



# TECHNICAL INFORMATION SHEET

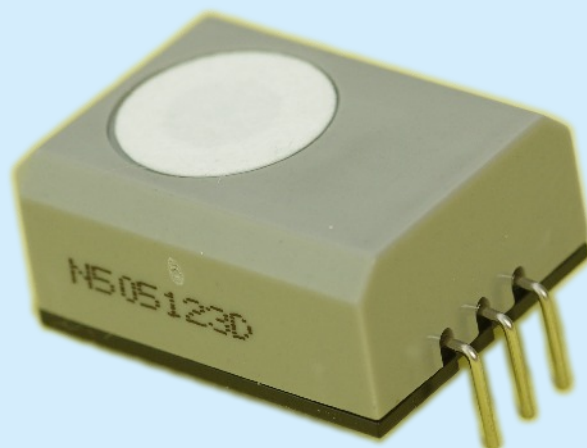
## NAP-505 Low-cost Electrochemical Carbon Monoxide (CO) Gas Sensor

Nemoto Sensor  
Engineering Co., Ltd.  
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Suginami-ku, Tokyo,  
JAPAN

### General Description

The NAP-505 Gas Sensor is a low cost 3-Electrode Electrochemical cell designed for the detection and measurement of carbon monoxide in the range 0-1000ppm, in domestic carbon monoxide detectors, fire detectors and air quality monitors.

- Highly specific to target gas
- Unaffected by humidity
- 7 year lifetime
- Very low long term drift
- Low power consumption
- 3-Electrode design for greater stability
- Compact, leak-proof enclosure
- Resistant to shocks and vibration
- Terminals may be soldered



### Specifications:

Detectable Gas	Carbon monoxide (CO)
Detection Range	0-1000ppm
Maximum overload	2000ppm
Output Current	40 +/- 10 nA/ppm
Reproducibility (same day)	+/- 2%
Zero in clean air	<+/- 5ppm equivalent)
Long term output drift	< 5% / year
Response time (T <sub>90%</sub> )	< 30 seconds
Temperature drift (zero)	<10ppm (-20°C to +50°C)
Expected lifetime	> 7 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
Bias voltage	Not required
Recommended storage temp	0°C to +20°C
Storage time	6 months
(Without compromising lifetime)	

### Typical Cross-Sensitivities

Gas	% Cross-sensitivity
Carbon Monoxide	100
Hydrogen sulphide	0
Hydrogen	40
Methane	0
Carbon dioxide	0
Sulphur dioxide	0
Nitric oxide	<60
Nitrogen dioxide	< 6
Ammonia	0
Ethanol	< 2
Ethylene	0
Chlorine	0

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

nap-505.ppp, issue 5, March 2019

### Contact Information:

Europe & Africa Area

Asia Area

Americas Area

### Website

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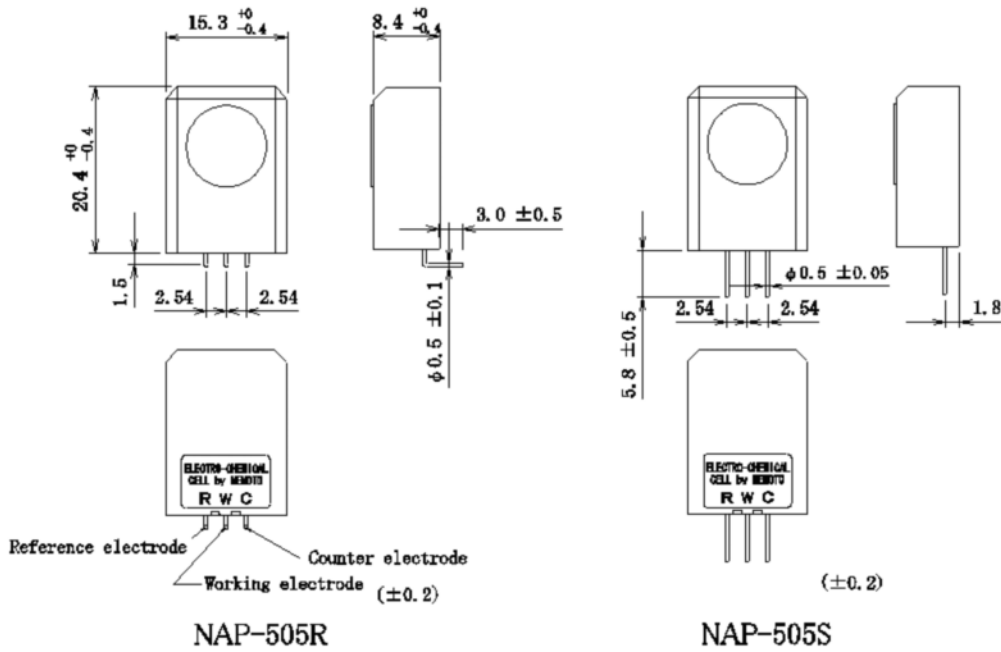
+81 3 3333 2760

+1 604 761 7363

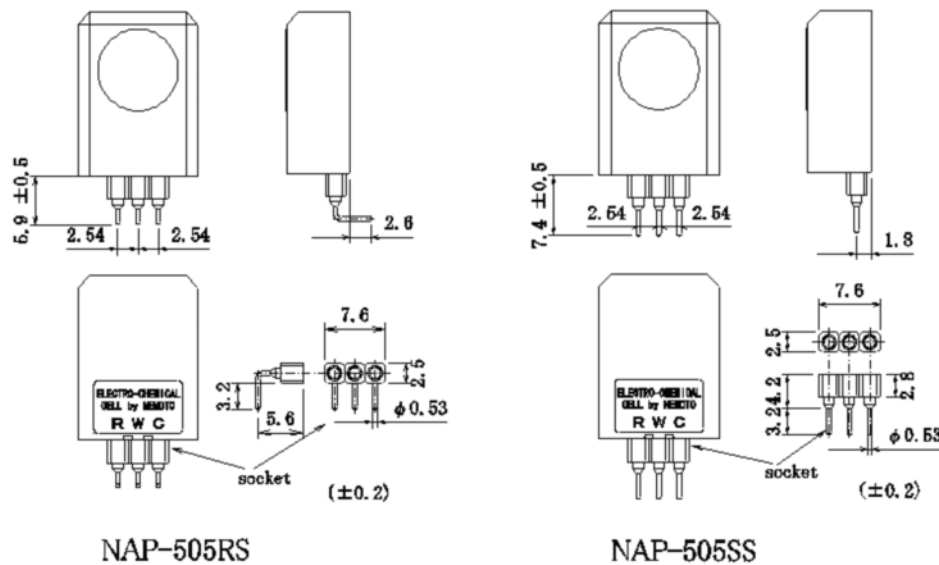


## Dimensions:

### Direct Soldering Models



### Socket Models



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