



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 C₄H₁₀
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(T₉₀): <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:

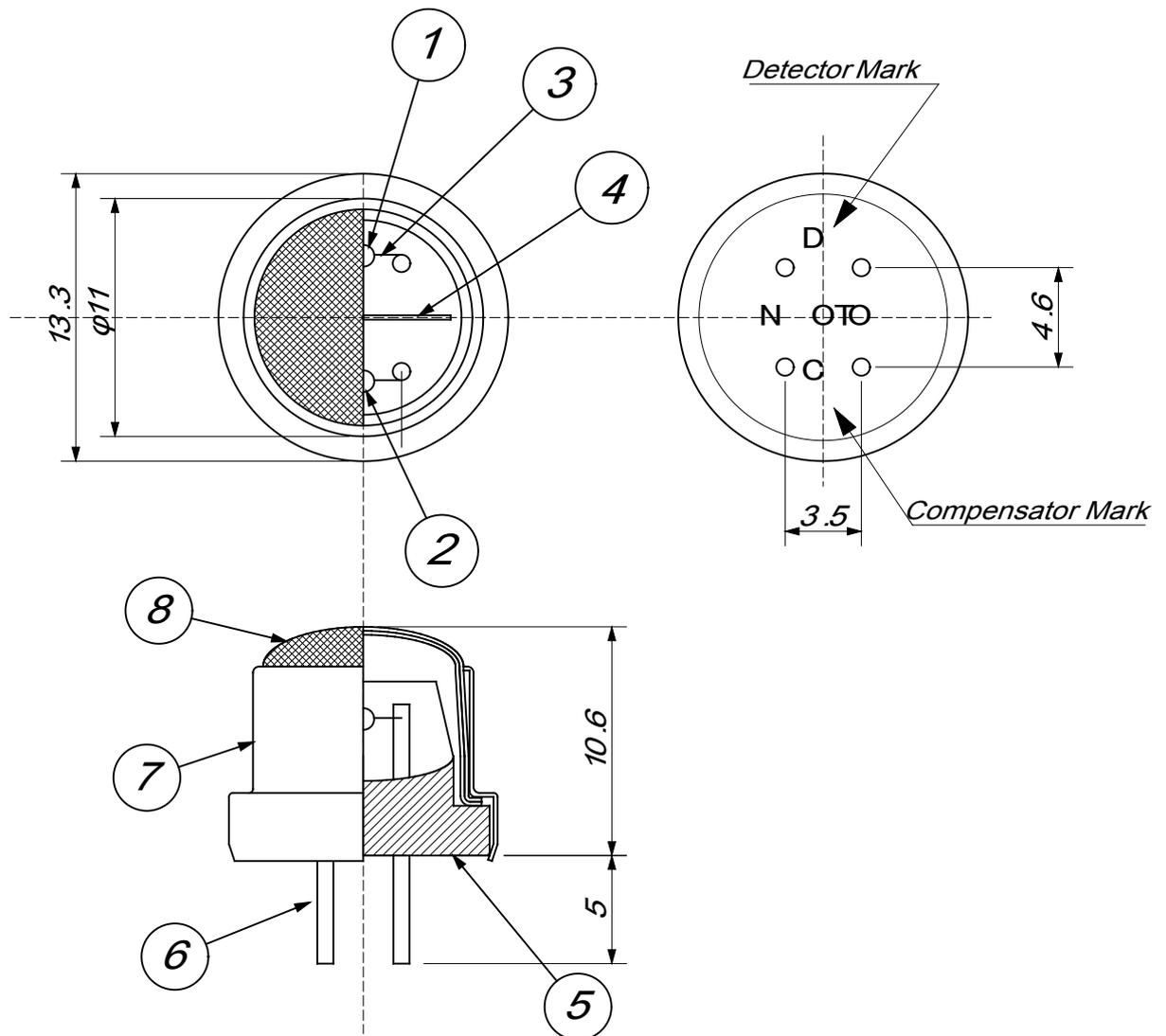
Operating temperature: -40°C to +70°C
Humidity range: 0-95% RH
Pressure: 0.9 – 1.1 atm
Storage Temperature: -20°C to +50°C
Recommended Storage Time: 6 months

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 |