

Volatile Organic Compounds Gas Sensor

Product Data Sheet
Model #SB-4VOC-500

2025. Ver 1.0

Applications & Features

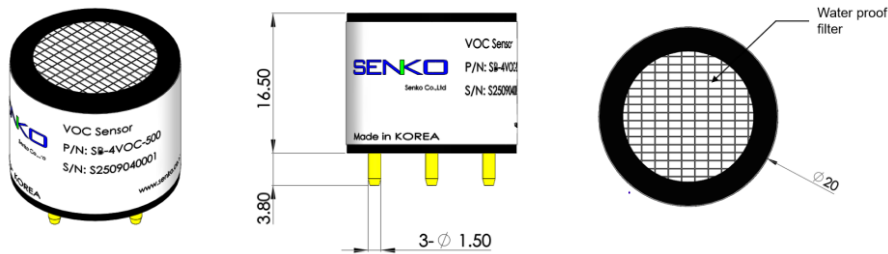
- Ideal for portable and fixed gas detectors
- Industrial safety applications
- Emission monitoring
- Environmental air quality monitoring



Specifications

Performance Characteristics	
Output Signal	250±50 nA / ppm
Typical Baseline Range (pure air, @ 20°C)	≤ ±0.5 ppm iso-butylene equivalent
Response Time (T90)	< 30 seconds
Filter	None
Measurement Range	0-500 ppm
Maximum Overload	1000 ppm
Linearity	Linear
Repeatability	< ±5% of signal
Recommended Load Resistor	10 ohms
Resolution (Electronics Dependent)	< 1 ppm typical
Bias Voltage	Not required
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	< 5% 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 1000 ppm	0.3 mA
Maximum o/c Voltage	< 1.0 V
Maximum s/c Current	< 0.1 A

Dimension



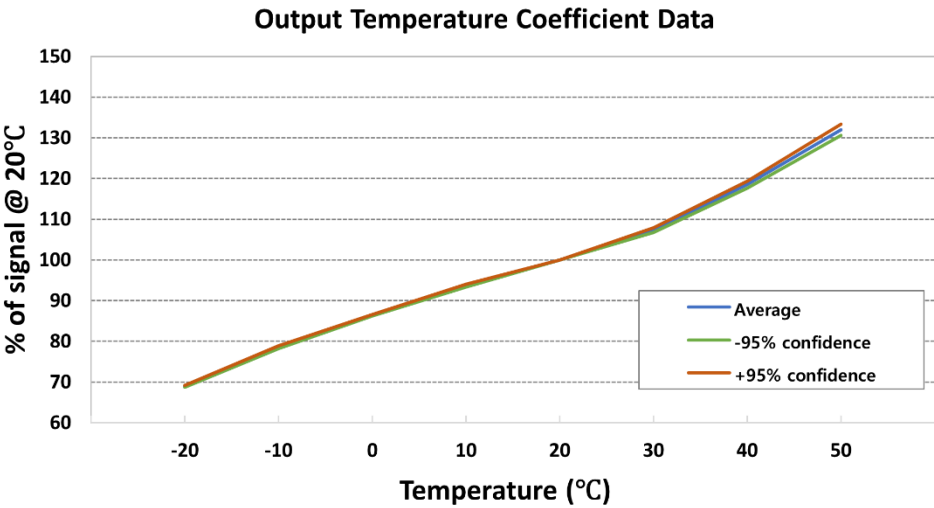
Due to ongoing research and product improvement, specifications are subject to change without notice.

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Temperature Effects



Cross Sensitivity

Gas	Concentration [ppm]	Reading [ppm]
iso-Butylene	30	30
Acetylene	240	173
Ethylene	270	66
Ethane	240	10
Propylene	180	103
Vinyl Chloride	10	1
Acrylonitrile	20	1
Ethylene Oxide	10	1
Ethanol	210	24
Benzene	10	1
Methanol	50	2
Methane	1000	1
Isopropyl Alcohol	20	4
Tetrafluoromethane	2000	1
Fluoromethane	120	1
Difluoromethane	120	1
Carbon Monoxide	100	85
Hydrogen Sulfide	5	31
Chlorine	10	-8
Nitric Oxide	100	25
Nitrogen Dioxide	50	-63
Sulfur Dioxide	10	13
Hydrogen	500	58
Ammonia	100	0
Carbon Dioxide	5000	1

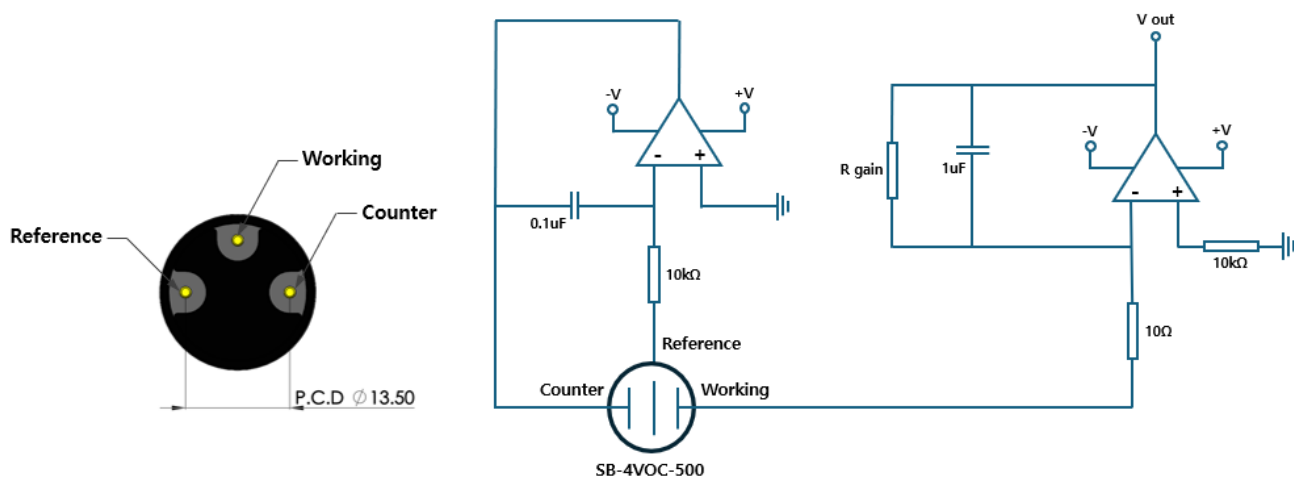
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Standard Operating Circuit



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