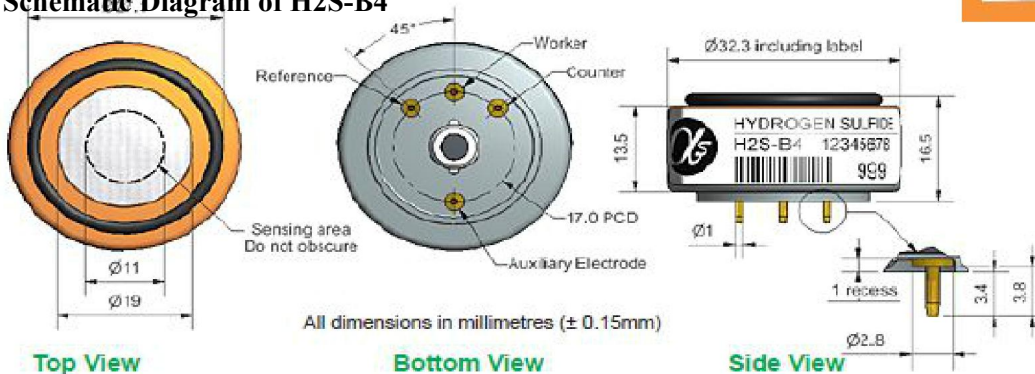


H2S-B4 Sulfur Dioxide Sensor Four- Electrode

Figure 1 Schematic Diagram of H2S-B4



function	sensitivity	Sensitivity in 2ppmH ₂ S (nA/ppm)	1450~2600
	reaction time	Time to t90 from zero to 2ppmH ₂ S (s)	< 60
	Zero current	Output at 20°C in zero grade air (nA)	-300~200
	noise *	Standard deviation ± 2 (equivalent ppb values)	1
	scope	Measuring limits (ppm) that guarantee product performance	100
	degree of linearity	The value of the full scale error in ppb is linear at 0~40ppm	< ± 4
	overload	Maximum ppm value of gas pulse stabilization reaction	200
* The test uses Alphasense ISB low noise circuit board			
life span	zero drift	Equivalent ppb values that change over the years in the laboratory air	< ± 100
	sensitivity drift	Percentage change in laboratory air over the year, measured monthly	< 20
	working life	Number of months to reduce output to 50% of original signal (guaranteed 24 months)	> 24
envir- onment	-20°C when sensitivity	(Output at -20°C / Output at 20°C)% at 2ppmH ₂ S	77~90
	Sensitivity at 50°C	2ppmH ₂ S, (output at 50°C / output at 20°C)%	100~110
	-20°C at the zero point	Change in nA value with reference to 20°C zero	50~60
	50°C at zero point	Change in nA value with reference to 20°C zero	-120~-160
cross sen- sitivity	NO ₂	Gas sensitivity percentage 2 at 5ppmNO	< -10
	Cl ₂	Gas sensitivity percentage 2 at 5ppmCl	< -12
	NO	Gas sensitivity percentage measured at 5ppmNO	< 12
	SO ₂	Gas sensitivity percentage 2 at 5ppmSO	< 20
	CO	Gas sensitivity percentage measured at 5ppmCO	< 3
	H ₂	Gas sensitivity percentage measured at 100ppmH ₂	< 0.5
	C ₂ H ₄	Sensitivity percentage of gas measured at 100ppmC ₂ H ₄	< 0.1
	NH ₃	Gas sensitivity percentage 3 measured at 5ppmNH	< 0.1
CO ₂	Gas sensitivity percentage measured at 5% CO ₂	< 0.1	
key param- eter	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 storage at 3~20°C (must be stored in a sealed tank) Ω (recommended to use ISB circuit board)	6
	load resistance	board)	33~100
	weight	g	< 13

Figure 2 Sensitivity Temperature Characteristics

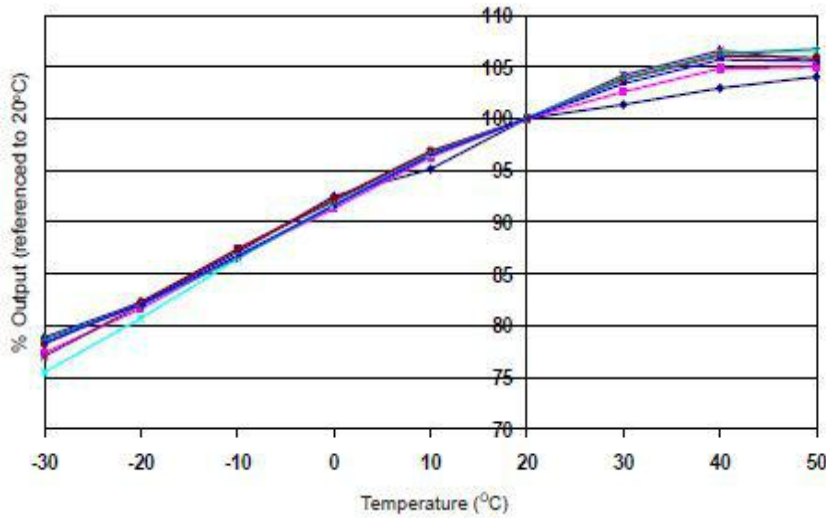


FIG. 2 shows the temperature dependence of sensitivity at 2 ppm H₂S.

Data was collected from typical batch sensors.

Figure 3 Zero Temperature Characteristics

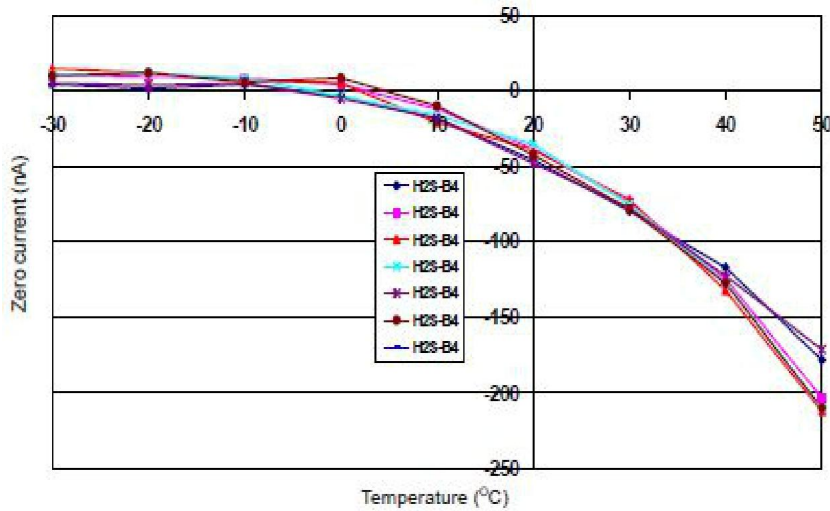


Figure 3 shows the zero point output variation of the working electrode caused by temperature change, in units of nA.

Data was collected from typical batch transmission

sense organ .

For more information about zero current correction, contact AlphaSense.

Figure 4 Linearity of H₂S from 0 to 200 Ppb

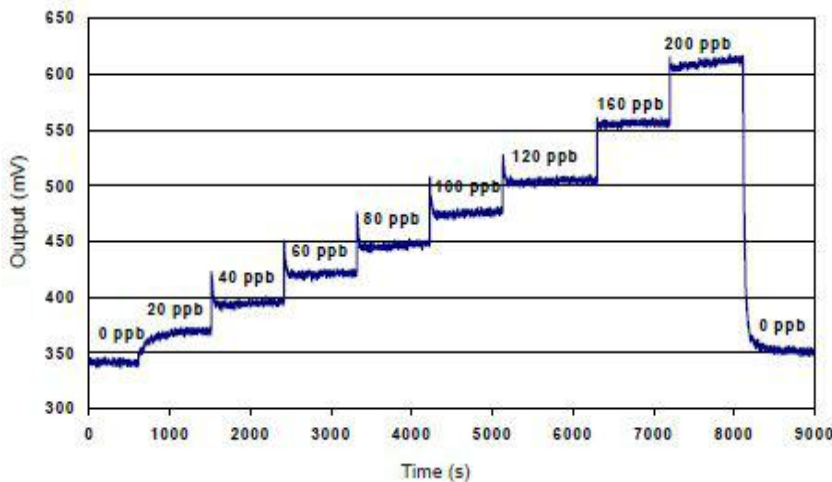


Figure 4 shows the response of the sensor in 0~200ppb H₂S.

The Alphasense ISB board reduces noise to 1ppb and can be further reduced using digital filtering.

深圳市杰晟兴电子有限公司 JM Components Limited

地址: 深圳市福田区中航路7号鼎诚国际大厦南座2007室
 手机: 13662266995 马少良 电话: 0755-83951311
 官网: cn-sensor.com

邮编: 518031
 传真: 0755-83952401
 电邮: jackson@jmcomponents.com