Nano Environmental Technology SIL2 The Reliable Alternative in Gas Sensing Elements

Residential Line

NT-CO-F14

Electrochemical Carbon Monoxide Sensor

Description

The NT-CO-F14 is a new electrochemical gas sensor with 3 electrodes for the detection of Carbon monoxide (CO). Designed as a compact and low cost alternative to the standard 20mm sensors, it is targeted to light industrial and commercial applications such as monitoring underground car parks or residential environments, air quality, ventilation control and fire detection.

The NT-CO-F14 exhibits high performance with long-term stability in a very cost conscious package; fast response time, high stability and resistance to temperature and humidity extremes.

The expected lifetime is more than 7 years.

The sensor has industry accepted dimensions and pin-out footprint, making the sensor compatible with a variety of commercially available fixed gas detection systems.

Technical Specifications

Detectable Gas:	Carbon Monoxide
Detection Range:	0 – 1000 ppm
Maximum Overload:	2000 ppm
Output Signal:	50 ± 20 nA/ppm
Resolution:	<0.5 ppm typical
Repeatability:	± 2 %
Typical Baseline Range: (pure air)	< 5 ppm
Filter capacity	> 20000 ppm hours
Typical Response Time (t_{90}):	< 30 s
Long Term Output Drift:	< 5%/year
Expected Life Time:	> 7 years in air
Weight:	Approximately 4.5 g

Operating conditions

Operating Temperature:	-20 °C to + 50 °C
Operating Humidity:	15 to 90 % RH
Operating Pressure Range:	900 to 1100 mbar
Recommended Load Resistor:	10 Ω
Bias Voltage:	Not required
Recommended Storage Temp.:	0-20 °C
Storage Life:	< 6 months

UL Recognized Component in accordance with the requirements of UL2075

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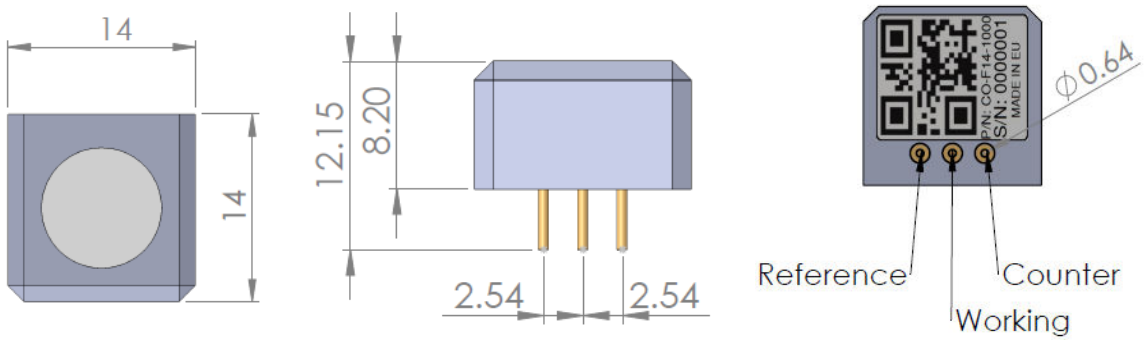
Typical cross sensitivities

Gas	Test Gas Concentration (ppm)	Typical CO Concentration Equivalent (ppm)
Carbon Monoxide	100	100
Hydrogen Sulfide	50	0
Sulphur Dioxide	20	0
Hydrogen	100	40
Nitric Oxide	50	0
Ethanol	200	<2
Ammonia	50	0
Chlorine	15	0
Ethylene	100	0

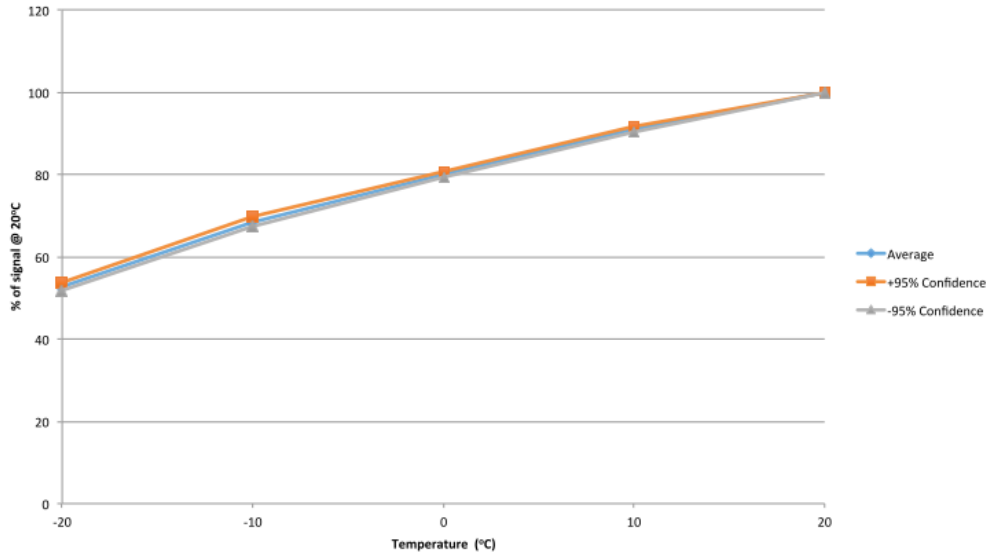
Important note: The values above are typical values and should not be used as a basis for cross calibration. Cross sensitivities may not be linear and should not be scaled either. Above data based on gassing for 5 minutes using test equipment. Should be noted some cross interference break through will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

Dimensions



All dimensions are in mm with a tolerance of +/- 0.15 mm unless stated otherwise

Temperature dependance



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