

TECHNICAL INFORMATION SHEET

NCP-170S-6 Catalytic Gas Sensor, For Flammable (Explosive) Gases

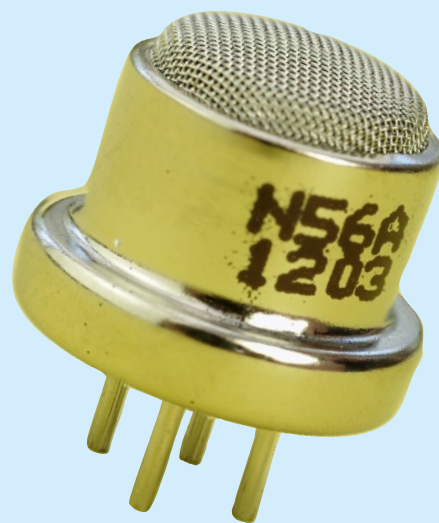
**Nemoto Sensor
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JAPAN

General Description

The Nemoto NCP-170S-6 is a catalytic (pellistor) type flammable gas sensor supplied as a matched pair of pellistor elements mounted on a single header and protected by a metal mesh enclosure and can.

The sensor detects and measures the presence of flammable gases and vapours in air, in the range 0-100% of the Lower Explosive Limit (LEL) of the gas or vapour being measured. Designed as a lower cost alternative to the twin-header NCP-170 device, the NCP-170S-6 may be used as the sensing platform in fixed flammable gas detection systems.

The NCP-170S-6 exhibits excellent long term zero and sensitivity stability and a high level of resistance to catalytic poisons. The highly automated manufacturing procedure employed by Nemoto results in a repeatable and reliable sensor which, unlike similar devices, requires no trimming resistor to enable the detector to be matched with a compensator.



- **Monitors flammability directly**
- **Unaffected by humidity**
- **Very low long term drift**
- **Poison resistant**
- **Single header design**
- **Superb temperature stability**
- **Shock Resistant**
- **Linear output to 50% LEL**

Specifications:

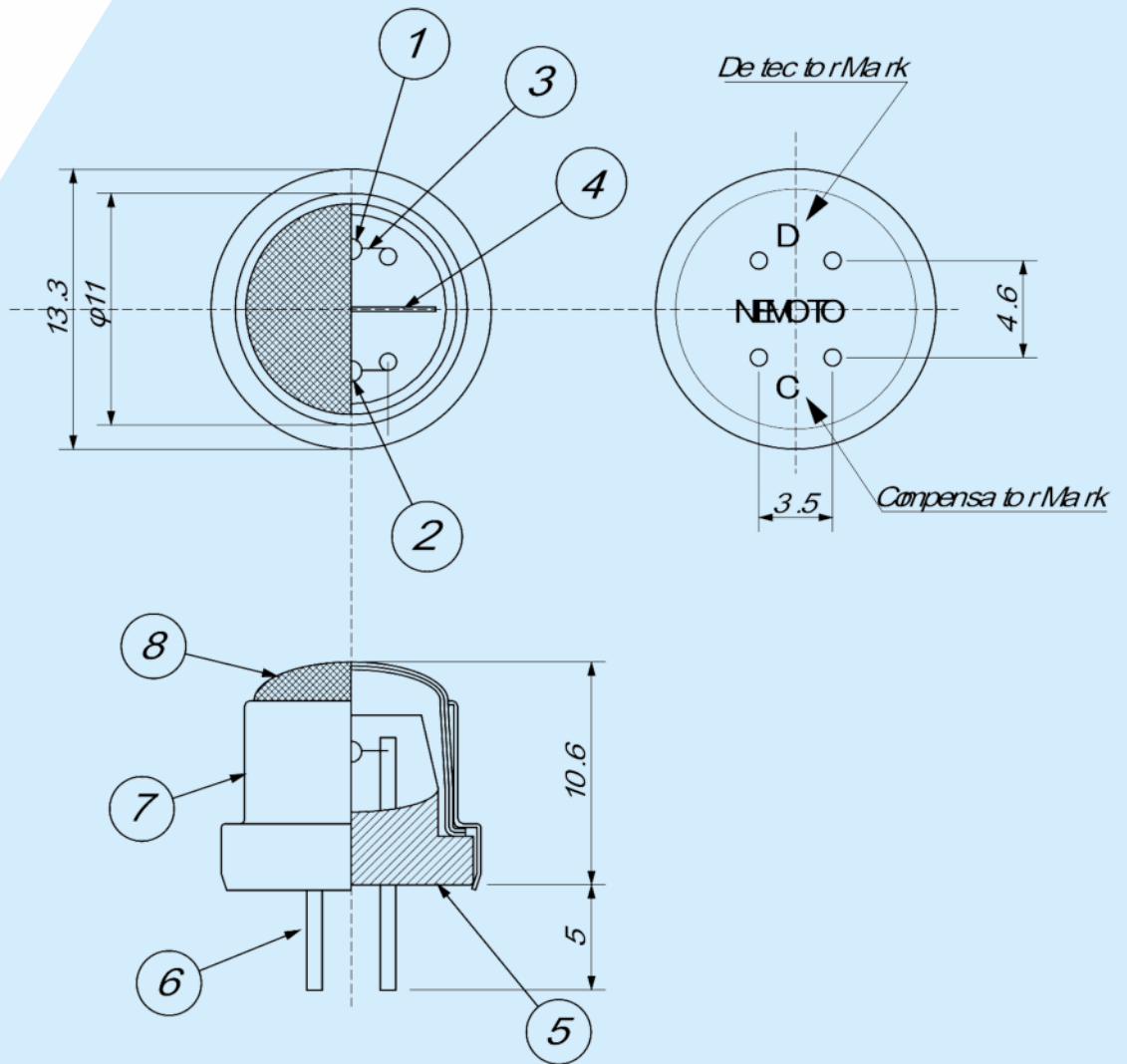
Detectable Gas	All Flammable Gases
Recommended Voltage:	2.0V +/- 0.1V
Current Drawn:	175 +/- 15mA
Zero Offset:	0mV +/- 30mV
Signal Sensitivity:	45 mV for 1% CH ₄
Range:	0-60% LEL
Repeatability:	+/- 1% LEL
Maximum Long Term Drift:	
Span:	< +/- 1% Signal / month
Zero:	< +/- mV / month
Response Time:	T ₉₀ : <10 sec
Temperature Range:	-20°C to +60°C
Humidity:	0-95%RH, non-condensing
Linearity:	Effectively Linear to 60%LEL
Expected Lifetime	5 years, depending on application

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 and Materials



8 Mesh	SUS316#100	Double
7 Strainer	Brass with Ni coating	$t=0.2$
6 Pin	Ni	$\phi 0.8$
5 Base mount	Phenol	—
4 Separator	SUS304	$t=0.2$
3 Coil	Pt	$\phi 0.03$
2 Compensator	—	—
1 Detector	—	—
No Parts	Materials	Remarks

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