



TECHNICAL INFORMATION SHEET NCP-180S Pellistor Gas Sensor

Nemoto & Co., Ltd.
Sensor Division
4-10-9, Takaido-higashi,
Suginami-ku, Tokyo,
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:

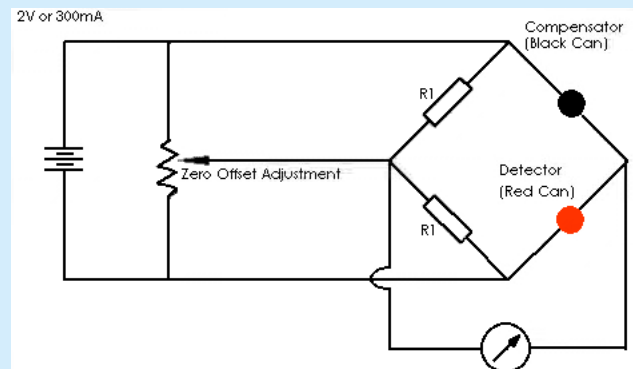
Recommended Voltage:	2.5V +/- 0.1V
Current Drawn:	170 +/- 20mA
Zero Offset:	0mV +/- 30mV
Minimum Signal Sensitivity:	60mV/% CH4/Air
Range:	0-60% LEL*
Accuracy:	+/- 1%LEL(CH4)
Maximum Long Term Drift:	
Span:	< +/- 2% Signal / Month
Zero:	< +/- 1/2 mV/Month
Response Time:	T50: 3 sec T90: 8 sec
Temperature 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.

Test data on drift, poisoning, temperature performance, linearity are available on the Characterisation Document.

Recommended Circuit:

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



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

www.nemoto.eu

www.nemoto.co.jp

www.nemoto.eu

email

eusensor@nemoto.co.jp

sensor2@nemoto.co.jp

nasensor@nemoto.co.jp

Telephone

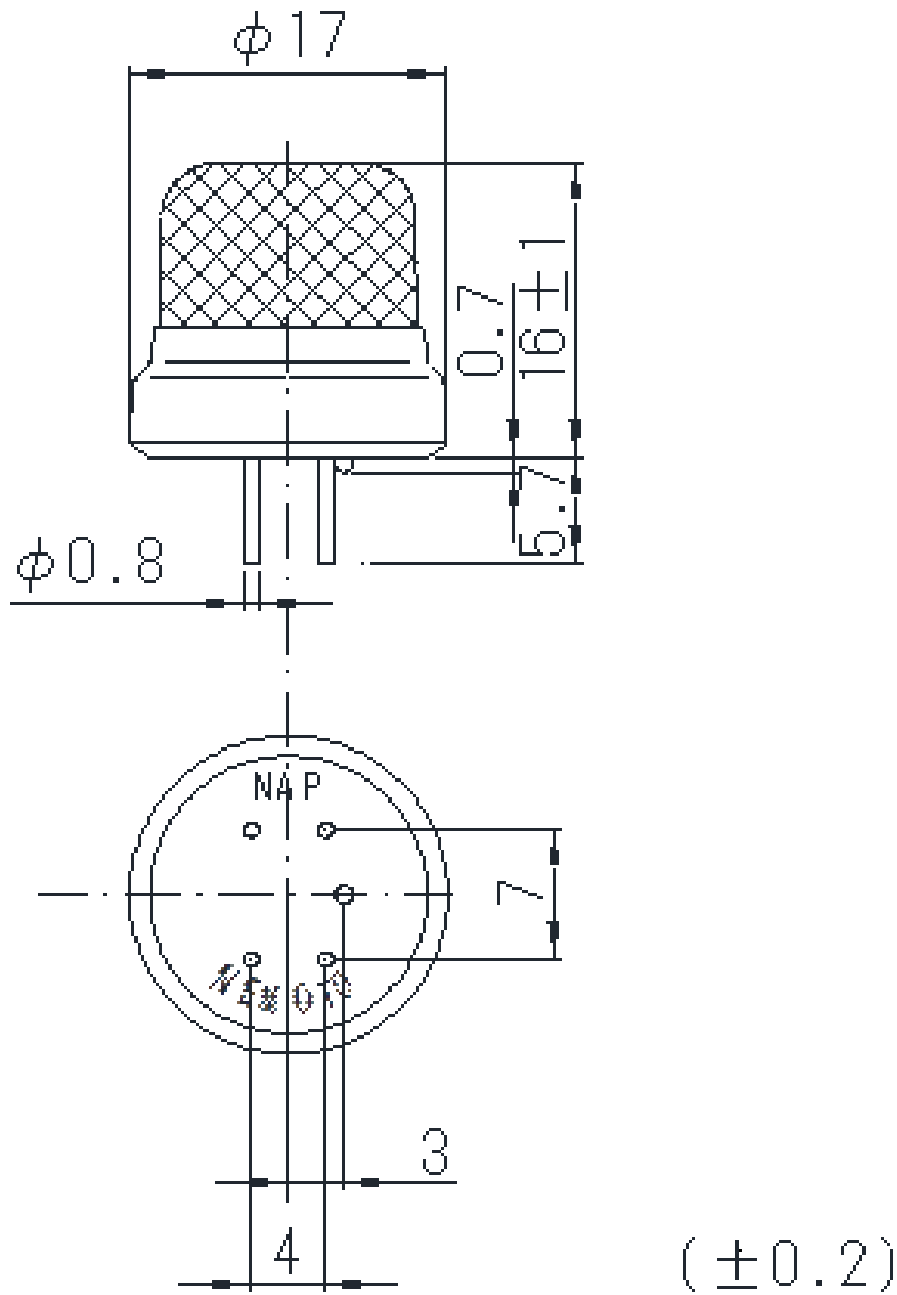
+44 (0)1799 543968

+81 3 3333 2760

+1 604 761 7363



Dimensions



Test data on drift, poisoning, temperature performance, linearity are available on the Characterisation Document.

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Contact Information:

Website

email

Telephone

Europe & Africa Area

www.nemoto.eu

eusensor@nemoto.co.jp

+44 (0)1799 543968

Asia Area

www.nemoto.co.jp

sensor2@nemoto.co.jp

+81 3 3333 2760

Americas Area

www.nemoto.eu

nasensor@nemoto.co.jp

+1 604 761 7363