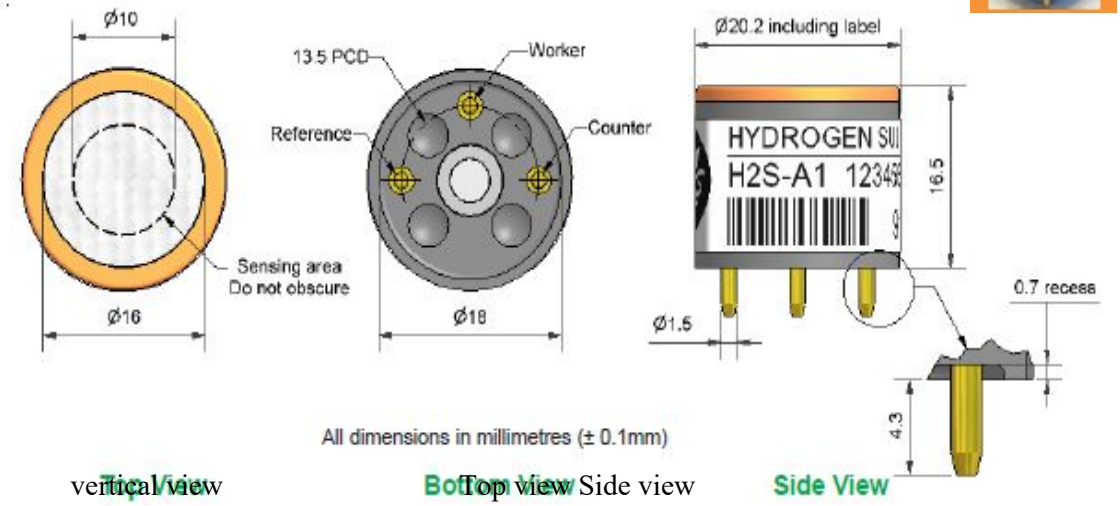
H2S-A1 Sulfur Dioxide Sensor

Figure 1H2S-A1 Schematic Diagram



vertical view Top view Side view

function	sensitivity	Sensitivity in 2 $_2$ ppm H of H_2S (nA /ppm)	550~900
	reaction time	Time to t90 from zero to 20ppmH $_2$ S (s)	< 35
	zero current	Equivalent ppm value at zero air level	< ±0.4
	resolution ratio	RMS noise (equivalent ppm value)	< 0.05
	scope	Measuring limits (ppm) that guarantee product performance	100
	degree of linearity	The ppm value of the full scale error is linear from 0 to 20ppm	0~-4
	overload	The maximum ppm of gas pulse stabilization reaction	500
life span	zero drift	Equivalent ppm values that change in the laboratory air from year to year	< 0.1
	sensitivity drift	Percentage change in laboratory air over the year, measured monthly	< 3
	working life	Number of months to which the output is reduced to 80% of the original signal (24 months guaranteed)	> 24
environment	-20°C sensitivity	At 20ppmH $_2$ S, (output at-20°C/ output at 20°C)%	80~92
	Sensitivity at 50°C	At 20ppmH $_2$ S, (output at 50°C/ output at 20°C)%	100~110
	-20°C when zero point	Change in equivalent ppm values with reference to 0°C 20	< ± 0.5
	50°C at zero point	Change in equivalent ppm values with reference to 0°C 20	< ± 0.7
cross sensitivity	NO_2	Gas sensitivity percentage $_2$ measured at 10ppmNO	< -20
	Cl_2	Gas sensitivity percentage measured $_2$ at 10ppmCl	< -25
	NO	Gas sensitivity percentage measured at 50ppmNO	< 4
	SO_2	Gas sensitivity percentage $_2$ measured at 20ppmSO	< 10
	CO	Gas sensitivity percentage measured at 400ppmCO	< 6
	H_2	Gas sensitivity percentage measured at 400ppmH $_2$	< 0.2
	C_2H_4	Gas sensitivity percentage measured at 400ppmC $_2$ H $_4$	< 0.5
	NH_3	Gas sensitivity percentage $_3$ at 20ppmNH	< 0.1
key parameter	temperature range	℃	-30~50
	pressure limit	kPa	80~120
	Humidity range	Percentage of continuous relative humidity	15~90
	Storage period	Number of months for preservation from 3 to 20°C (to be kept in a sealed tank)	6
	load resistance	Ω （recommend）	10~47
	weight	g	< 6

Figure 2 Sensitivity Temperature Characteristics

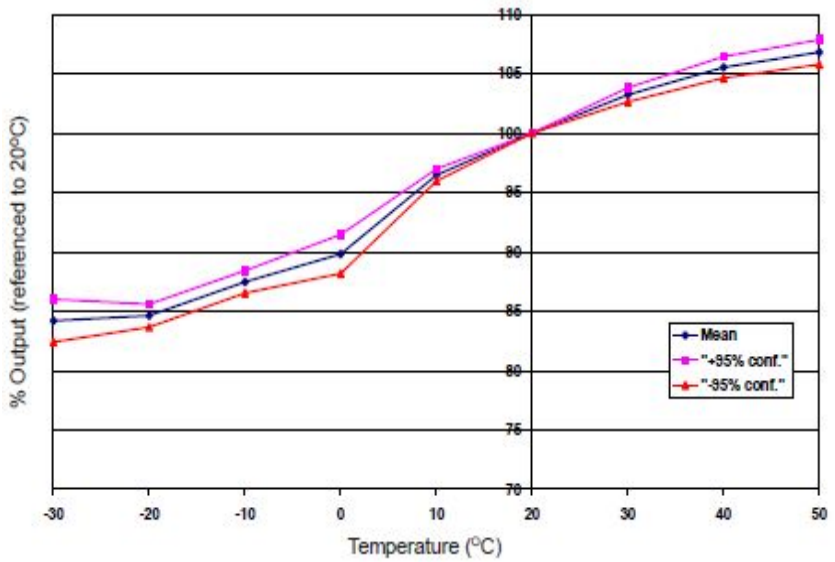


Figure 2 shows the change in sensor sensitivity caused by temperature changes.

The data were collected from typical batches of transducers. Figure 2 shows the average value and ±95% confidence interval of the output percentage (reference 20 ℃).

Figure 3 Zero Temperature Characteristics

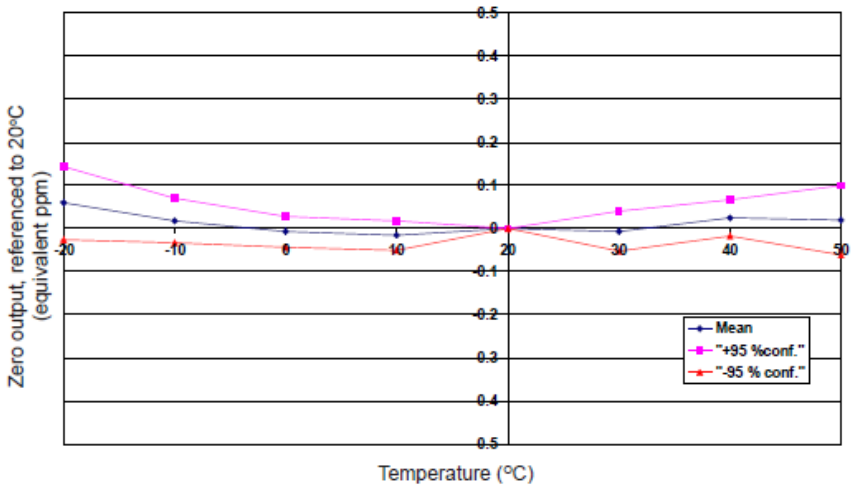
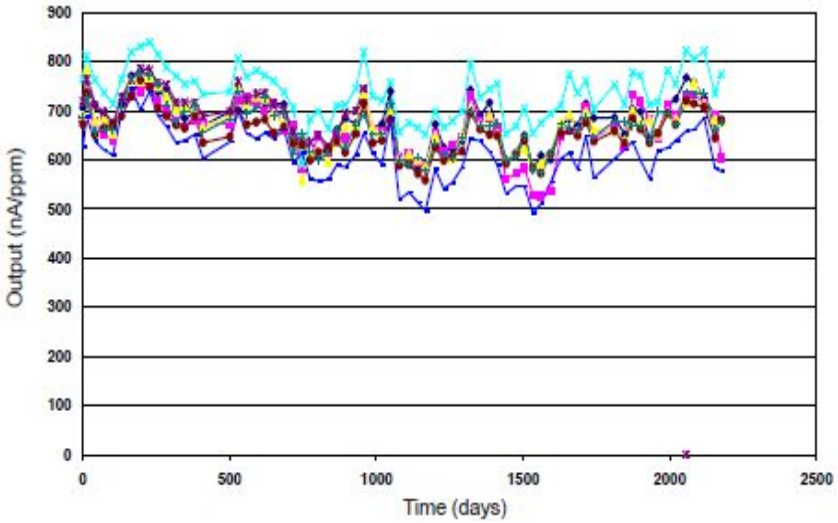


Figure 3 shows the zero point output variation caused by temperature variation, expressed as equivalent ppm values, with reference to the zero point at 20℃.

Data taken from typical batch sensors. Displayed as mean and ±95% confidence interval

Figure 4 Long-Term Stability of Sensitivity



Based on the patented product design, excellent electrochemical characteristics and automatic process control, H2S-A1 sensor shows good sensitivity and long-term stability. As shown in Figure 4.

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