



nemototech

TECHNICAL INFORMATION SHEET: NEMOTO NP-AC (Acetylene) Pellistor Gas Sensor



General Description

The Nemoto NP-AC 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 is specifically designed for the detection of **Acetylene** in air in the range 0-100% LEL.

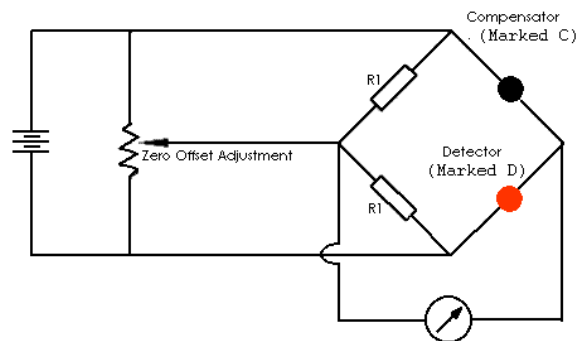
Until now, the use of pellistors to monitor Acetylene levels has presented technical problems due to Acetylene's ability to poison catalytic gas sensors, resulting in short sensor lifetimes in the field. The NP-AC pellistor, however, cannot be poisoned by Acetylene, and will operate reliably in this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

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:	145-160mA
Zero Offset:	0mV +/- 25mV
Sensitivity:	8-14mV at 10% LEL
Range:	0-100% LEL Acetylene
Repeatability:	
Daily	+/-3%LEL
Monthly	+/-5%LEL
Maximum Long Term Drift:	
Span:	< +/- 1% LEL/Month
Zero:	< +/- 1/2 mV/Month
Response Time:	T ₅₀ : 3 sec T ₉₀ : 8 sec

Recommended Circuit:



Note: The value R1 is arbitrary, since the function of R1 is to balance the bridge. 200Ω -1KΩ is suggested.

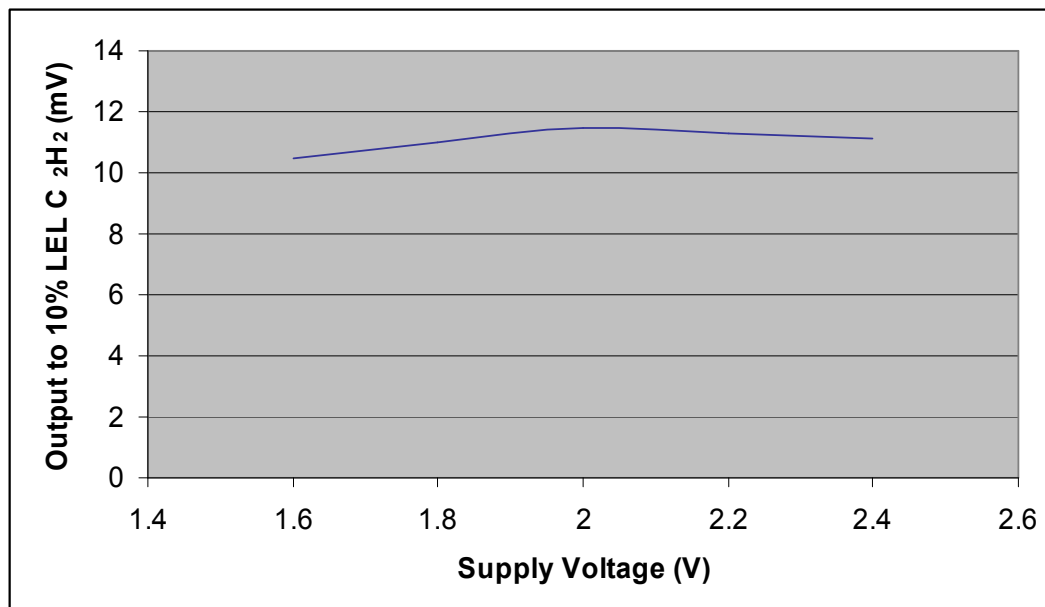
Temperature Range:	-20°C to +50°C
Temperature Drift:	(-20°C to +70°C)
Zero:	< +/- 5%LEL
Humidity:	0-95%RH, non-condensing
Linearity:	Effectively linear to 50%LEL C ₂ H ₂

Nemototech 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

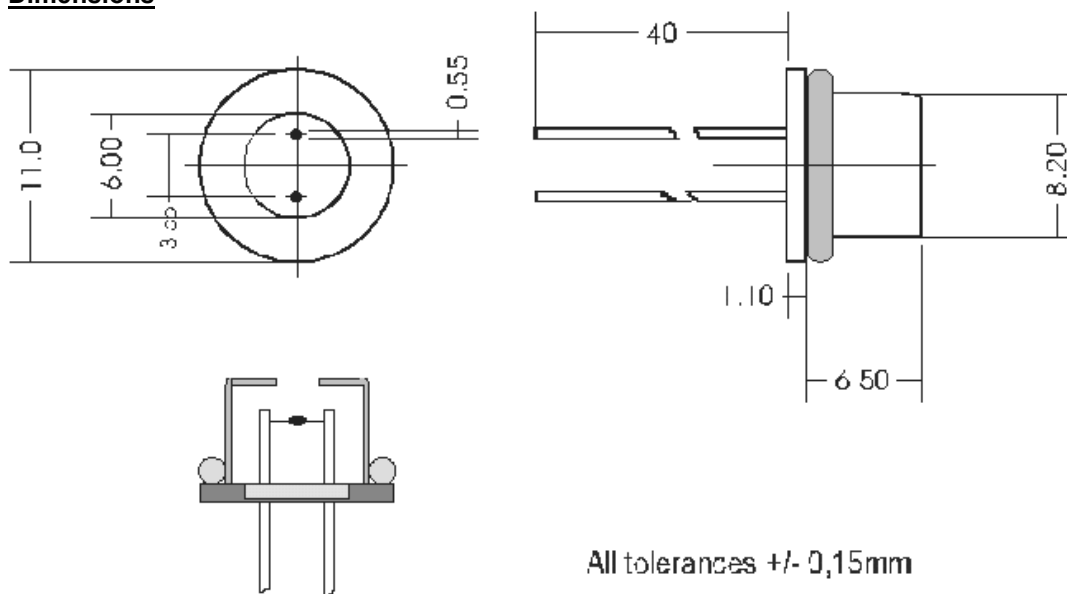
ds-NPAC.doc, issue 2, May 2008



Supply Voltage Dependence



Dimensions



All tolerances +/- 0,15mm

N.E.T. s.r.l.	
NP-AC Gas Sensor	Rev. D
All Dimensions in mm:	

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