

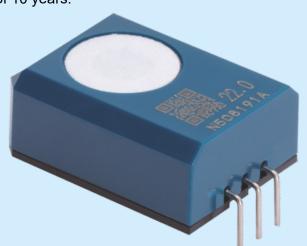
TECHNICAL INFORMATION SHEET NAP-508 Low-cost Electrochemical Carbon Monoxide (CO) Gas Sensor

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

General Description

The NAP-508 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. 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 equvalent)
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	0°C to +20°C
temp	
Storage time	12 months

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

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

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

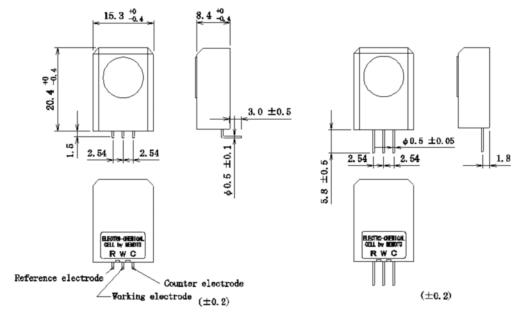
nap-508.ppp, issue 4, August 2016

(Without compromising lifetime)



Dimensions:

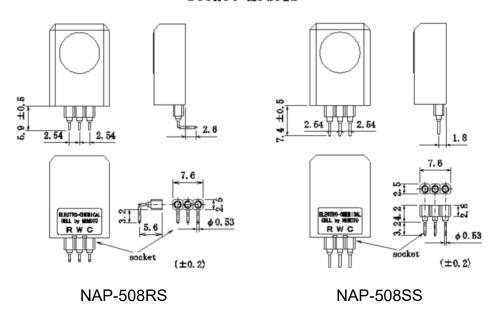
Direct Soldering Models



NAP-508R

NAP-508S

Socket Models



Test data on drift, 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-508.ppp, issue 4, August 2016