



# NEMOTO Sensor Engineering Co.Ltd

## NAP-67A Catalytic Gas Sensor for Propane / Butane / LPG

The Nemoto NAP-67A is a new, improved low cost catalytic flammable gas sensor. Closely related to the very popular NAP-66A sensor, the NAP-67A uses exactly the same sensing elements, but the enclosure in which they are mounted employs a nickel plated brass mounting cap and a phenolic resin header, instead of the Nylon 66 material used in the NAP-66A. As a result, the sensor exhibits an increased sensitivity output and an increase in useful temperature range, whilst being very slightly larger in dimensions, compared to the NAP-66A.



The widened temperature range of the NAP-67A makes it particularly suitable for applications such as recreational vehicles, caravans and marine applications where a wide temperature range is required.

- **Monitors flammability directly**
- **Wide Temperature Range**
- **Very low long term drift**
- **Excellent resistance to catalytic poisons**
- **Single header design for ease of use**
- **Superb temperature stability**
- **Resistant to shocks and vibration**
- **Linear output to 50% LEL**

### Specifications NAP-67A:

Detectable gas: Propane/Butane/LPG

Note: The NAP-67A is not recommended for the measurement or detection of Methane.

Detection range: 0-50% LEL  
Bridge Voltage 2.0V +/- 0.2V  
Bridge Current 160mA +/- 10mV  
Gas Signal\*: Typically 20mV @2000ppm C<sub>4</sub>H<sub>10</sub>  
Bridge zero offset\*: 0 +/- 35mV

\*in Nemoto's recommended bridge circuit

Repeatability:  
Zero: +/- 0.5mV  
Signal: +/- 0.5mV

Long Term Drift: Zero: <+/- 5mV/month

Span: <+/- 2%/month

Linearity: Effectively Linear to 50% LEL

Response time(T<sub>90</sub>): <10 seconds

Note: In practice the response time of a gas sensor is very much dependent on the mounting arrangement within an instrument.

### Environmental Conditions:

Operating temperature: -40°C to +70°C

Humidity range: 0-95% RH

Pressure: 0.9 – 1.1 atm

Storage Temperature: -20°C to +50°C

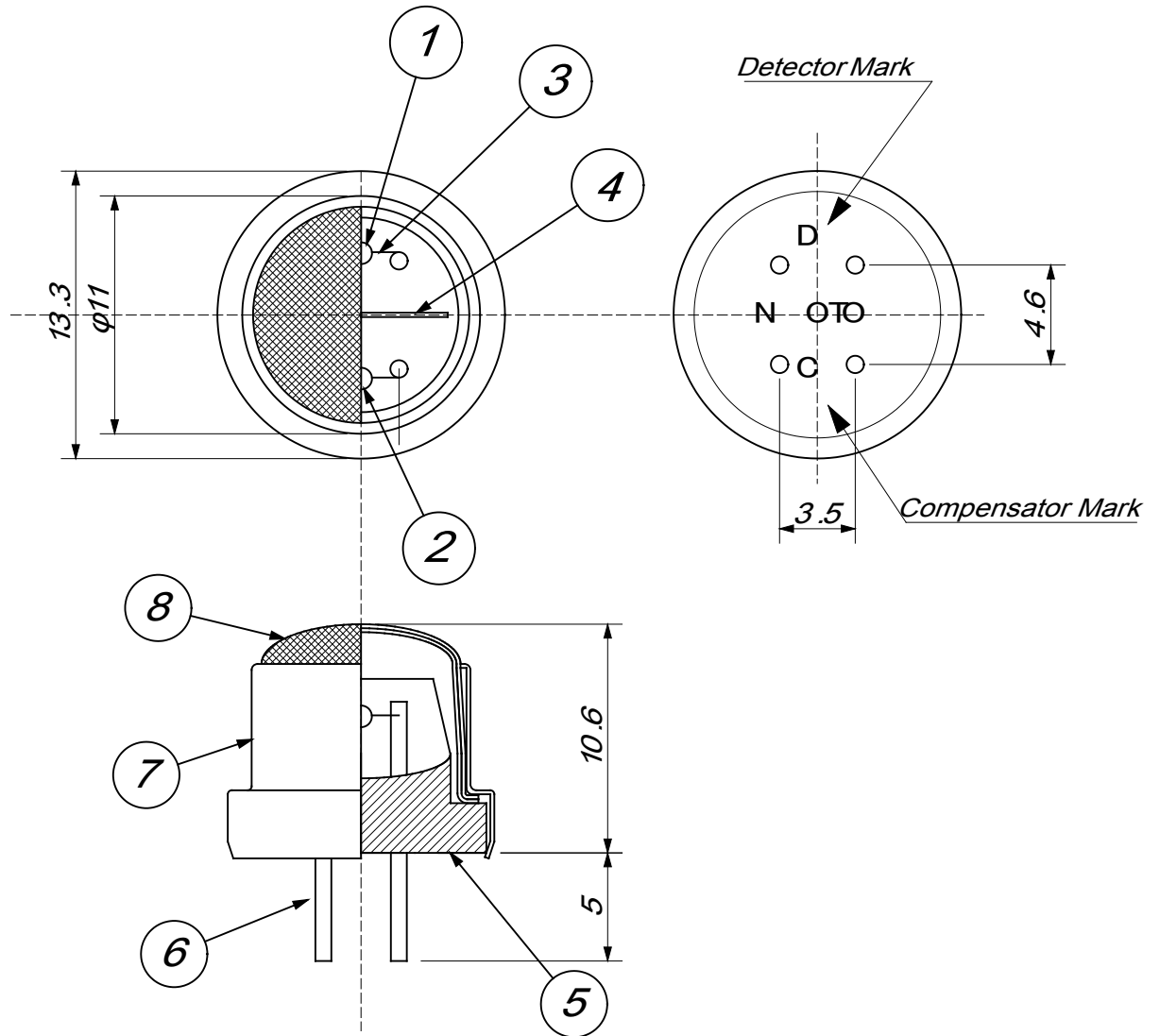
Recommended Storage Time: 6 months

NAP-67A datasheet July 2010

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



Label	Part	Material	Comments
1	Detector	N/A	N/A
2	Compensator	N/A	N/A
3	Coil	Platinum	$\varnothing = 0.03$
4	Separator	304 SS	T = 0.2
5	Base Mount (Header)	Phenolic Resin	
6	Connecting Pin	Nickel	$\varnothing = 0.8$
7	Protective Can	Nickel Plated Brass	T = 0.2
8	Mesh	316 SS	Double