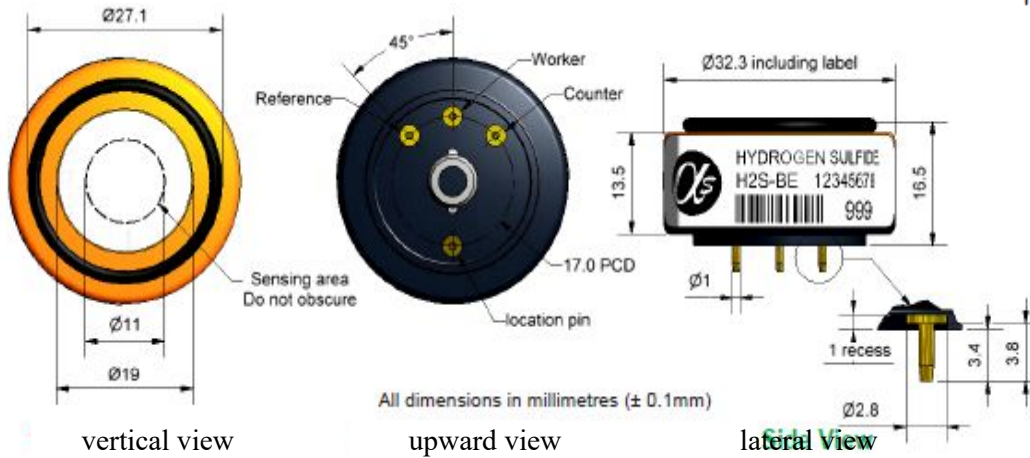


H2S-BE Sulfur Dioxide Sensor High Concentration



PATENTED

Figure 1 Schematic Diagram of H2S-BE



function	sensitivity	Sensitivity in H_2S 2ppmH at 200ppmH (nA/ppm)	80~140
	reaction time	Time to t90 from zero to 200ppmH H_2S (s)	< 50
	zero current	Equivalent ppm value of zero air	< ±3
	resolution ratio	RMS noise (equivalent ppm value)	< 0.5
	scope	Measuring limits (ppm) that guarantee product performance	2000
	degree of linearity	The ppm value of the error at 2000ppm, and it is linear between 0 and 400ppm	< 30
	overload	The maximum ppm of gas pulse stabilization reaction	10000
life span	zero drift	Equivalent ppm values that change in the laboratory air from year to year	< 0.25
	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 200ppmH H_2S , (output at -20°C/ output at 20°C)%	83~92
	Sensitivity at 50°C	At 200ppmH H_2S , (output at 50°C/ output at 20°C)%	102~112
	-20°C when zero point	Change in equivalent ppm values with reference to 0°C 20	< ±4
	50°C at zero point	Change in equivalent ppm values with reference to 0°C 20	< ±4
cross sensitivity	NO ₂	Gas sensitivity percentage H_2S measured at 10ppmNO	< -25
	Cl ₂	Gas sensitivity percentage measured H_2S at 10ppmCl	< -12
	NO	Gas sensitivity percentage measured at 50ppmNO	< 10
	SO ₂	Gas sensitivity percentage H_2S at 20ppmSO	< 20
	CO	Gas sensitivity percentage measured at 400ppmCO	< 4
	H ₂	Gas sensitivity percentage H_2S at 400ppmH	< 0.2
	C ₂ H ₄	Gas sensitivity percentage measured at 400ppmC ₂ H ₄	< 0.25
NH ₃	Gas sensitivity percentage H_2S at 20ppmNH	< 0.1	
key parameter	temperature range	°C	-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	< 13

Figure 2 Sensitivity Temperature Characteristics

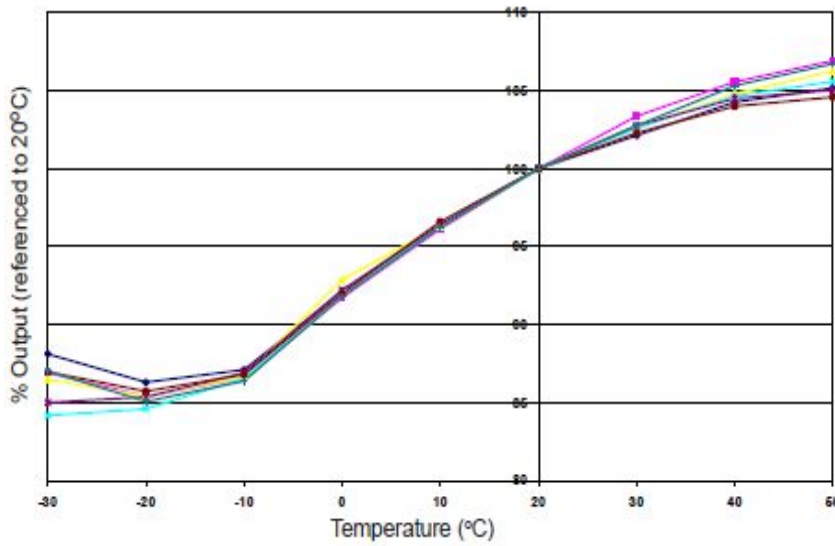


Figure 2 shows the change in sensor sensitivity caused by temperature variation.

Data is collected from typical batch sensors.

Figure 3 Zero Temperature Characteristics

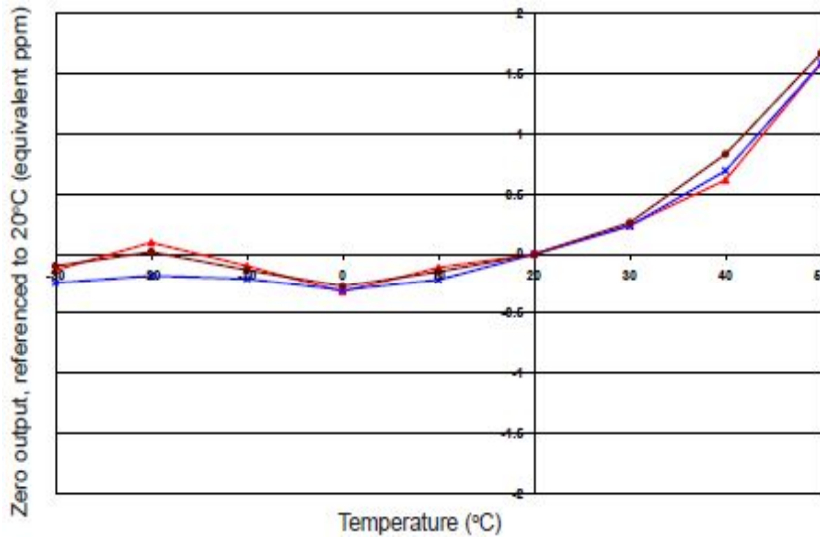
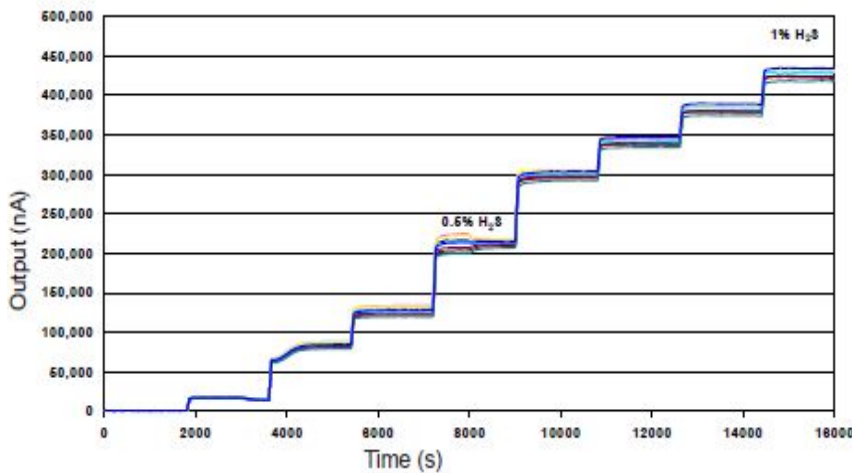


Figure 3 shows the change in zero point output caused by temperature changes, expressed as ppm values equivalent to the zero point at reference 20°C.

Data was taken from a typical batch of sensors.

Figure 4 High Concentration Reaction



Based on the sensor design, H₂S-BE can withstand periodic measurements of high concentrations of H₂S while maintaining performance.

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