

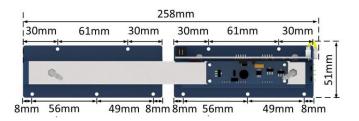
Non-dispersive Infrared (NDIR) Gas Sensors

NDIR-SF6-200 ppm, Part Number: NDI-0015-2000

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 ~ 200 ppm SF6

Resolution < 60 ppb

Response time < 1 second (Responsible)

< 12 seconds (@500 ml/min)

Recovery time < 12 seconds (@500 ml/min)

Recovery time ≤ 10 seconds @500 ml/min

Long-term stability being tested

Tolerance $\pm 100 \text{ ppb } (0 \sim 10 \text{ppm})$

 ± 2 ppm (10 ~ 100ppm)

Reading Unit ppb
Detection Limit 100 ppb

Lifetime

Storage temperature $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}$ 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 ± 1 ppm)

60 min (Tolerance ± 100 ppb)

Output voltage NR

Mechanical

Optical path Stainless steel Weight 540 grams

Environmental

Temperature range $0^{\circ}\text{C} \sim 40^{\circ}\text{C}$ Pressure range $1 \text{ atm} \pm 50\%$

Humidity range 0% ~ 85% RH non-condensing

Flow rate 300 ~ 800 ml/min

Approvals

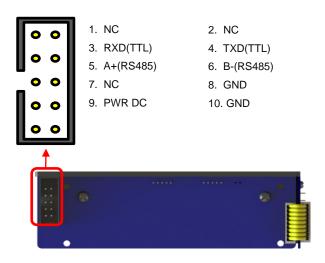
Pending

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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



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.

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