



TECHNICAL INFORMATION SHEET

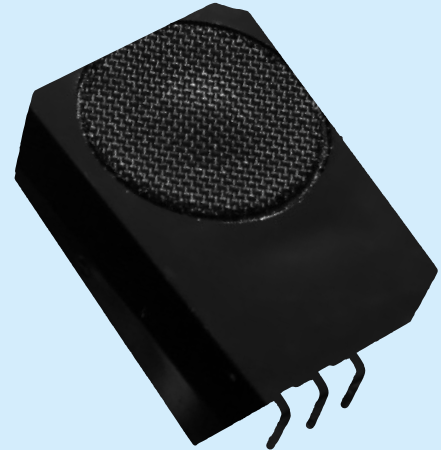
NAP-508 Low-cost Electrochemical Carbon Monoxide (CO) Gas Sensor

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

General Description

The NAP-508 Gas Sensor is a new 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. The sensor benefits from a warranted lifetime of 10 years.

- **Highly specific to target gas**
- **Unaffected by humidity**
- **10 year lifetime!**
- **Very low long term drift**
- **Low power consumption**
- **3-Electrode design for greater stability**
- **Compact, leak-proof enclosure**
- **Component Approved to UL 2075 / 2034**
- **Terminals may be soldered**



Specifications:

Detectable Gas	Carbon monoxide (CO)
Detection Range	0-1000 ppm
Maximum overload	10,000 ppm
Output Current	20 +/- 5 nA/ppm
Reproducibility (same day)	+/- 2%
Zero in clean air	<+/- 5ppm equivalent)
Long term output drift	< 3% / year
Response time (T _{90%})	< 30 seconds
Temperature drift (zero)	<15ppm (-20°C to +50°C)
Expected lifetime (warranted)	> 10 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	12 months
(Without compromising lifetime)	

Typical Cross-Sensitivities

Gas	% Cross-sensitivity
Carbon Monoxide	100
Hydrogen sulphide	0
Hydrogen	30
Methane	0
Carbon dioxide	0
Sulphur dioxide	0
Nitric oxide	0
Nitrogen dioxide	<5
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

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Contact Information:

Europe & Africa Area
Asia Area
Americas Area

Website

www.nemoto.eu
www.nemoto.co.jp
www.nemoto.eu

email

eusensor@nemoto.co.jp
sensor2@nemoto.co.jp
nasensor@nemoto.co.jp

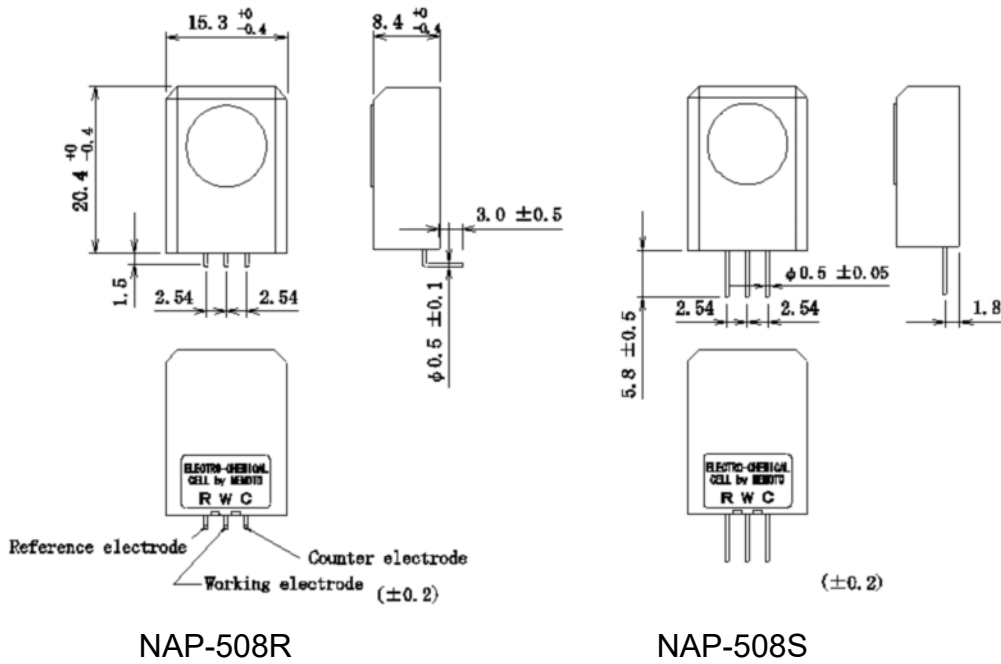
Telephone

+44 (0)1799 543968
+81 3 3333 2760
+1 604 761 7363

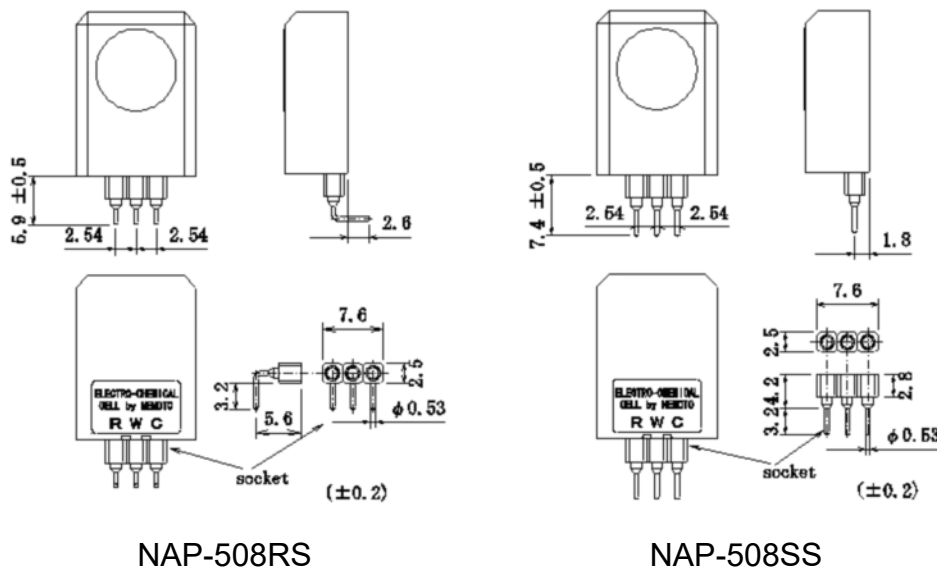


Dimensions:

Direct Soldering Models



Socket Models



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