



# TECHNICAL INFORMATION SHEET

## NCP-180S Pellistor Gas Sensor

**Nemoto Sensor  
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JAPAN

### General Description

The Nemoto NCP-180S 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 0-60%\* of the Lower Explosive Limit (LEL) of the gas or vapour being measured. Designed as a lower cost alternative to the twin-header NCP-180 device, the NCP-180S may be used as the sensing platform in fixed flammable gas detection systems.

The NCP-180S 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 reliable sensor which, unlike similar devices, requires no trimming resistor to enable the detector to be matched with a compensator.



### Specifications:

Recommended Voltage:	2.5V +/- 0.1V
Current Drawn:	170 +/- 20mA
Zero Offset:	0mV +/- 30mV
Minimum Signal Sensitivity:	60mV/% CH4/Air
Range:	0-60% LEL*
Accuracy:	+/- 1%LEL(CH4)

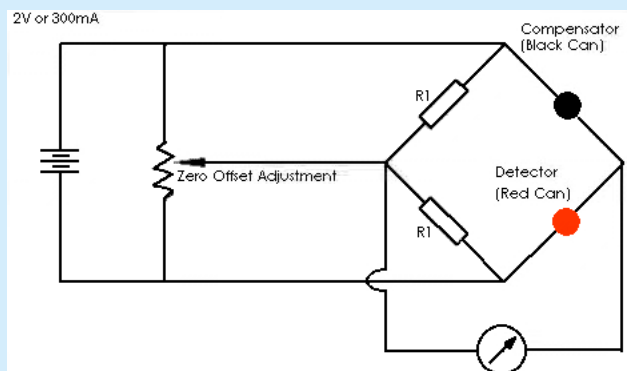
### Maximum Long Term Drift:

Span:	< +/- 2% Signal / Month
Zero:	< +/- 1/2 mV/Month
Response Time:	T50: 3 sec    T90: 8 sec
Temperature Range:	-20°C to +60°C
Temperature Drift:	(-20°C to +60°C): < +/- 2%LEL
Humidity:	0-100%RH, non-condensing
Humidity Response:	+/- 2%LEL
Linearity:	Effectively Linear to 60% LEL *

\*Note: The linearity / range of the sensor can be extended to 0-100% LEL with careful design of the instrument. Consult Nemoto if this is required.

### Recommended Circuit:

Note: The value R1 is arbitrary, since the function of R1 is to balance the bridge. 1K is suggested.



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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### Contact Information:

Europe & Africa Area

Asia Area

Americas Area

### Website

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[nasensor@nemoto.co.jp](mailto:nasensor@nemoto.co.jp)

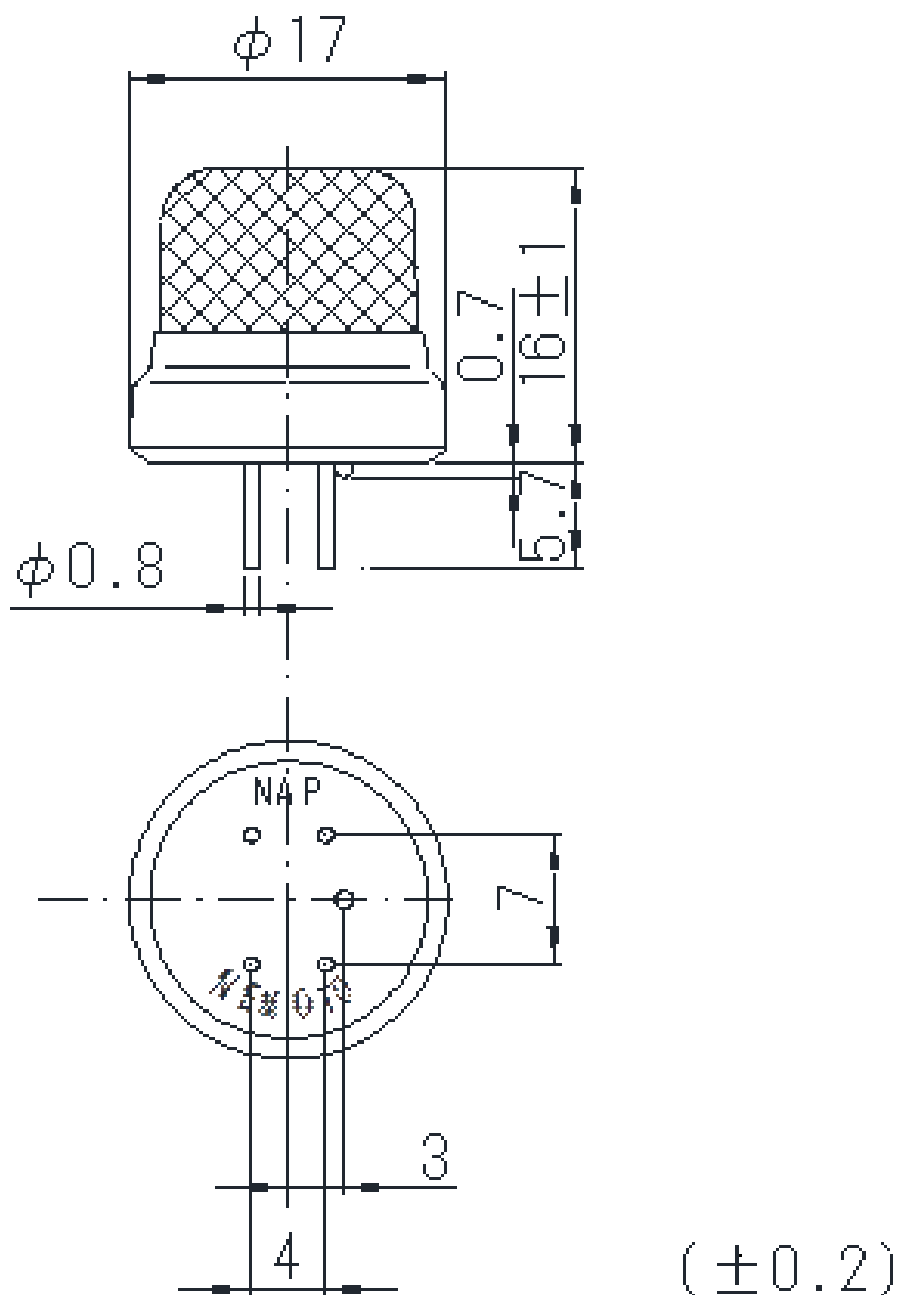
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## Dimensions



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