# **Ethylene Oxide Gas Sensor**

2025. Ver 1.0

## **Applications & Features**

- · Ideal for fixed instruments
- Industrial safety for chemical production
- Sterilization process

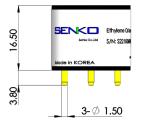


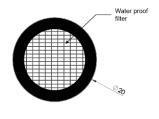
## **Specifications**

| Performance Characteristics               |   |  |
|---|---|--|
| Output Signal                             | 270±70 nA / ppm                                       |  |
| Typical Baseline Range (pure air, @ 20°C) | ≤ ±0.5 ppm C <sub>2</sub> H <sub>4</sub> O equivalent |  |
| Response Time (T90)                       | < 200 seconds   |  |
| Filter                                    | None  |  |
| Measurement Range                         | 0-20 ppm  |  |
| Maximum Overload                          | 100 ppm   |  |
| Linearity                                 | Linear  |  |
| Repeatability                             | < ±5% of signal                                       |  |
| Recommended Load Resistor                 | 10 ohms   |  |
| Resolution (Electronics Dependent)        | < 0.5 ppm typical                                     |  |
| Bias Voltage                              | +300 mV   |  |
| Environmental Environmental               |   |  |
| Temperature Range Continuous              | -20°C to +50°C  |  |
| Pressure Range                            | 800 to 1200 mbar                                      |  |
| Operating Humidity Range                  | 15% to 90% RH   |  |
| Lifetime                                  |   |  |
| Long Term Output Drift                    | < 2% per annum  |  |
| Recommended Storage Temp                  | 0°C to 20°C   |  |
| Expected Operating Life                   | > 24 months in air                                    |  |
| Standard Warranty                         | 24 months from date of dispatch                       |  |
| Intrinsic Safety Data                     |   |  |
| Maximum at 100 ppm                        | 50 μΑ   |  |
| Maximum o/c Voltage                       | < 1.0 V   |  |
| Maximum s/c Current                       | < 0.1 A   |  |

#### **Dimension**



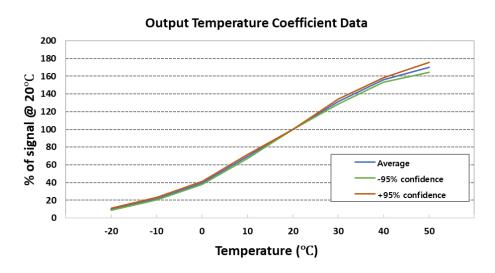




Due to ongoing research and product improvement, specifications are subject to change without notice.

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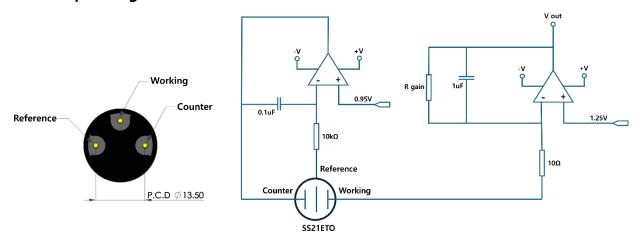
## **Temperature Effects**



### **Cross Sensitivity**

| Gas             | Concentration [ppm] | Reading [ppm] |
|-----------------|---------------------|---------------|
| Ethylene Oxide  | 5                   | 5             |
| Carbon Monoxide | 100                 | 50            |
| Hydrogen        | 500                 | < 2           |
| Ammonia         | 100                 | 0             |
| Ethanol         | 207                 | 140           |
| Vinyl Chloride  | 10                  | 8             |
| Toluene         | 5                   | 0.2           |

## Standard Operating Circuit



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