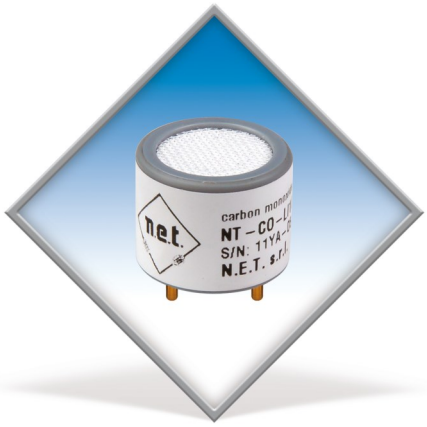
Nano Environmental Technology SIL2 The Reliable Alternative in Gas Sensing Elements

Safety Line
NT-CO-SLI1000
Electrochemical Carbon Monoxide Sensor

Description

The NT-CO-SLI 1000 is a new electrochemical gas sensor with 3 electrodes for the detection of Carbon monoxide (CO). Designed as a lower cost alternative to the NT-CO-SL 1000 sensor, for light industrial/ commercial application such as monitoring underground car parks. The NT-CO-SLI 1000 exhibits high performance with long-term stability in a very cost conscious package. The expected lifetime is more than 2 years. The sensor has industry accepted dimensions (Ø 20.4 mm) and pin-out footprint, making the sensor compatible with a variety of commercially available fixed gas detection systems and detection heads.



The 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.

Technical Specifications

Detectable Gas:	Carbon Monoxide
Detection Range:	0 – 1000 ppm
Maximum Overload:	2000 ppm
Output Signal:	60 ± 15 nA/ppm
Resolution:	<1 ppm typical
Repeatability:	± 2 %
Typical Baseline Range: (pure air)	< 2 ppm
Filter capacity	> 20000 ppm hours
Typical Response Time (t_{90}):	< 30 s
Long Term Output Drift:	< 5%/year
Expected Life Time:	> 2 years in air
Weight:	Approximately 4.5 g

Operating conditions

Operating Temperature:	-30 °C to + 50 °C
Operating Humidity:	15 to 90 % RH
Operating Pressure Range:	800 to 1200 mbar
Recommended Load Resistor:	10 Ω
Bias Voltage:	Not required
Recommended Storage Temp.:	0-20 °C
Storage Life:	< 6 months

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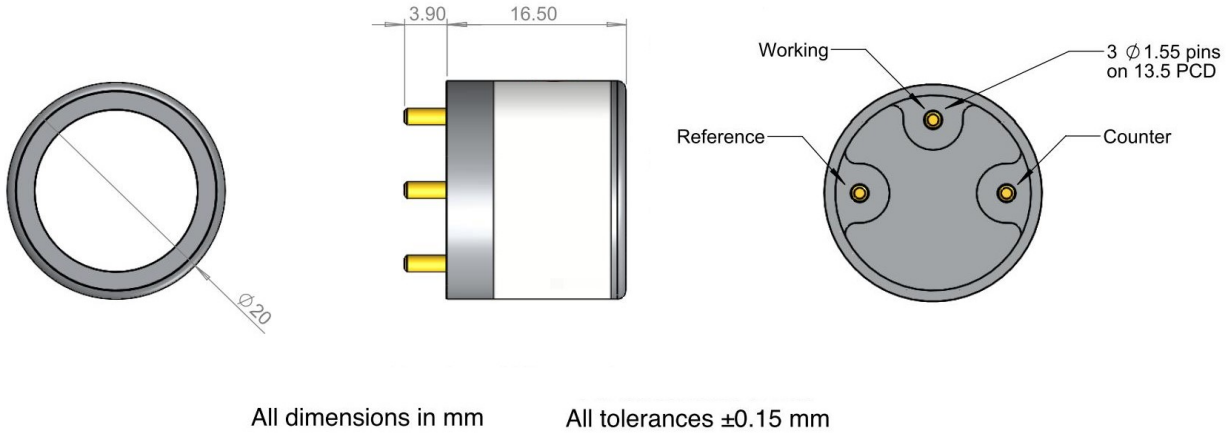
Typical cross sensitivities

Gas	Test Gas Concentration (ppm)	Typical CO Concentration Equivalent (ppm)
Carbon Monoxide	100	100
Hydrogen Sulfide	50	0
Sulphur Dioxide	20	0
Hydrogen	100	<35
Nitric Oxide	50	<10
Ethanol	200	<1
Ammonia	50	0
Chlorine	15	<1
Ethylene	100	96
Acetylene	100	90

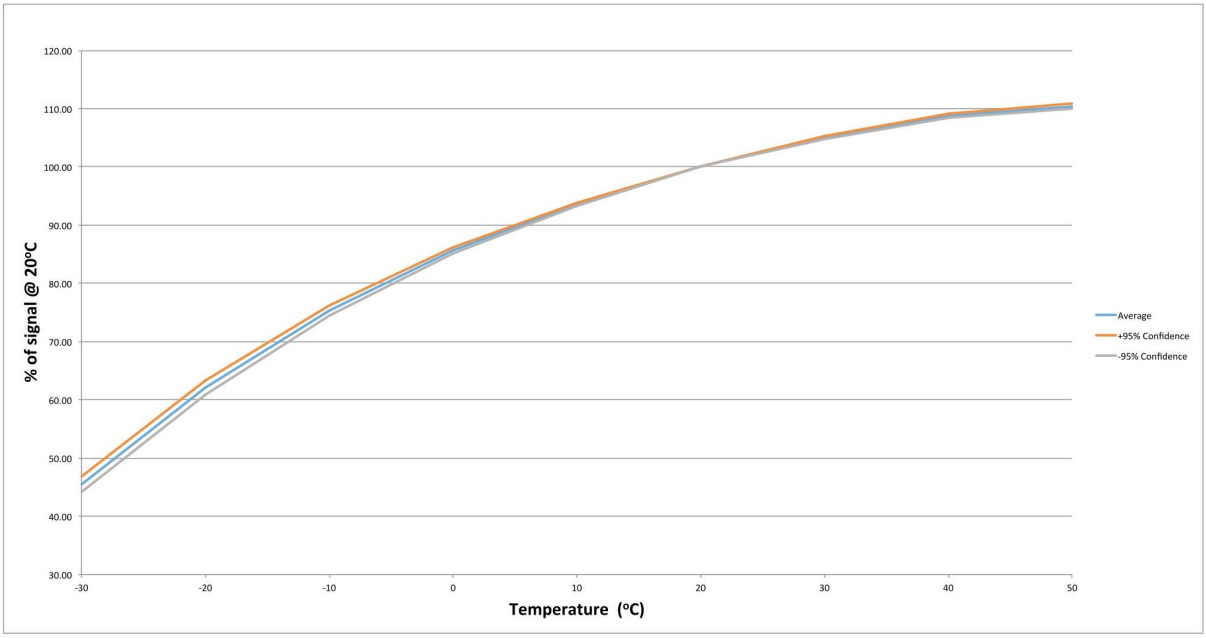
Important note: The values above are typical values and should not be used as a basis for cross calibration. Cross sensitivities may not be linear and should not be scaled either. Above data based on gassing for 5 minutes using test equipment. Should be noted some cross interference break through will occur if gas is applied for a longer period of time.

Dimensions

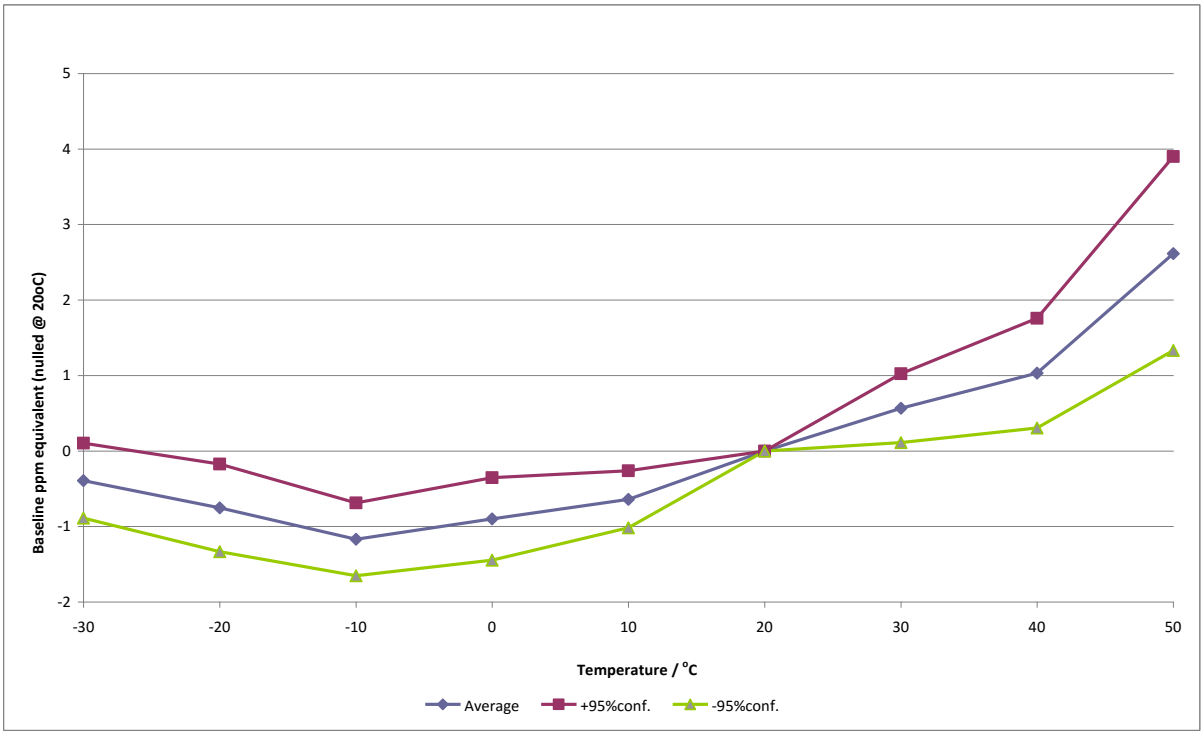


All dimensions in mm All tolerances ±0.15 mm

Temperature Dependency



Baseline vs. Temperature



N.E.T. 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.