NEMOTO SENSORTECH DIVISION
NANO & CYBERTECH DIVISION

TECHNICAL INFORMATION SHEET:
NEMOTO NT-CO Electrochemical Carbon Monoxide Sensor

General Description

The NT-CO is a new electrochemical gas sensor with 3 electrodes for the detection of Carbon monoxide (CO) 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.

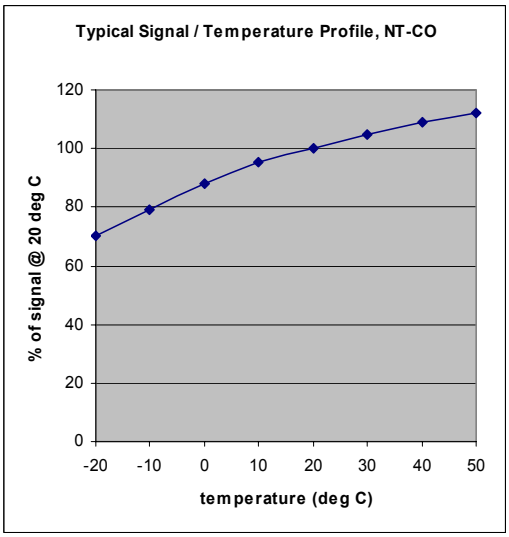
Nemoto's porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.

Specifications NT-CO

Detectable gas:	Carbon Monoxide
Detection range:	0 – 1000 ppm
Maximum range (short periods)	2000 ppm
Output current:	75 +/- 15 nA/ppm
Reproducibility:	+/- 2%
Zero in clean air:	<+/-5ppm equivalent
Output drift in air:	< 5%/year
Response time ($T_{90\%}$):	< 30 seconds
Temperature drift (zero)	<10ppm (-20to +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 (without compromising lifetime)	6 months



Further performance data and information on operating characteristics will be available in the Characterisation Document NTCO-CD

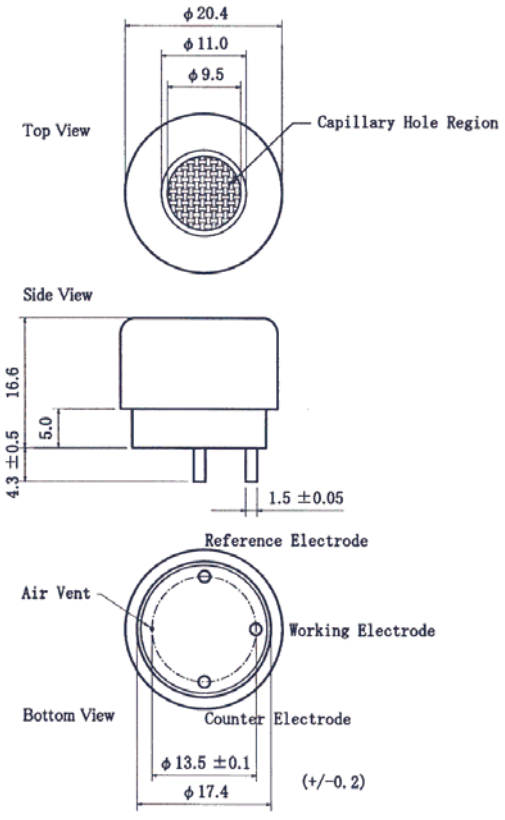
Nemoto has a policy of continuous development and improvement of its products. As such the specification for the device outlined in the data sheet may be changed without notice

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)	CO Concentration Equivalent (ppm)	% Cross Sensitivity
Carbon monoxide	100	100	100
Hydrogen sulphide	10	0	0
Hydrogen	1000	<400	<40
Methane	5000	0	0
Carbon dioxide	5000	0	0
Sulphur dioxide	25	0	0
Nitric oxide	30	<5	<16
Nitrogen dioxide	30	0	0
Ammonia	100	0	0
Ethyl Acetate	200	0	0
Ethanol	2000	<10	<0.5
Ethylene	100	<80	<80
Chlorine	1	0	0

Dimensions:



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