NEMOTO & CO., LTD SENSOR DIVISION

Since 1941

NAP-66A Catalytic Gas Sensor for Propane / Butane / LPG

The NAP-66A Gas Sensor is a low–cost Catalytic Flammable Gas Sensor designed for the detection and measurement of Propane, Butane, and LPG vapours in the range 0-50% LEL. Developed primarily for use in Residential Gas Detectors, the NAP-66A has also been found to be useful in a wide variety of applications where reliable detection of gas or fuel leaks and other gas hazards is required at low cost.

The NAP-66A uses the superior catalytic "pellistor" detection principle often used in high quality Industrial Gas Detectors. It hence has many benefits over other low cost gas sensor types:

- **Monitors flammability directly**
- **Unaffected by humidity**
- **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-66A:

Detectable gas:	Propane/Butane/LPG
Detection range:	0-50% LEL (0-2.5% V/V)
Bridge Voltage	2.0V +/- 0.2V
Bridge Current	150mA +/- 10mV
Gas Signal*:	Typically 16mV @2000ppm C_4H_{10}
Bridge zero offset*:	0 +/- 35mV

*in Nemoto's recommended bridge circuit

Repeatability:	
Zero:	+/- 0.5mV
Signal:	+/- 0.5mV
Expected lifetime:	5 years
Long Term Drift: Zero:	<+/- 5mV/month
Span:	<+/- 2%/month
Linearity:	Effectively Linear to 50% LEL
Response time(T_{90}):	<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:	-10°C to +50°C
Humidity range:	0-95% RH
Pressure:	0.9 – 1.1 atm
Storage Temperature:	-20°C to +50°C
Recommended Storage Time:	6 months

More detailed information, covering all aspects of performance, including long term stability, repeatability, environmental tolerances to humidity, temperature, wind, shock, cross sensitivity to other gases, recommended circuitry, handling requirements and an explanation of the operating principles of the NAP-66A, please consult the Handling Manual for the device, available on request.

NAP-66A datasheet October 2012

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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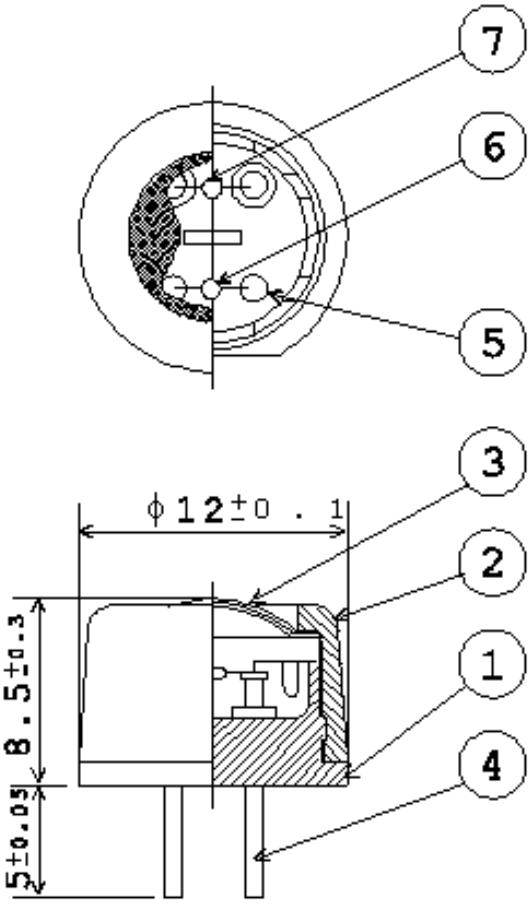
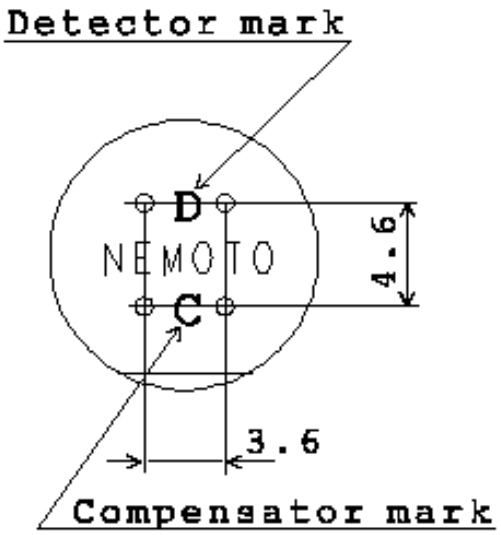
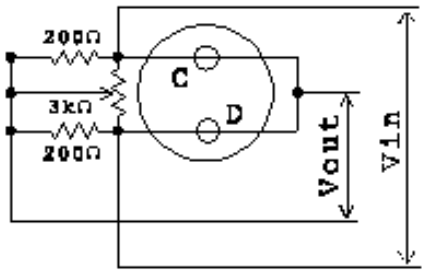
Dimensions, Materials and Recommended Circuit

Since 1941





Bottom view



Measuring circuit

No.	PARTS	MATERIALS	REMARKS
7	Detector	———	NEMOTO & CO.,LTD.
6	Compensator	———	NEMOTO & CO.,LTD.
5	Coil	Pt	φ30μm
4	Pin	Pure Ni	φ0.8
3	Strainer	SUS316 #100mesh	Double layered
2	Cap	66Nylon	20% Glass
1	Base mount	66Nylon	20% Glass

APPROVED	CHECKED	DESIGNED	DRAWN	MATERIAL	Q.TY	SCALE

THIRD ANGLE PROJECTION	TITLE: NAP-66A	DATE: DEC,25,1993	DRG.NO. G-01-04-143
		NEOTO & CO.,LTD.	