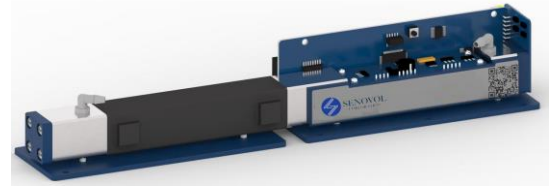
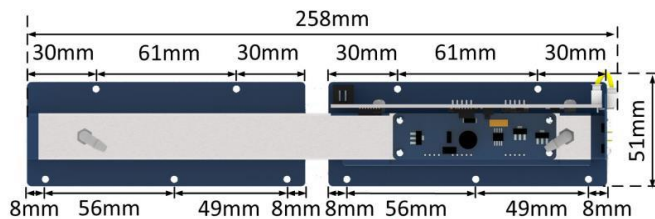


Senovol NDIR-N2O-100 ppm sensor is designed using Non-dispersive Infrared (NDIR) technology for the continuous detection of Nitrous Oxide (N2O) up to 100 ppm in sensitivity. It is a high-performance, industrial-grade and long-life N2O-specific sensor with minimized cross-sensitivities from other gases.



### Product Dimensions



Top View



Side View

All dimensions in mm

### Performance

Sensor principle	non-dispersive infrared (NDIR)
Measurement range	0 ~ 100 ppm
Sampling Mode	Pumping (300~800ml/min)
Response time	≤ 8 seconds @500 ml/min
Recovery time	≤ 8 seconds @500 ml/min
Long-term stability	< ±10 ppm/month
Resolution	200 ppb/sec
Accuracy	±5 ppm @20°C
Detection limit	400 ppb

### Electrical

Supply voltage	9 ~ 24 VDC
Working current	< 0.15 A @ 9 VDC
Power consumption	< 1.0 W Average < 1.5 W @ peak
Warm-up time	3 min (±10 ppm) 30 min (± 5 ppm)
Output voltage	0.4 ~ 2.0 VDC (Pin#2) (0.3~0.4 for negative reading)

### 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.

### Mechanical

Optical path	gilt stainless steel
Solder	Sn, Ag, Cu
Weight	540 grams

### Environmental

Temperature range	0°C ~ 40°C
Pressure range	0.5 – 1.5 atm
Humidity range	0 % ~ 85 % RH non-condensing

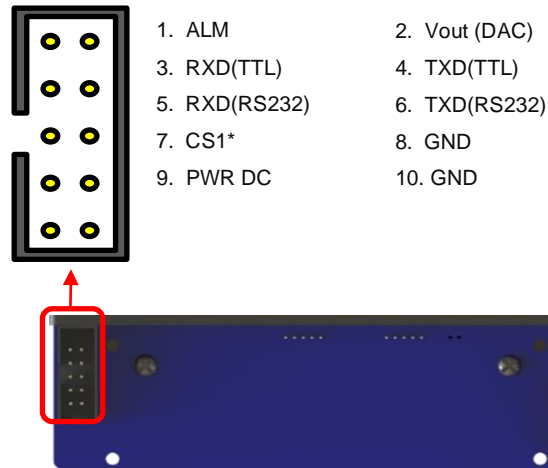
### Lifetime

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

### Approvals

Pending

## Pinout Details



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

## Accessories Included

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