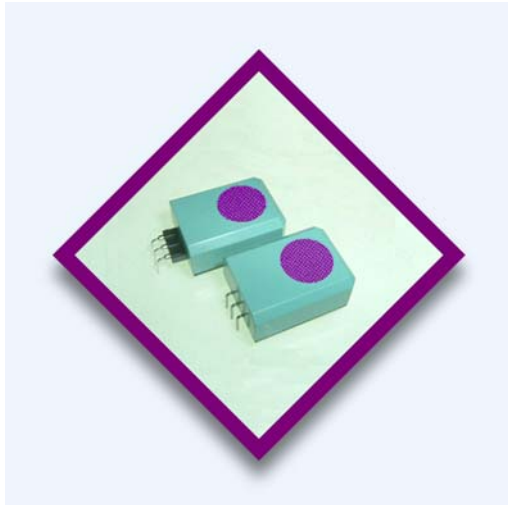




● NEMOTO SENSORTECH DIVISION  
● NANO & CYBERTECH DIVISION



## TECHNICAL INFORMATION SHEET: NEMOTO NT-CO-2F Electrochemical Carbon Monoxide Sensor



### 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)

### Linearity & Temperature Profiles:

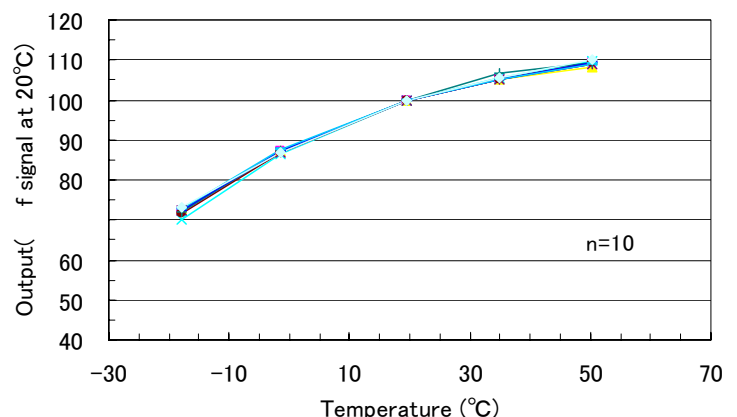
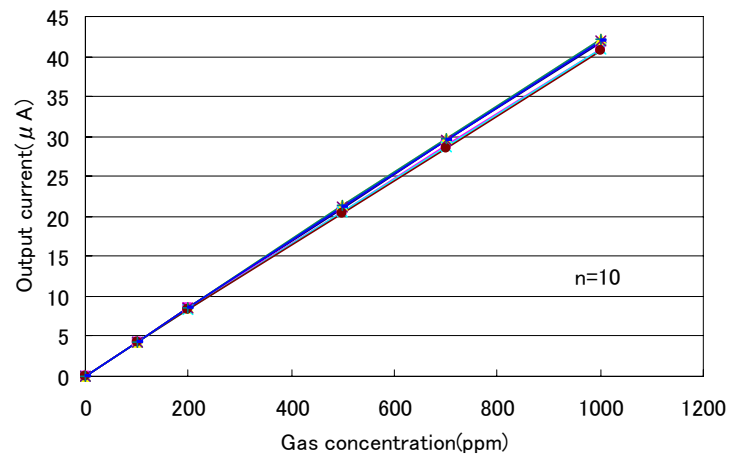
### General Description

The NT-CO-2F is a new generation electrochemical gas sensor with 3 electrodes for the detection of Carbon monoxide (CO). Designed specifically for use in the latest disposable industrial gas alarms, the NT-CO-2F 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-CO-2F

Detectable gas:	Carbon Monoxide
Detection range:	0 – 1000 ppm
Maximum range (short periods)	2000 ppm
Output current:	40 +/- 10 nA/ppm
Reproducibility:	+/- 2%
Zero in clean air:	< +/-5ppm equivalent
Output drift in air:	< 20%/year
Response time (T <sub>90%</sub> ):	< 30 seconds
Temperature drift (zero)	<10ppm (-20to +50°C)
Operating lifetime:	2 years



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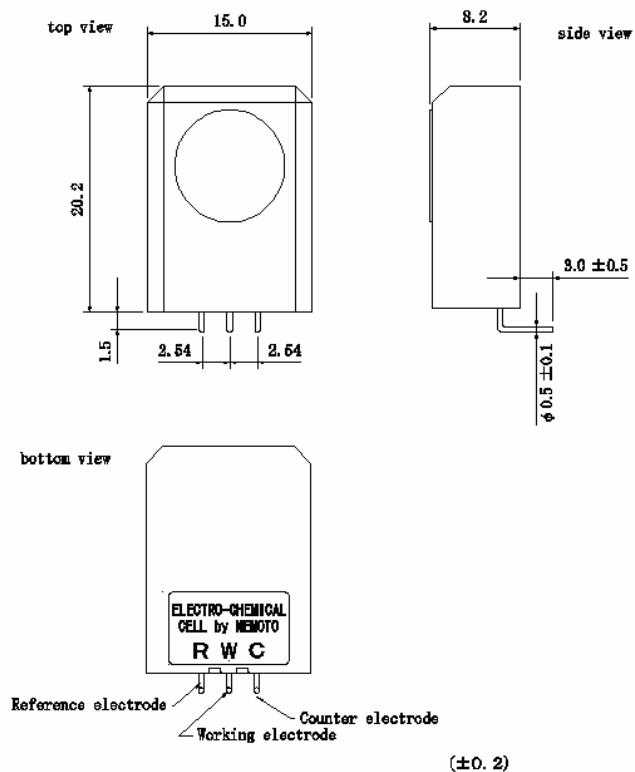


**Typical Cross-Sensitivities:**

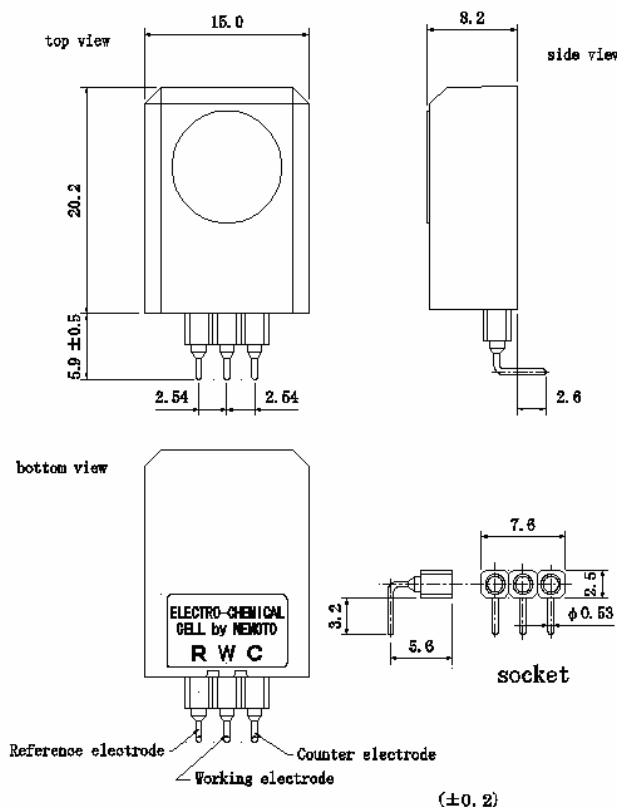
Gas	Test Gas Used (ppm)	CO Concentration Equivalent (ppm)	% Cross Sensitivity
Carbon monoxide	100	100	100
Hydrogen sulphide	10	0	0
Hydrogen	500	200	40
Methane	5000	0	0
Carbon dioxide	5000	0	0
Sulphur dioxide	25	0	0
Nitric oxide	30	0	0
Nitrogen dioxide	30	<10	<30
Ammonia	100	0	0
Ethyl Acetate	200	0	0
Iso-Butane	2500	0	0

**Dimensions:**

**DIRECT SOLDERING MODEL**



**PCB SOCKET MODEL**



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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