



TECHNICAL INFORMATION SHEET

NE4-H2S-100 Electrochemical Hydrogen Sulphide Gas Sensor

Nemoto Sensor
Engineering Co., Ltd.
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 (H₂S) 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.

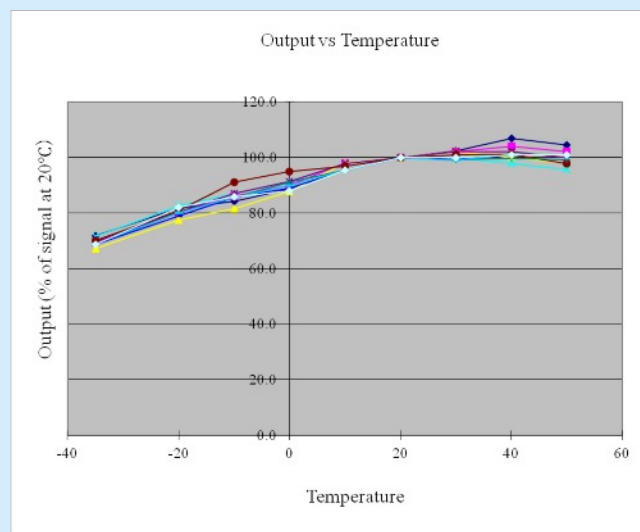
Nemoto's porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.



Specifications:

Detectable Gas	Hydrogen Sulphide (H ₂ S)
Detection Range	0-100ppm
Maximum overload	500ppm
Output Current	700 +/- 150 nA/ppm
Reproducibility (same day)	+/- 2%
Zero in clean air	<+/- 1ppm equivalent)
Output drift in air:	< 5% / 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
Bias voltage	Not required
Recommended storage temp	0°C to +20°C
Storage time	6 months
(Without compromising lifetime)	

Temperature response



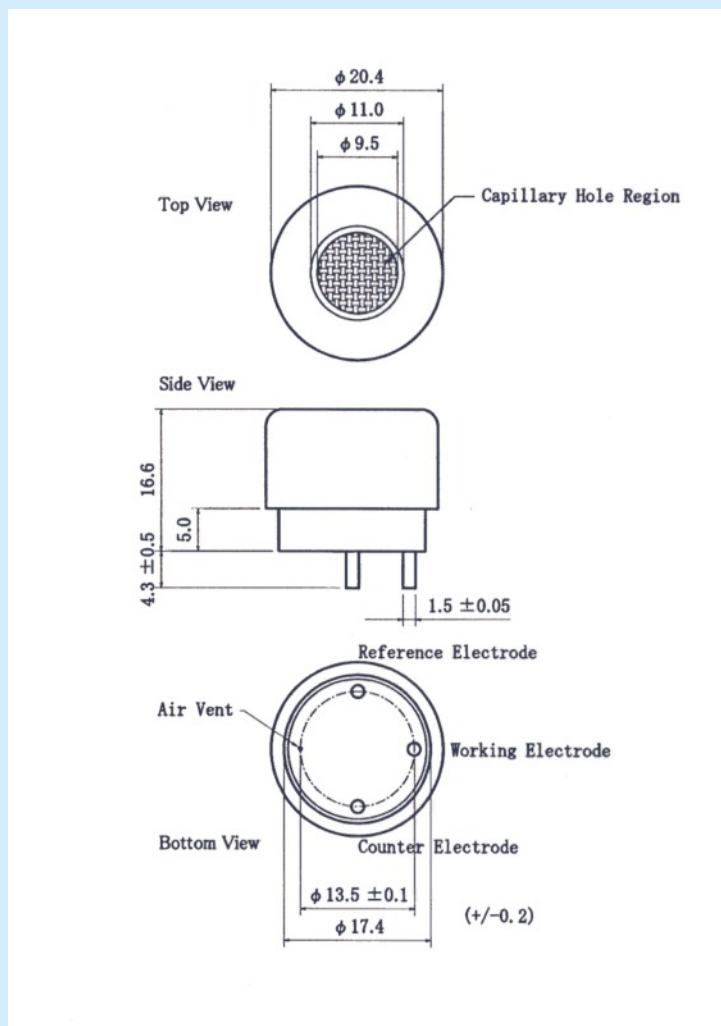
Test data on drift, poisoning, temperature performance, linearity are available on the Characterisation Document.

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 2, Dec 2012



Dimensions:



Typical Cross-Sensitivities:

Gas	Test Gas Used	H ₂ S Concentration Equivalent (ppm)	% Cross Sensitivity
Hydrogen Sulphide	10	10	100
Carbon monoxide	100	<3	<3%
Carbon dioxide	5000	0	0
Hydrogen	1000	-3 to +5	<1%
Sulphur dioxide	30	<6	<20%
Ethylene	100	-1 to +1	<1%
Chlorine	10	0	0%
Methane	5000	0	0
Nitric Oxide	10	<-0.5	<-5%
Nitrogen dioxide	10	<-3	<-30%
Ammonia	100	0	0
Ethanol	100	-4 to +2	<4%

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 2, Dec 2012

Nemoto (Europe) B.V.
Burgemeester Haspelslaan 53,
1181NB Amstelveen
The Netherlands

TEL: +31 20 670 3858
FAX: +31 20 670 2709
URL: <http://www.nemoto.eu>