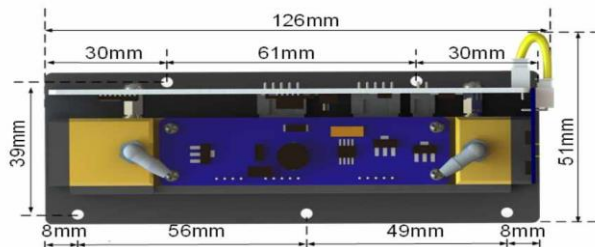


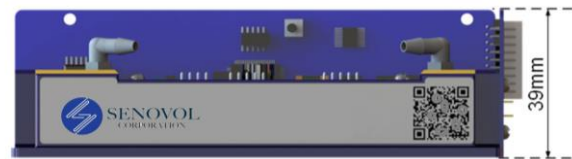
Senovol NDIR-SF6 sensor is designed using Non-dispersive Infrared (NDIR) technology for the detection of Sulfur hexafluoride (SF6). SF6 is toxic and mainly used in the electrical industry as a gaseous dielectric medium for high-voltage sulfur hexafluoride circuit breakers, switchgear, and other electrical equipment.



Product Dimensions



Top View



Side View

All dimensions in mm

Performance

Sensor principle	non-dispersive infrared (NDIR)
Measurement range	0 ~ 1000 ppm SF6
Resolution	200 ppb
Response time	< 6 seconds (@500 ml/min)
Recovery time	< 6 seconds (@500 ml/min)
Long-term Stability	< ±2 ppm (Zero) < ±4 ppm (F.S.)
Tolerance	± 2 ppm (20°C ~ 30°C) ± 4 ppm (0°C ~ 50°C) ± 8 ppm (-20°C ~ 50°C)
Reading Unit	ppb
Detection Limit	400 ppb

Lifetime

Storage temperature	-20°C ~ 50°C
Operating lifetime	> 5 years
Storage life	> 5 years
Warranty	18 months

Electrical

Supply voltage	9 ~ 24 VDC (Pin #9)
Working current	< 150 mA at 9 VDC
Power consumption	< 1.0 W Average < 1.5 W @ peak
Warm-up time	3 min (Tolerance ± 8 ppm) 60 min (Tolerance ± 4 ppm)
Output voltage	0.4 ~ 2.0 VDC (Pin #2) (0.3 ~ 0.4 V for Negative Reading)

Mechanical

Optical path	Stainless steel
Weight	208 grams

Environmental

Temperature range	-20°C ~ 50°C
Pressure range	1 atm ± 50%
Humidity range	0% ~ 85% RH non-condensing
Flow rate	300 ~ 800 ml/min

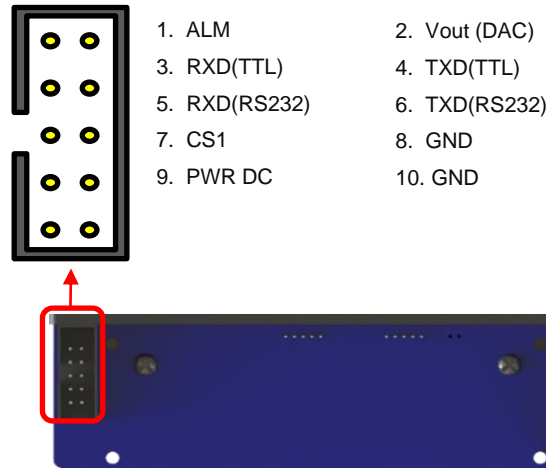
Approvals

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 for RS485 modbus converter

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.