



# TECHNICAL INFORMATION SHEET

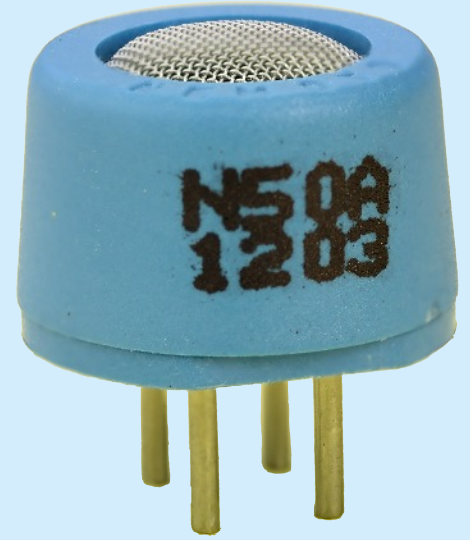
## NAP-50A Catalytic Gas Sensor, Optimised For Methane / Natural Gas

Nemoto Sensor  
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Suginami-ku, Tokyo,  
JAPAN

### General Description

The NAP-50A Gas Sensor is a low-cost Catalytic Flammable Gas Sensor designed for the detection and measurement of Methane or Natural Gas in the range 0-50% LEL. It is a slightly modified version of the original NAP55A sensor, to reduce the effect of potential cross sensitive gases likely to be encountered in domestic premises, particularly Ethanol, in compliance with the European standard for Residential Gas Detectors EN 50194.

The NAP-50A should therefore only be selected if high sensitivity to Natural Gas or Methane only is required, and the lowest cross sensitivity to other flammable gases and vapours is desirable. Where maximum sensitivity to all flammable gases is required, The NAP-55A should be used.



- **Monitors flammability directly**
- **Unaffected by humidity**
- **Very low long term drift**
- **Excellent poison resistance**
- **Single header design for ease of use**
- **Superb temperature stability**
- **Resistant to shocks and vibration**
- **Linear output to 50% LEL**

### Specifications:

Detectable Gas	Methane / Natural Gas
Recommended Voltage:	2.5V +/- 0.2V
Current Drawn:	170 +/- 10mA
Zero Offset:	0mV +/- 35mV
Typical Signal Sensitivity:	37-53mV for 1% CH <sub>4</sub>
Range:	0-50% LEL
Repeatability:	+/- 0.5mV
<b>Maximum Long Term Drift:</b>	
Span:	< +/- 2% Signal / Month
Zero:	< +/- 2 mV / year
Response Time:	T <sub>90</sub> : <10 sec
Temperature Range:	-10°C to +50°C
Humidity:	0-95%RH, non-condensing
Linearity:	Effectively Linear to 60%LEL
Expected Lifetime	5 years

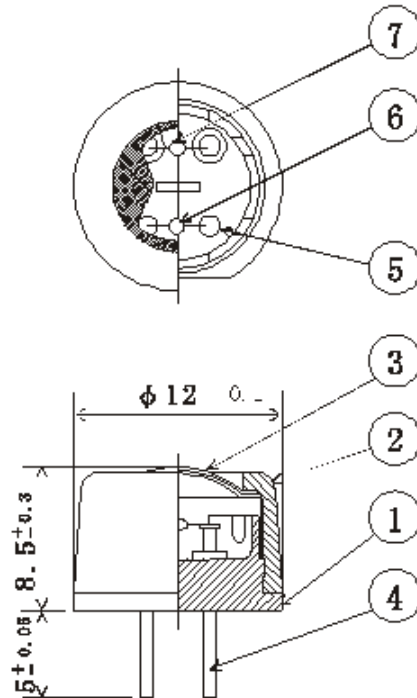
Test data on drift, poisoning, temperature performance, linearity are available on the Characterisation Document.

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

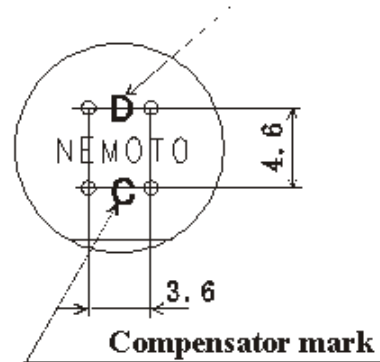
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## Dimensions, Materials and Recommended Circuit

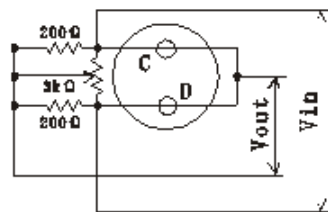
### Sensor : NAP-55A



### Detector mark



### Bottom view



### Measuring Circuit

No.	Parts names	Material	Remarks
1	Mount	Nylon 66	Glass 20% contained
2	Cap	Nylon 66	Glass 20% contained
3	Mesh	SUS 316	#100, Double mesh
4	Pin	Pure Ni	φ 0.8
5	Coil	PPT	φ 30 μm
6	Compensator		Nemopto & Co., Ltd
7	Detector		Nemopto & Co., Ltd

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