



● NEMOTO SENSORTECH DIVISION
 ● NANO & CYBERTECH DIVISION



TECHNICAL INFORMATION SHEET: NEMOTO NT-H2S-3 Electrochemical Hydrogen Sulphide Sensor



Output current: 200 +/- 50 nA/ppm
 Reproducibility: +/- 2%
 Zero in clean air: < +/- 3ppm equivalent
 Output drift in air: < 5%/year

Response time (T_{90%}): < 20 seconds
 Temperature drift (zero): < 1ppm (-20 to +50°C)
 Expected lifetime*: > 2 years

Operating conditions:

Operating temperature: -20°C to + 50°C
 Humidity range (constant): 15-90% RH
 Humidity range (intermittent): 0-99% RH
 Pressure: 0.9 – 1.1 atm
 Recommended resistor: 10 ohms
 Bias voltage: Not required
 Recommended Storage temp: 0-20°C
 Storage time: 6 months
 (without compromising lifetime)

General Description

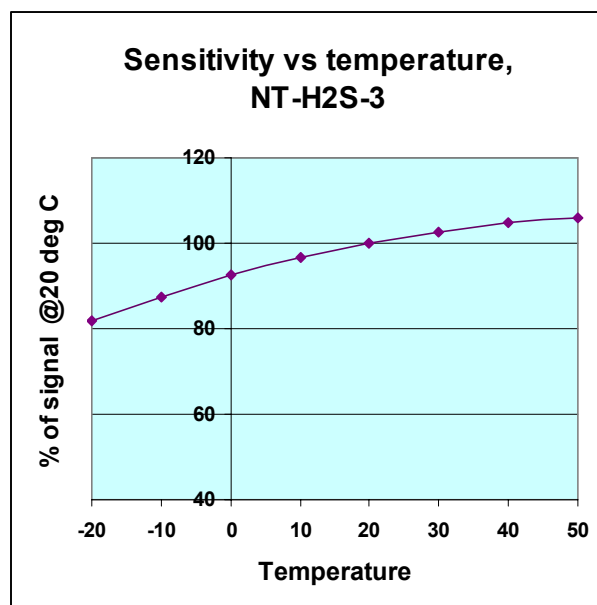
The NT-H2S-2 is a new electrochemical gas sensor with 3 electrodes for the detection of Hydrogen Sulphide (H₂S) in a variety of gas detection applications. Exhibiting high performance with long-term stability, this compact (20.4mm dia) sensor is suitable for portable Gas Detection Instruments or Fixed Gas Detection heads.

The NT-H2S-2 is designed to complement the mainstream NT-H2S-1 sensors, for use in more specialised applications, where a higher range of 0-500ppm is required.

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 NT-H2S-2

Detectable gas: Hydrogen Sulphide
 Detection range: 0 – 500 ppm
 Maximum range (short periods): 2000 ppm



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.

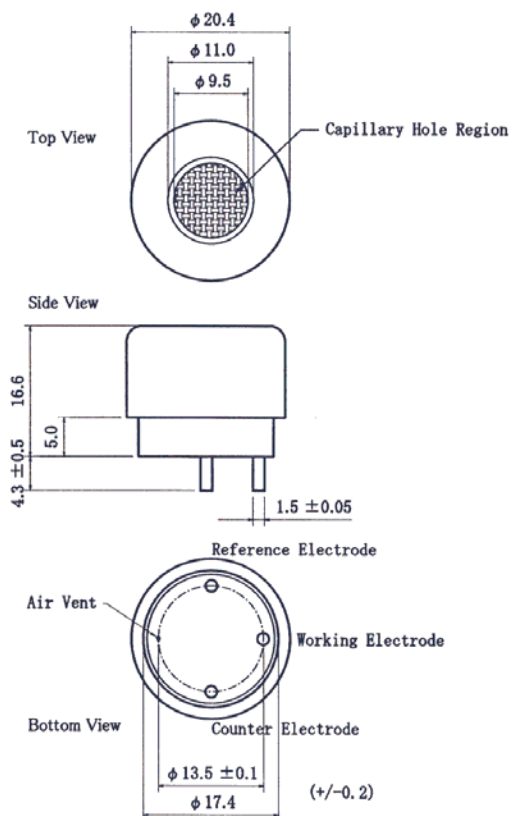
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Typical Cross-Sensitivities:

Gas	Test Gas Used (ppm)	H2S Concentration Equivalent (ppm)	% Cross Sensitivity
Hydrogen Sulphide	10	10	100
Carbon monoxide	100	<5	<5%
Carbon dioxide	5000	0	0
Hydrogen	1000	-7 to +15	<1.5%
Sulphur dioxide	30	<7	<25%
Ethylene	100	-0.3 to +2	<2%
Chlorine	10	0	0%
Methane	5000	0	0
Nitric Oxide	10	<-0.3	<-3%
Nitrogen dioxide	10	<-3	<-30%
Ammonia	100	0	0
Ethanol	100	-7 to +3	<-7%

Dimensions:



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