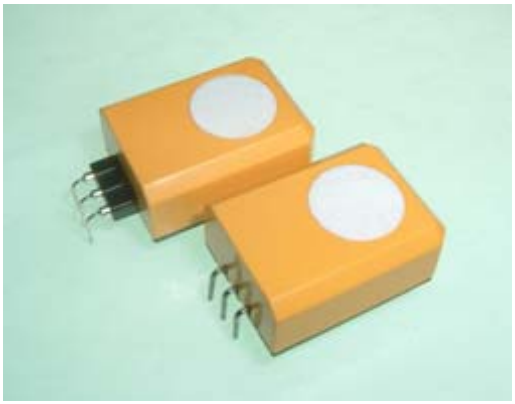
NEMOTO SENSORTECH DIVISION
NANO & CYBERTECH DIVISION

TECHNICAL INFORMATION SHEET:
NEMOTO NT-H2S-6D Electrochemical Hydrogen Sulphide Sensor



General Description

The NT-H2S-6D is a new generation electrochemical gas sensor with 3 electrodes for the detection of Hydrogen Sulphide (H_2S). Designed specifically for use in the latest disposable industrial gas alarms, the NT-H2S-6D combines cost effectiveness and high performance in a design conscious package.

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-6D

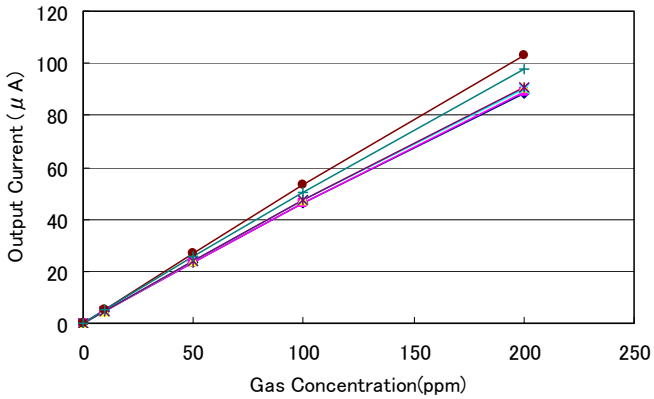
Detectable gas:	Hydrogen Sulphide
Detection range:	0 – 50 ppm
Maximum range (short periods)	200 ppm
Output current:	500 +/- 100 nA/ppm
Reproducibility:	+/- 2%
Zero in clean air:	<+/-1ppm equivalent
Output drift in air:	< 25%/year
Response time ($T_{90\%}$):	< 30 seconds
Temperature drift (zero)	<2ppm (-20to +50°C)
Operating lifetime*:	6-months

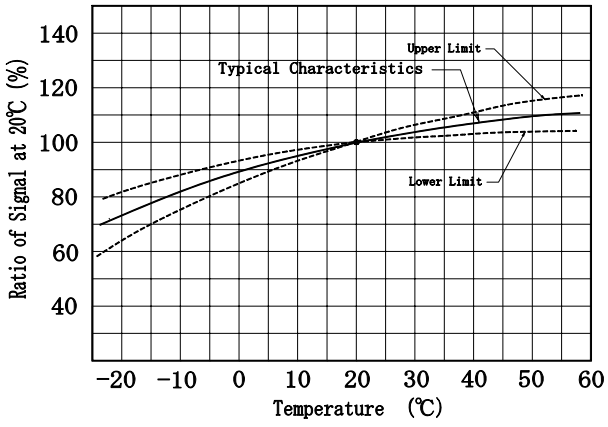
Operating conditions:

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)

Linearlity & Temperature Profile





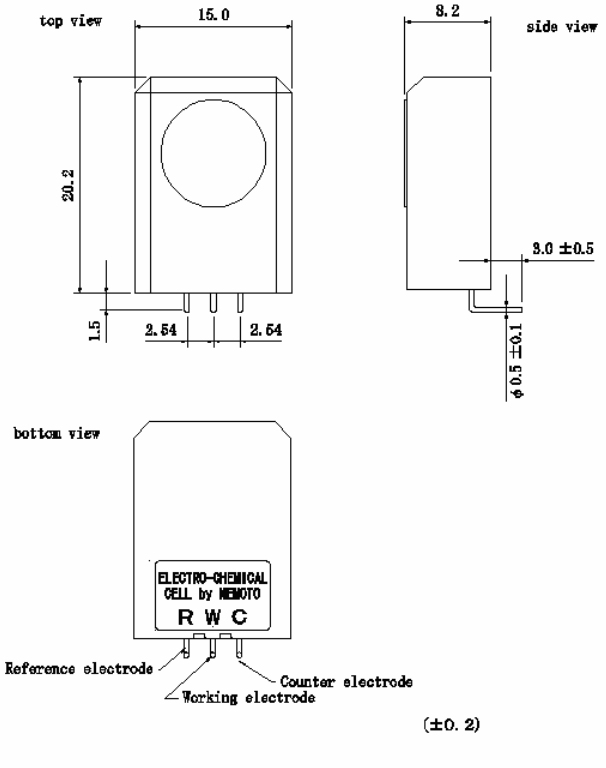
Head Office: **N.E.T.** Srl Via Legnano 2 – 20010 Cornaredo, Milan, ITALY
Tel: (+39) 02 935 44190 Fax: (+39) 02 935 40347
WEB: www.nemototech.com E-MAIL: info@nemototech.com

Typical Cross-Sensitivities:

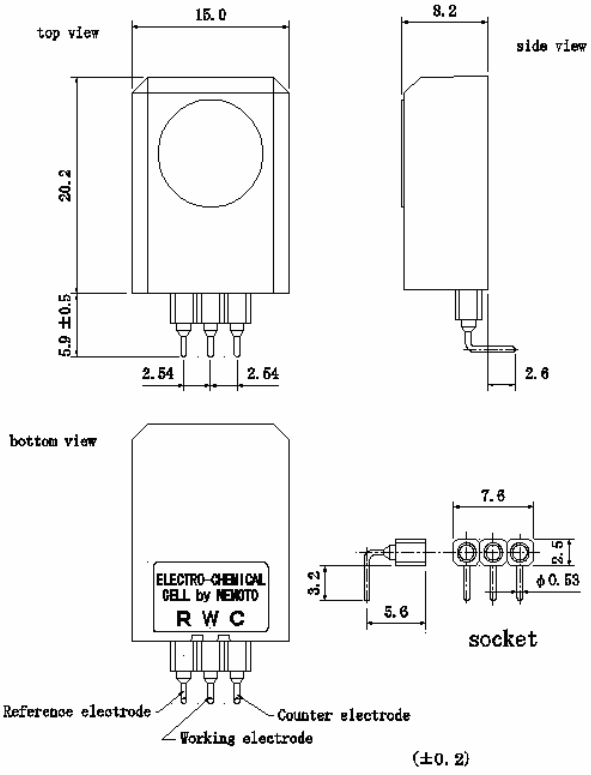
Gas	Test Gas Used (ppm)	H_2S Concentration Equivalent (ppm)	% Cross Sensitivity
Carbon monoxide	100	3	3
Hydrogen sulphide	10	10	100
Hydrogen	1000	<10	<1
Methane	5000	0	0
Carbon dioxide	5000	0	0
Sulphur dioxide	30	<3	<10
Nitric oxide	10	-1 to 0	better than -10%
Nitrogen dioxide	10	-2 to 0	better than -20%
Ethylene	1000	<3	<0.3
Ethanol	100	<2	<2
Iso-Butane	2500	0	0

Dimensions:

DIRECT SOLDERING MODEL
NT-HS-6DR



PCB SOCKET MODEL
NT-HS-6DRS



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