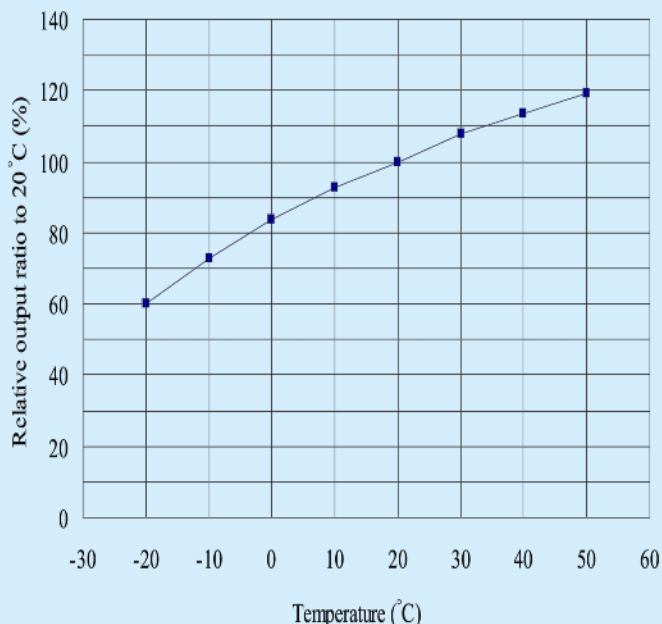
Detectable Gas	Carbon monoxide (CO)
Detection Range	0-1000ppm
Maximum overload	2000ppm
Output Current	50 +/- 10 nA/ppm
Reproducibility (same day)	+/- 2%
Zero in clean air (20°C)	< +/- 5ppm equivalent

Long Term Drift:

Zero	< +/- 5ppm / year
Span	< 5% Signal / Year
Response time (T _{90%})	< 30 seconds
Temperature drift (zero)	<10ppm (-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
Storage time	6 months
(Without compromising lifetime)	

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

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

ne4-co-si-ppp, issue 6, January 2016

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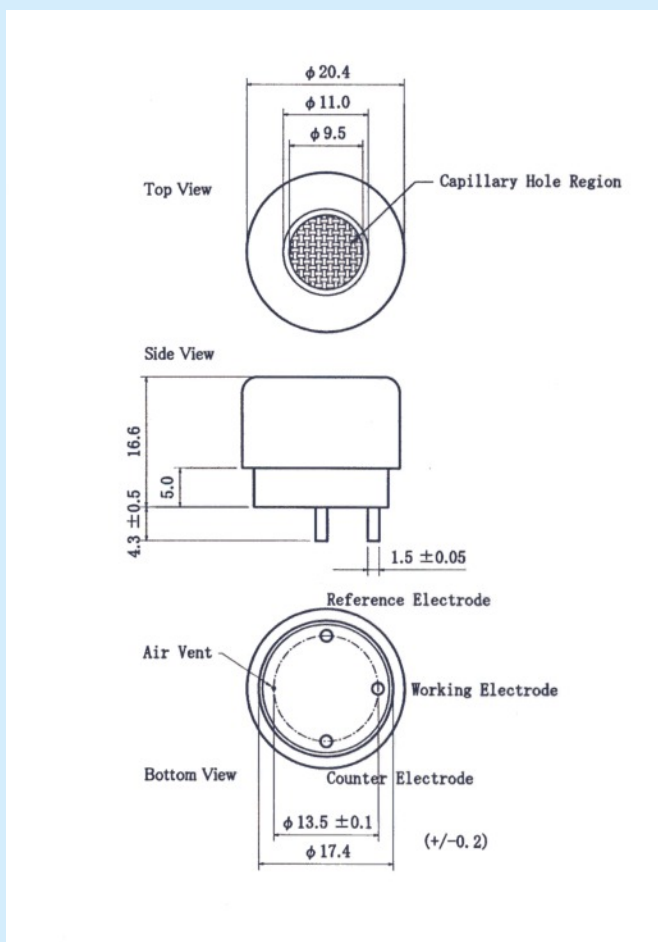
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Dimensions:



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	500	200	40
Methane	5000	0	0
Carbon dioxide	5000	0	0
Sulphur dioxide	25	0	0
Nitric oxide	50	< 25	< 50
Nitrogen dioxide	30	< 2	< 7
Ammonia	1000	0	0
Ethanol	2000	< 10	< 0.5
Ethylene	100	< 80	< 80
Chlorine	10	0	0

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

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ne4-co-si.ppp, issue 6, January 2006

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