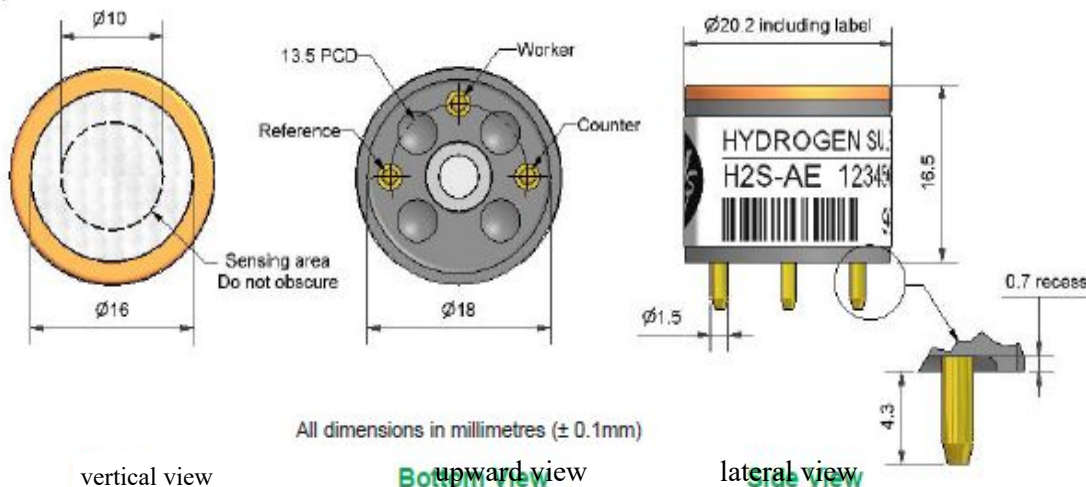


## H2S-AE Sulfur Dioxide Sensor High Concentration



Figure 1 Schematic Diagram of H2S-AE



function	sensitivity	Sensitivity in $\text{H}_2\text{S}$ 400ppmH at 200mV (nA/ppm)	65~125
	reaction time	Time from zero to 400ppmH $\text{H}_2\text{S}$ (s)	< 25
	zero current	Equivalent ppm value of zero air	< $\pm 3$
	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 full scale error is linear from 0 to 400ppm	0~40
	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	nd
	sensitivity drift	Percentage change in laboratory air over the year, measured monthly	nd
	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 $\text{H}_2\text{S}$ , (output at -20°C/ output at 20°C)%	80~92
	Sensitivity at 50°C	At 20ppmH $\text{H}_2\text{S}$ , (output at 50°C/ output at 20°C)%	100~110
	-20°C when zero point	Change in equivalent ppm values with reference to 20°C zero	< $\pm 1$
	50°C at zero point	Change in equivalent ppm values with reference to 20°C zero	< $\pm 1$
cross connection sensitivity	NO <sub>2</sub>	Gas sensitivity percentage $\text{H}_2\text{S}$ measured at 10ppmNO	< -20
	Cl <sub>2</sub>	Gas sensitivity percentage $\text{H}_2\text{S}$ measured at 10ppmCl	< -15
	NO	Gas sensitivity percentage measured at 50ppmNO	< 20
	SO <sub>2</sub>	Gas sensitivity percentage $\text{H}_2\text{S}$ measured asppmSO	< 20
	CO	Gas sensitivity percentage measured at 400ppmCO	< 4
	H <sub>2</sub>	Gas sensitivity percentage $\text{H}_2\text{S}$ measured at 400ppmH	< 1
	C <sub>2</sub> H <sub>4</sub>	Gas sensitivity percentage $\text{H}_2\text{S}$ measured at 400ppmC	< 0.1
	NH <sub>3</sub>	Gas sensitivity percentage $\text{H}_2\text{S}$ measured 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	$\Omega$ ( recommend )	10~47
	weight	g	< 6

Figure 2 Sensitivity Temperature Characteristics

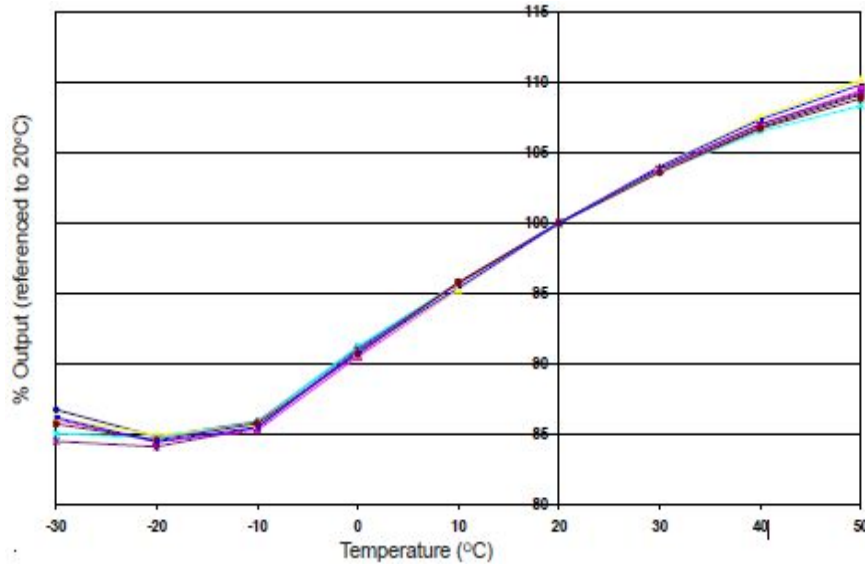


Figure 2 shows the change in sensor sensitivity caused by temperature changes.

Data was collected from typical batch sensors.

Figure 3 Zero Temperature Characteristics

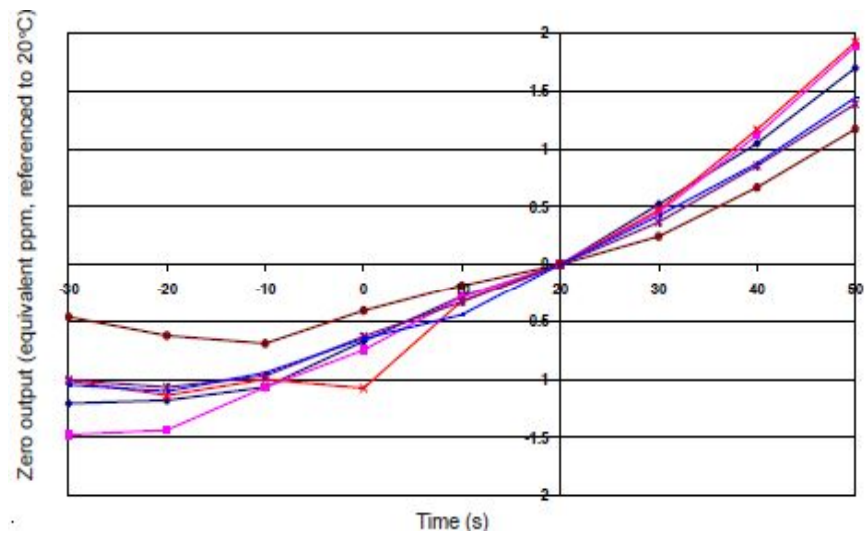


Figure 3 shows the change in zero point output caused by temperature changes, expressed as equivalent ppm values, with reference to the zero point at 20°C.

Data was taken from a typical batch of sensors.

Figure 4. Repeatability of Batch Sensor Outputs

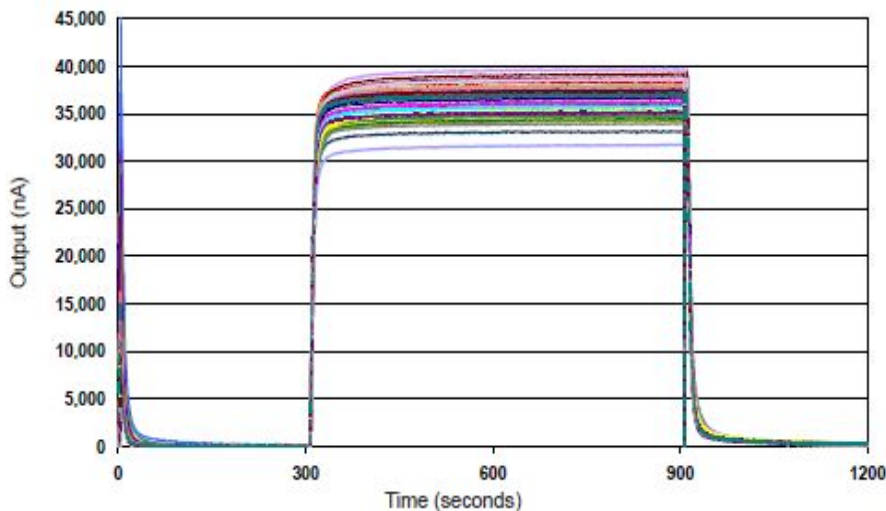


Figure 4 shows the response of 64 H2S-AE transducers to 400 ppm H2S. Good process control enables the sensor to have a repeatable zero point, fast response and stable output.

This data is derived from a typical batch of sensors.

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