



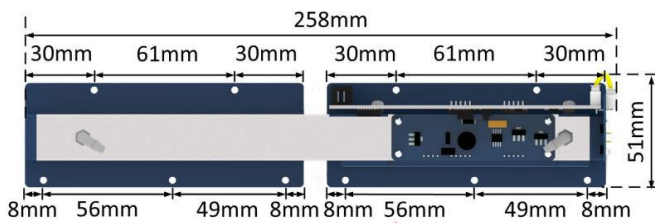
Non-dispersive Infrared (NDIR) Gas Sensors

NDIR-CO-1000 ppm, Part Number: NDI-0001-1001

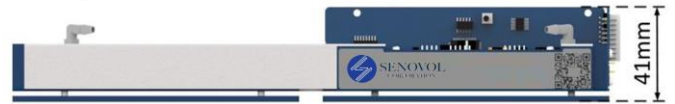
Senovol NDIR-CO-1000ppm sensor is designed using Non-dispersive Infrared (NDIR) technology for the continuous detection of Carbon Monoxide (CO) up to 1000 ppm in sensitivity. It is a high-performance, industrial-grade and long-life CO-specific sensor with minimized cross-sensitivities from other gases.



Product Dimensions



Top View



Side View

All dimensions in mm

Performance

| | |
|---------------------|--------------------------------|
| Sensor principle | non-dispersive infrared (NDIR) |
| Measurement range | 0 ~ 1000 ppm |
| Sampling Mode | Pumping (300~800ml/min) |
| Response time | ≤ 10 seconds @500 ml/min |
| Recovery time | ≤ 10 seconds @500 ml/min |
| Long-term stability | < ±100 ppm/month |
| Resolution | 1 ppm/sec @ 0 ppm |
| Accuracy | ±20 ppm @20°C |
| Detection limit | 2 ppm |

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 (±100 ppm ±1% FS) 30 min (± 25 ppm ±1% FS) |
| Output voltage | 0.4 ~ 2.0 VDC (Pin#2) (0.3~0.4 for negative reading) (0.3~0.4 V for Negative Reading) |

Mechanical

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

Environmental

| | |
|-------------------|------------------------------|
| Temperature range | 0°C ~ 40°C |
| Pressure range | 0.5 - 2 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 |

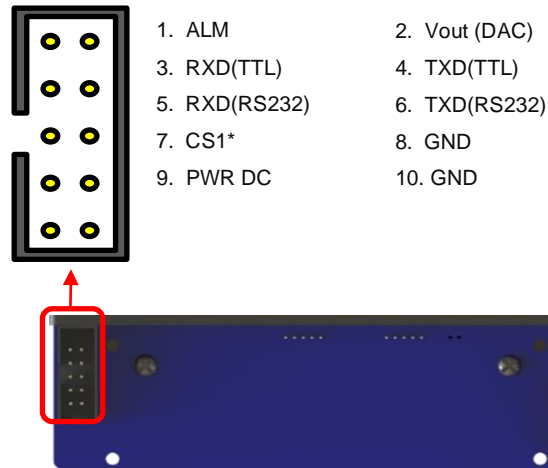
Approvals

Pending

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.

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.