



# TECHNICAL INFORMATION SHEET

## NCP-180-A Special Pellistor Gas Sensor

### For the Detection of Acetylene

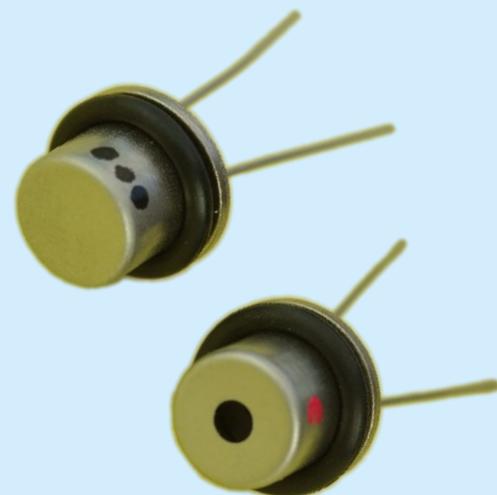
**Nemoto Sensor Engineering Co., Ltd.**  
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**JAPAN**

#### General Description

The Nemoto NCP-180-A is a special application 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 is specifically designed for the detection of Acetylene in air in the range 0-100% LEL.

Until now, the use of pellistors to monitor Acetylene levels has presented technical problems due to Acetylene's ability to poison catalytic gas sensors, resulting in short sensor lifetimes in the field. The NCP-180-A pellistor, however, cannot be poisoned by Acetylene, and will operate reliably in this application. The NCP-180-A should not be used for any other purpose without first consulting Nemoto.



The device is compatible with a wide range of commercially available Gas Detection Systems and remote flammable gas detection heads.

#### Specifications:

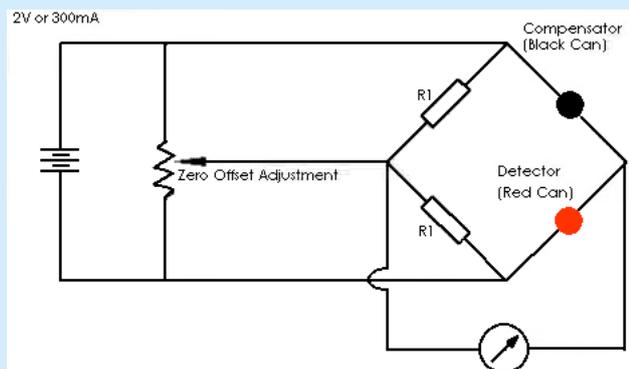
Recommended Voltage:	2.0V +/- 0.1V
Current Drawn:	145 +/- 15mA
Zero Offset:	0mV +/- 25mV
Minimum Sensitivity:	8mV / 10% LEL Acetylene in Air
Range:	0-100% LEL
Accuracy:	+/- 1%LEL(CH4)

#### Maximum Long Term Drift:

Span:	< +/- 1% Signal/Month
Zero:	< +/- 1/2 % LEL/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:	+/- 1%LEL
Linearity:	Effectively Linear to 100%LEL

#### Recommended Circuit:

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

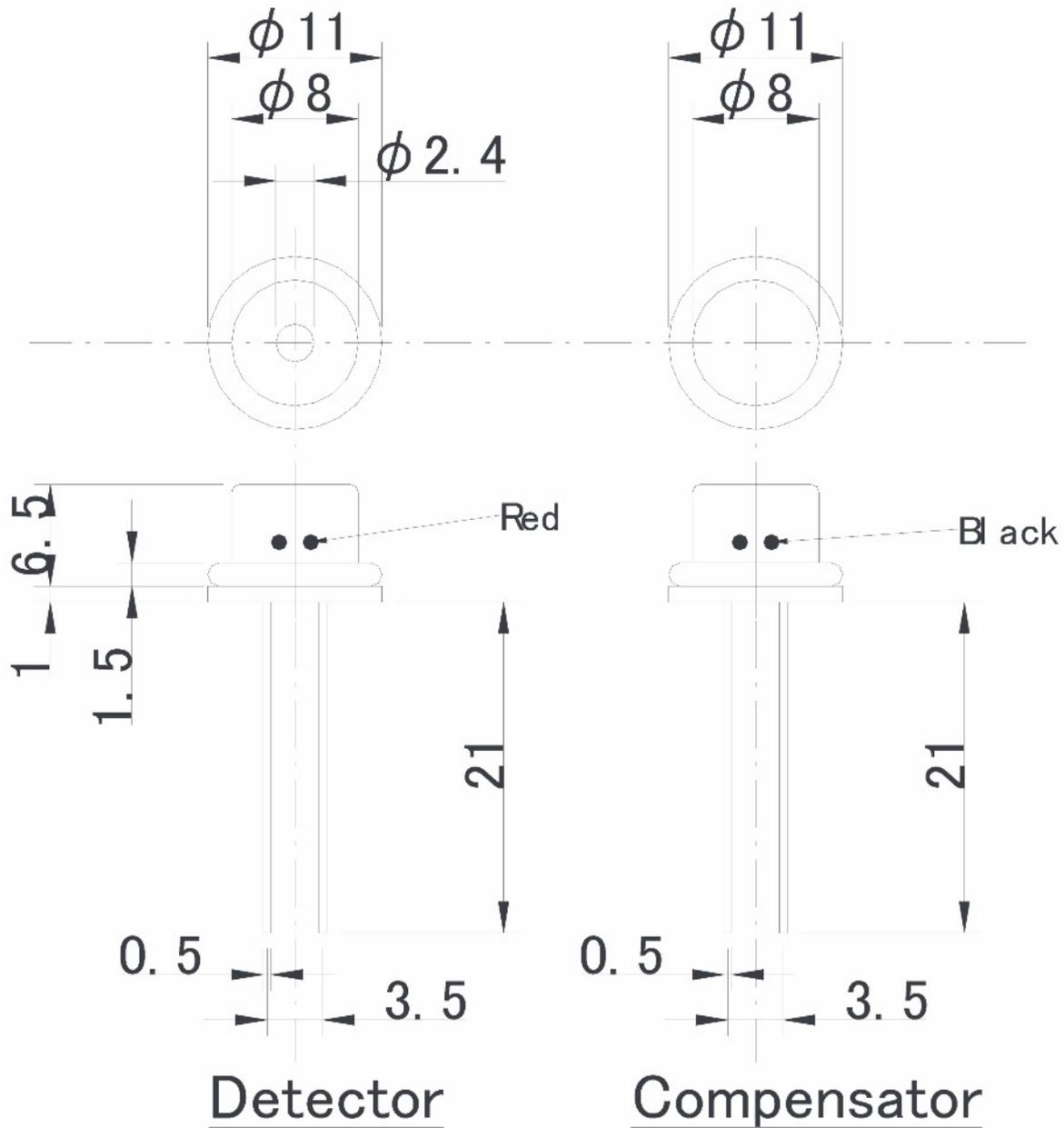


Test data on drift, poisoning, temperature performance, linearity are available on the Characterisation Document.

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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## Drawing and Dimensions



(  $\pm 0.2$  )

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