

# Silane Gas Sensor

Product Data Sheet  
Model #SS21S8

2024. Ver 1.1

## Applications

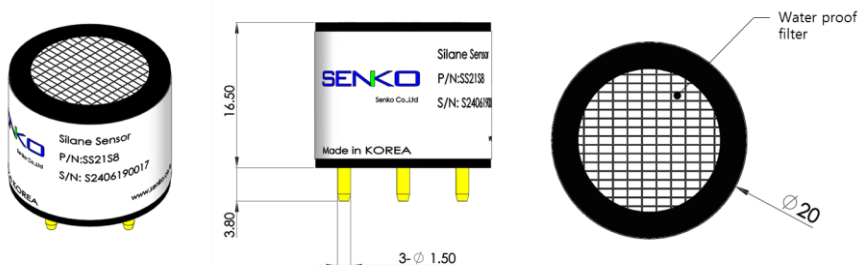
- Ideal for fixed instrument
- Industry safety (Semiconductor production)
- Etc.



## Specifications

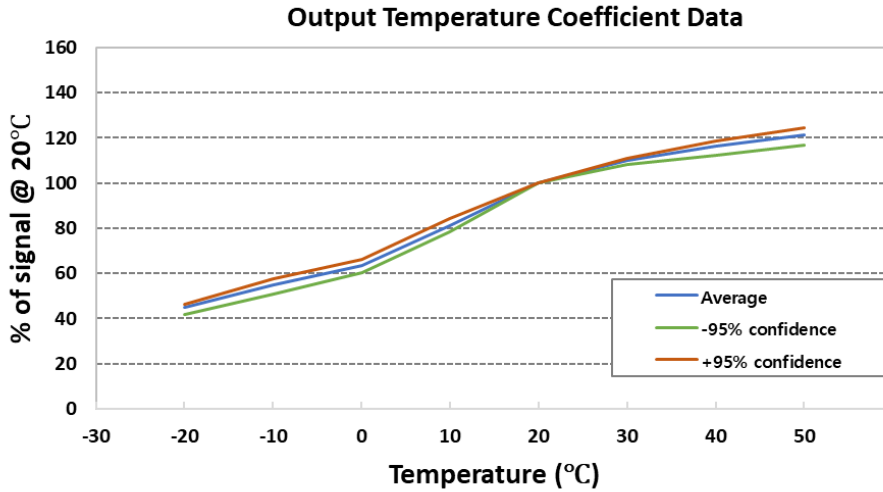
Performance Characteristics	
Output Signal	300±150 nA / ppm
Typical Baseline Range (pure air)	±0.5 ppm SiH <sub>4</sub> equivalent
T90 Response Time	< 50 seconds
Measurement Range	0-20 ppm
Maximum Overload	40 ppm
Linearity	Linear
Repeatability	< ±5% of signal
Recommended Load Resistor	10 ohms
Resolution (Electronics Dependent)	< 0.1 ppm typical
Environmental	
Temperature Range Continuous	-20°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH
Life Time	
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 40ppm	10 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

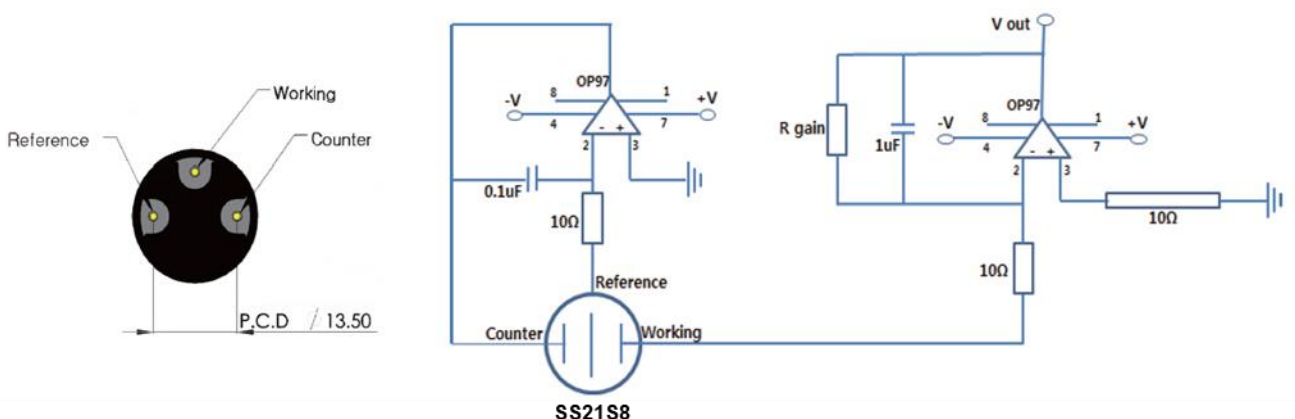
## Temperature effects



## Cross sensitivity

Gas	Concentration [ppm]	Reading [ppm]	Gas	Concentration [ppm]	Reading [ppm]
Silane	10	10	Nitrogen Dioxide	50	< -10
Carbon Monoxide	100	0	Diborane	5	< 5
Hydrogen	5,000	< 2	Hydrogen Chloride	10	< 0.5
Hydrogen Sulfide	50	< 8	Phosphine	5	< 3
Sulfur Dioxide	20	< 2	Arsine	5	< 2
Chlorine	10	< 0.1			

## Standard operating circuit



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