Chlorine Dioxide Gas Sensor

Product Data Sheet
Model #SB-4ClO2-1

2025. Ver 1.0

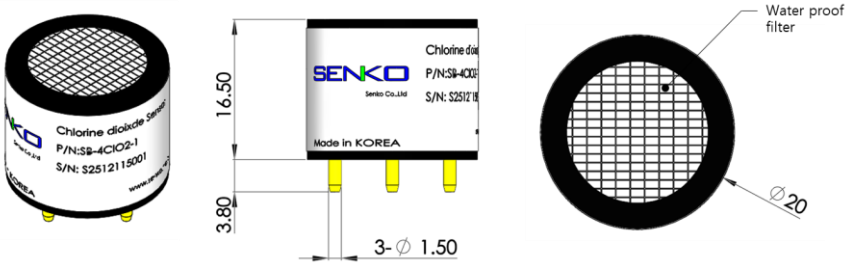
Applications & Features

- Ideal for portable and fixed gas detectors
- Industrial safety
- Disinfection / Bleaching processes
- High stability
- Fast response and recovery

Specifications

Performance Characteristics	
Output Signal	-800 ± 300 nA/ppm
Typical Baseline Range (pure air, @ 20℃)	≤ ±0.03 ppm ClO_2 equivalent
Baseline Shift (-20℃ ~50℃)	≤ ±0.1 ppm Typical
Response Time (T90)	< 30 seconds
Measurement Range	0 - 1 ppm
Maximum Overload	10 ppm
Linearity	Linear
Repeatability	< ±5% of signal
Recommended Load Resistor	10 ohms
Resolution (Electronics Dependent)	< 0.05 ppm typical
Bias Voltage	Not required
Environmental	
Temperature Range Continuous	-20 ℃ to +50 ℃
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 ℃ to 20 ℃
Expected Operating Life	> 24 months in air
Standard Warranty	12 months from date of dispatch
Intrinsic Safety Data	
Maximum at 10 ppm	15 µA
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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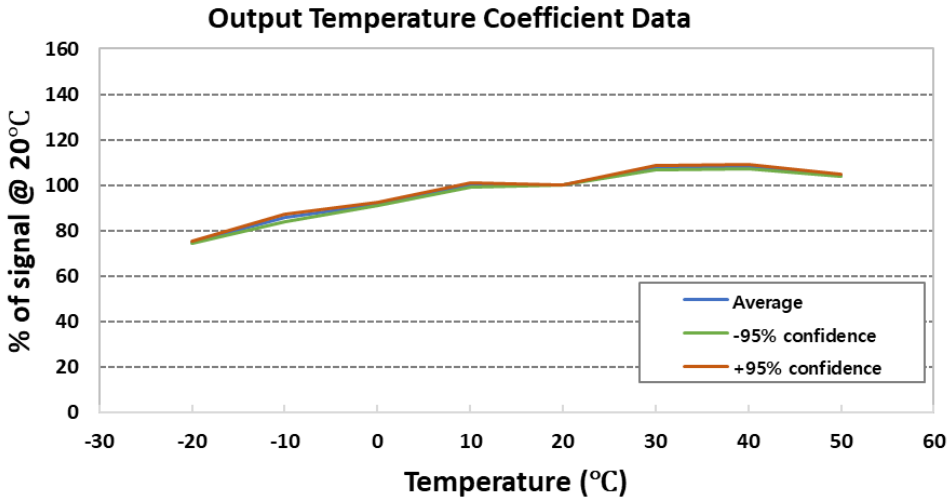
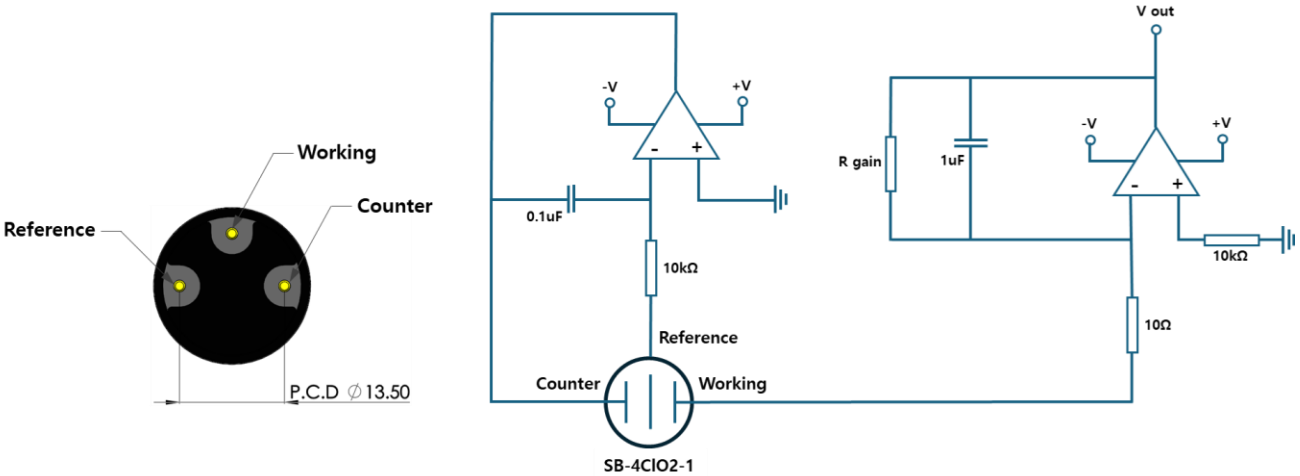
Temperature Effects



Cross Sensitivity

Gas	Concentration [ppm]	Reading [ppm]	Gas	Concentration [ppm]	Reading [ppm]
Carbon monoxide	100	0.0	Chlorine	10	2.9
Hydrogen	500	0.0	Hydrogen fluoride	10	0.0
Carbon dioxide	5000	0.0	Nitric dioxide	10	4.2
Isopropyl alcohol	20	0.0	Hydrogen cyanide	10	0.0
Phosphine	5	-4.3	Nitric oxide	100	0.0
Silane	50	-17	Sulfur dioxide	20	-1.8
Ozone	5	0.0	Hydrogen sulfide	50	-66
Hydrogen chloride	10	0.0	Ammonia	100	0.0

Standard Operating Circuit



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