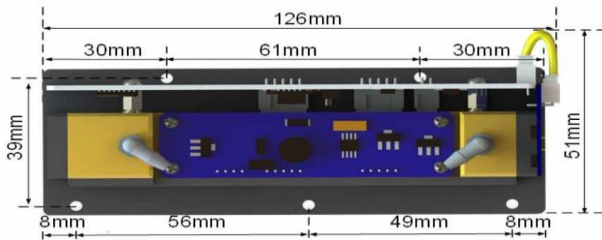


Senovol NDIR-CO-10%VOL sensor is designed using Non-dispersive Infrared (NDIR) technology for the continuous detection of Carbon Monoxide (CO) up to 10% in volume. It is a high-performance, industrial-grade and long-life CO-specific sensor with minimized cross-sensitivities from other gases.



Product Dimensions



Top View



Side View

All dimensions in mm

Performance

Sensor principle	non-dispersive infrared (NDIR)
Measurement range	0 ~ 10% CO (reading in ppm)
Sampling Mode	Pumping (300~800ml/min)
Response time	< 3 seconds @500 ml/min
Recovery time	< 3 seconds @500 ml/min
Long-term stability	< ±500 ppm/month
Resolution	10 ppm
Accuracy	±150 ppm @20°C (<5000 ppm) ±1% FS @20°C (10% vol)

(0.3 ~ 0.4 V for Negative Reading)

Mechanical

Optical path	gilt stainless steel
Solder	Sn, Ag, Cu
Weight	208 grams

Environmental

Temperature range	-20°C ~ +50°C
Pressure range	1 atm ± 50%
Humidity range	0 % ~ 85 % RH non-condensing

Electrical

Supply voltage	9 ~ 24 VDC
Working current	< 150 mA at 9 V
Power consumption	< 1.0 W Average < 1.5 W @ peak
Warm-up time	3 min (±500 ppm ±1% FS) 60 min (±150 ppm ±1% FS)
Output voltage	0.4 ~ 2.0 VDC (0.3~0.4 for negative reading)

Lifetime

Storage temperature	-40 °C ~ 50 °C
Operating lifetime	> 5 years
Storage life	> 5 years
Warranty	18 months

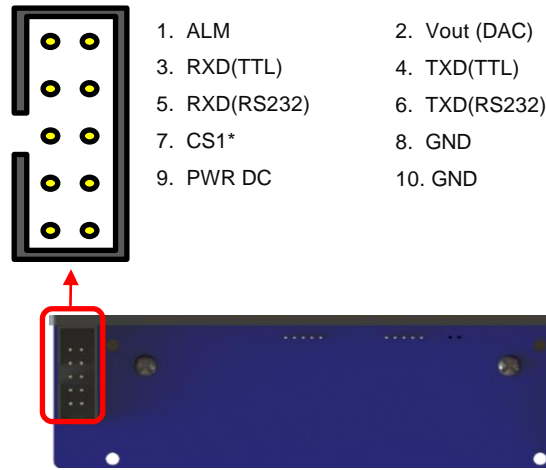
Approvals

Pending

Caution

The presence of condensed water and dust has the potential to harm the sensor, so adding filters to keep them out is highly recommended. Additionally, sensor damage can result from mechanical shock and electrical overload.

Pinout Details



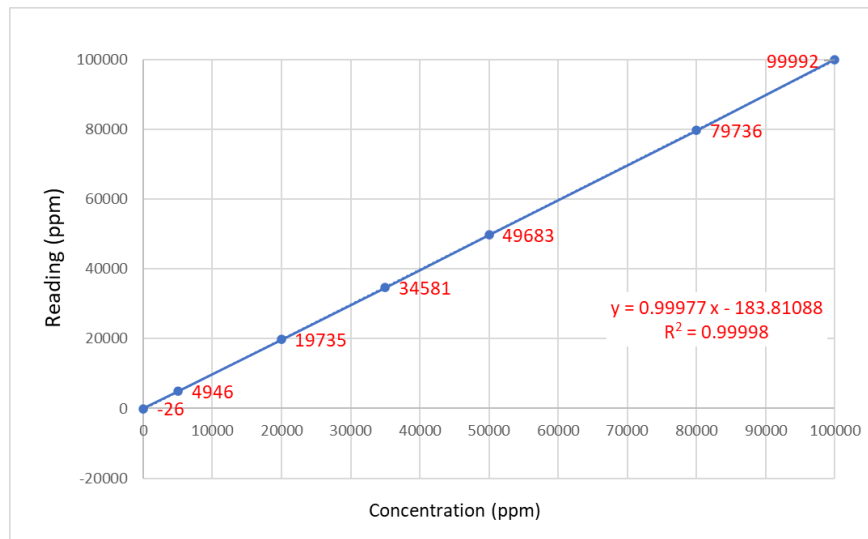
*Note: CS1: 0~3.3 VDC output, RS485 read and write.

Cross-Sensitivities

10,000 ppm of Carbon Dioxide (CO₂) is equivalent to 75 ppm of Carbon Monoxide (CO).

* Please contact us if you need the sensor with no cross-sensitivity from CO₂. The PN is NDI-0001-1003LX (4,73um vs. 4.66um wavelength).

Linearity Data



Accessories Included

- Tygon Tube: Polyethylene (Transparent), Length 50 mm x 2, Diameter 3.2 mm x 6.4 mm
- Ribbon Cable: Length 400 mm, 10-pin, 28 AWG, Gray, Female Connector (2 x 5), 2.54 mm pitch

Safety Note

If the sensor is used in certain instruments for life critical applications, it is required to read the instrument user's guide carefully and comply with the calibration procedures by using the certified target calibration gas before each use. Failure to do so may cause serious injury and/or fatality. It is highly recommended for customers to validate the sensor performance using this document as a reference for their product designs or applications.