TECHNICAL INFORMATION SHEET
NE4-H2S-100 Electrochemical Hydrogen Sulphide Gas Sensor

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

General Description

The NE4-H2S-100 is an Electrochemical gas sensor with 3 electrodes for the detection of Hydrogen Sulphide (H_2S) in a variety of gas detection applications.

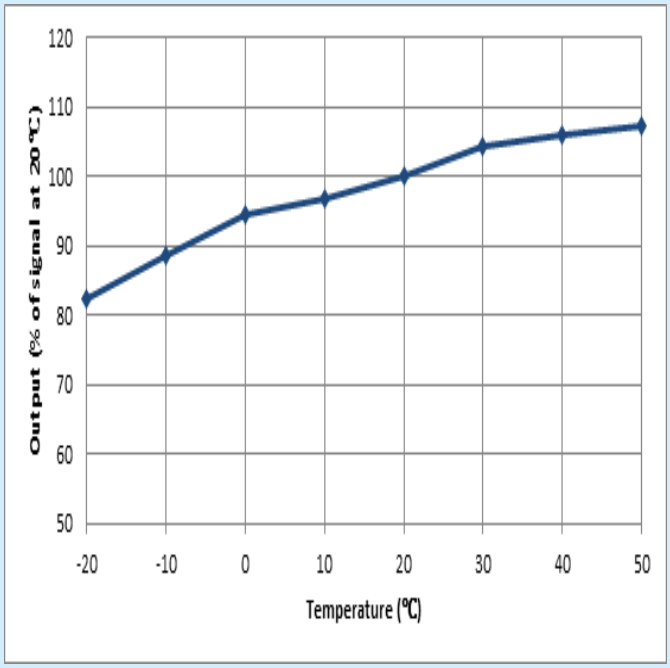
Exhibiting high performance with long term stability, this compact (20.4mm dia) sensor is suitable for portable Gas Detection Instruments or Fixed Gas Detection heads.

Nemoto's porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.

Specifications:

Detectable Gas	Hydrogen Sulphide (H_2S)
Detection Range	0-100ppm
Maximum overload	500ppm
Output Current	700 +/- 150 nA/ppm
Reproducibility (same day)	+/- 2%
Zero in clean air	<+/- 0.3ppm equivalent
Long term drift:	
Zero	< +/- 0.1ppm / year
Span	<10% signal/ year
Response time ($T_{90\%}$)	< 30 seconds
Temperature drift (zero)	<1ppm (-20°C to +50°C)
Expected lifetime	> 2 years
Temperature Range:	-20°C to +50°C
Humidity range (constant)	15-90% RH
Humidity range (intermittent)	0-99% RH
Pressure	0.9 - 1.1 atm
Recommended load resistor	10 Ω
Storage time	6 months
(Without compromising lifetime)	

Temperature response



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

ne4-h2s-100.ppp, issue 5, Jan 2016

Contact Information:
Europe & Africa Area
Asia Area
Americas Area

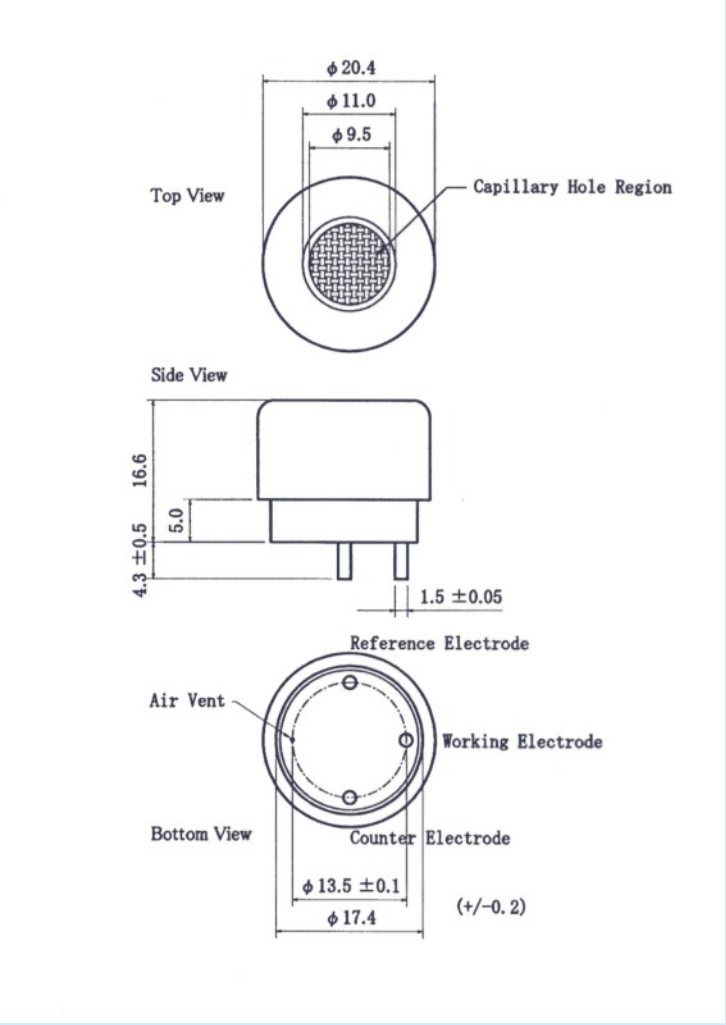
Website
www.nemoto.eu
www.nemoto.co.jp
www.nemoto.eu

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

NEMOTO

Dimensions:



Typical Cross-Sensitivities:

Gas	Test Gas Used (ppm in Air)	Test result (ppm equivalent)	% Cross-sensitivity
Hydrogen Sulphide	10	10	100
Carbon Monoxide	100	< 3	< 3
Hydrogen	1000	<10	< 1
Methane	5000	0	0
Carbon Dioxide	5000	0	0
Sulphur Dioxide	30	<6	< 20
Nitric Oxide	10	< 0.4	< 4
Nitrogen Dioxide	10	< -2	<-20
Ammonia	200	0	< 0
Ethylene	100	0	0
Chlorine	10	<-1	<-10

Test data on drift, temperature performance, linearity etc 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

ne4-h2s-100.ppp, issue 5 Jan 2016

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