



20 twenty years
of advanced solutions for gas detection

Gas Sensing Elements
Proudly 100% Developed and Manufactured in Italy

NT-NO2-SLI30

Safety Line Electrochemical Nitrogen Dioxide Sensor

DS3564 rev.3 dated 07/07/2022



Key Features

The NT-NO2-SLI30 is a new electrochemical gas sensor with 3 electrodes for the detection of Nitrogen Dioxide (NO_2). Designed as a lower cost alternative to the NT-NO2-PL10 sensor, for light industrial/commercial application such as monitoring underground car parks.

The NT-NO2-SLI30 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 ($\varnothing 20.4$ 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.

NET Safety Line Electrochemical Cells

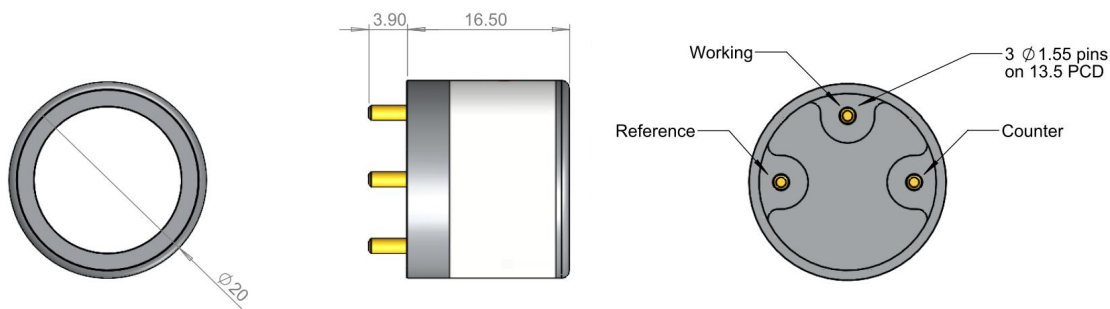
Our SAFETY LINE sensors are selected by N.E.T. and manufactured, on OEM basis, by the companies leading in the field, such as DD Scientific Ltd and Alphasense.

Extremely cost-effective, this sensor range includes solutions for Oxygen (O_2) depletion plus Carbon Monoxide (CO) and Nitrogen dioxide (NO_2) detection for light industrial,

residential or building automation applications along with car park ventilation according to EN 50545-1.

SLI1000 are tested and approved by TUV Rheinland (Certificate no. S 459 2014 C2) and are UL2075 recognized components.

Mechanical specifications



All dimensions in mm

All tolerances ± 0.15 mm

Product specifications

Technical Specifications	Detectable Gas	Nitrogen Dioxide
	Detection Range	0 – 30 ppm
	Maximum Overload	200 ppm
	Output Signal	600 ± 150 nA / ppm
	Typical Baseline Range (pure air)	±0.2 ppm NO2 equivalent
	Typical Response Time (t90)	< 30 s
	Long Term Output Drift	< 20%/year
	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 Temperature	0-20 °C
	Storage Life	< 6 months
	Expected Life Time	>2 years in air

Typical cross sensitivities

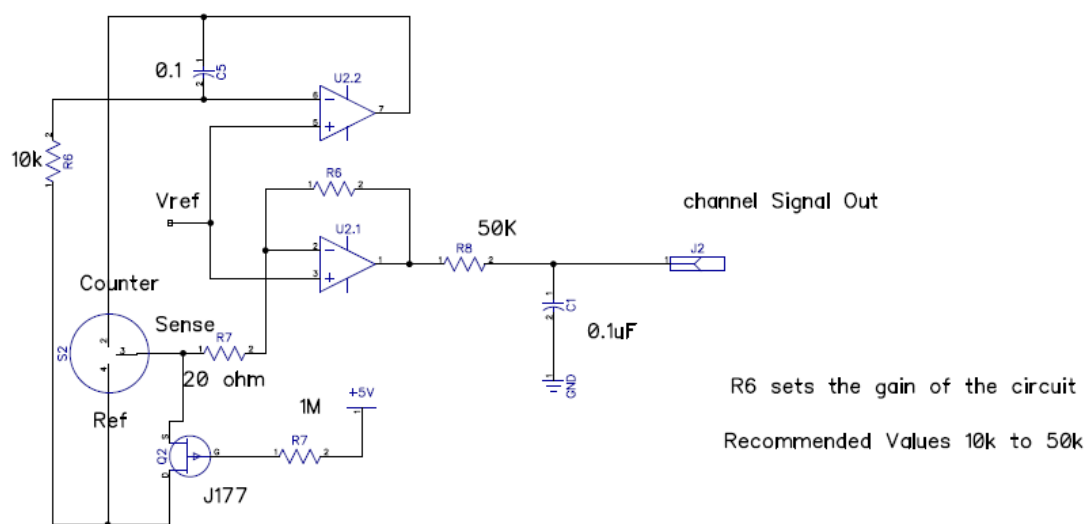
Gas	Test Gas Concentration (ppm)	Typical CO Concentration Equivalent (ppm)
Carbon Monoxide	300 ppm	0 ppm
Sulphur dioxide	20 ppm	0 ppm
Hydrogen	200 ppm	0 ppm
Nitric Oxide	50 ppm	<-1 ppm
Ammonia	50 ppm	0 ppm
Chlorine	1 ppm	0.5 ppm
Hydrogen Sulphide	15 ppm	<1 ppm
Carbon Dioxide	5000 ppm	0 ppm

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.

Span Temperature Sensitivity (relative to 20°C)



Recommended Circuit Diagram



Warranty and warning

Use within specified conditions.

Sensor characteristics must be measured in clean air without noise gases.

Electrode pins must be correctly connected. Wrong connection does not allow correct functions.

Do not apply voltage directly to electrode pins.

Do not bend pins.

Do not solder to electrode pins directly. Use exclusive sockets.

Do not use contact grease on electrode pins.

Do not put excess strength on electrode pins.

If sensor housing is damaged or scratched, do not use sensor.

Do not blow organic solvents, paints, chemical agents, oils, or high concentration gases onto sensor.

Do not disassemble or change any parts.

If sensor is used under irregular atmosphere, contact us for assistance.

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. In case of modification of the product, N.E.T. disclaims all liability.

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