



# TECHNICAL INFORMATION SHEET

## NCP-180 Pellistor Gas Sensor

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### General Description

The Nemoto NCP-180 is a catalytic (pellistor) type flammable gas sensor supplied as a matched pair of elements mounted on TO4 size headers and protected by a metal 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 sensing platform for use in fixed flammable gas detection systems, the NCP-180 exhibits excellent long term zero and sensitivity stability and a high level of resistance to catalytic poisons. The device is compatible with a wide range of commercially available Gas Detection Systems and remote flammable gas detection heads.

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:

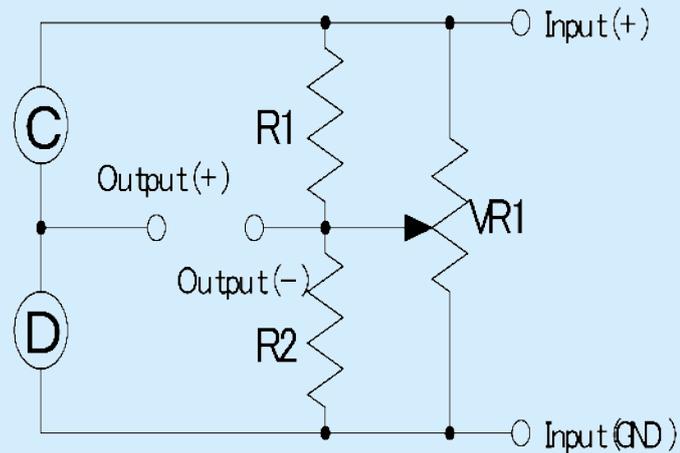
Recommended Voltage:	2.6V +/- 0.1V
Current Drawn:	175 +/- 15mA
Zero Offset:	0mV +/- 25mV
Minimum Sensitivity:	20mV/% CH4/Air
Range:	0-100% LEL
Accuracy:	+/- 1%LEL(CH4)

### Maximum Long Term Drift:

Span:	< +/- 1% Signal/Month
Zero:	< +/- 1/2 mV/Month
Response Time:	T50: 3 sec    T90: 8 sec
Temperature Range:	-20°C to +70°C
Temperature Drift (zero):	(-20°C to +70°C): < +/- 5% LEL
Humidity:	0-100%RH, non-condensing
Humidity Response:	+/- 1%LEL
Linearity:	Effectively Linear to 100%LEL

### Recommended Circuit:

Note: The Function of R1 and R2 are to balance the bridge and so are largely arbitrary, but 200  $\Omega$  is recommended. The value of VR1 is recommended to be 3 K $\Omega$ , but may be varied according to the zero calibration window required.



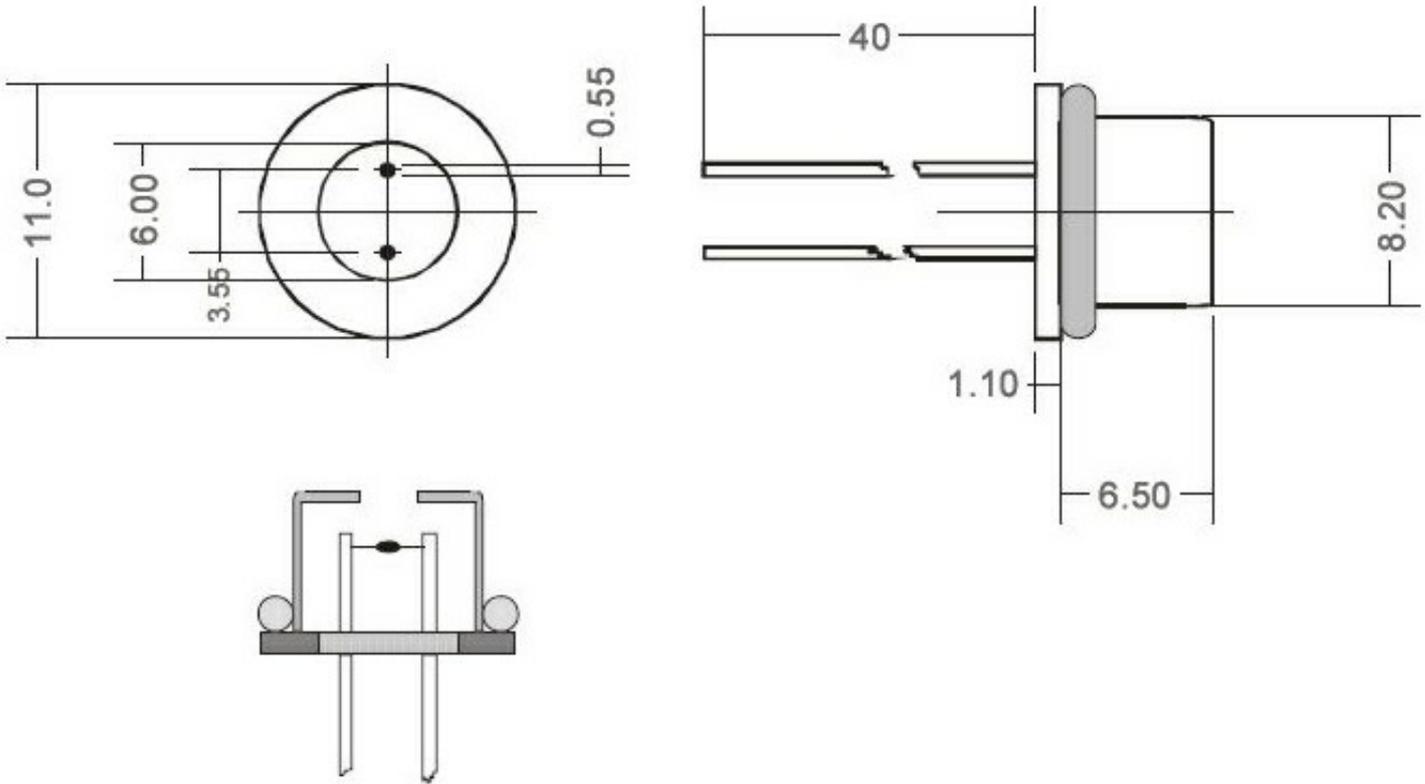
Test data on drift, poisoning, temperature performance, linearity are available on the Characterisation Document.

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:**



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