

SGX-7CO Datasheet

Industrial Carbon Monoxide Sensor

Application : Fixed Gas Detectors

PERFORMANCE

Measurement Range 0 – 1000 ppm
Zero Current (in air) $<\pm 2$ ppm CO equivalent
Output Signal 100 ± 20 nA / ppm
Linearity Linear
Repeatability $< \pm 1\%$ CO equivalent
Response time, t_{90} < 30 s
Maximum Overload 2000 ppm
Long-term Output Drift $< 5\%$ per annum
Recommended Load Resistor 10 ohms
Warranty 2 year
Resolution (Electronics dependent) < 0.5 ppm typical

OPERATING CONDITIONS

Temperature Range -30 to $+50^\circ\text{C}$
Operating Humidity... 15 – 90% RH (non-condensing)
Pressure range 800 mbar to 1200 mbar
Recommended Storage Temperature ... 0°C to 20°C
Expected Operating Life > 2 years (in air)

INTRINSIC SAFETY DATA

Maximum at 2000 ppm 0.3 mA
Maximum o/c Voltage 1.3 V
Maximum s/c Current < 1.0 A

CROSS-SENSITIVITY DATA

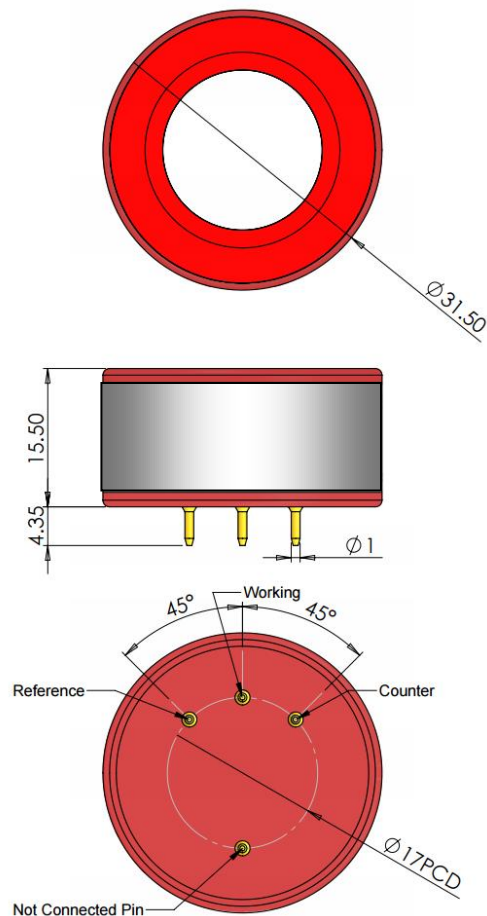
GAS	CONC.	SGX-7CO
Hydrogen Sulfide	15 ppm	< 0.1 ppm
Sulfur Dioxide	5 ppm	0 ppm
Nitrogen Dioxide	5 ppm	-0.5 ppm
Nitric Oxide	35 ppm	< 7 ppm
Hydrogen	100 ppm	< 60 ppm
Chlorine	1 ppm	0 ppm
Ethylene	100 ppm	< 90 ppm

Note: This table is for reference only. Calibration should be carried out with the actual gas at a known concentration.

This device is designed to be RoHS compliant.

PRODUCT DIMENSIONS

All dimensions in mm
All tolerances ± 0.15 mm



IMPORTANT NOTES

All performance is based on conditions at 20°C , 50% RH and 1 atm, using SGX recommended circuitry.

Sensor performance is temperature dependant; please contact SGX for temperature performance other than 20°C .

Do not solder to the connector pins as this may damage the sensor and thereby invalidate the warranty.

Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.

POISONING

SGX sensors are designed to operate in a wide range of harsh environments and conditions. However it is important that exposure to high concentrations of solvent vapours is avoided during storage, fitting into instruments and operation. When using sensors on printed circuit boards (PCBs), degreasing agents should be used prior to the sensor being fitted.

TEMPERATURE PERFORMANCE (Typical)

