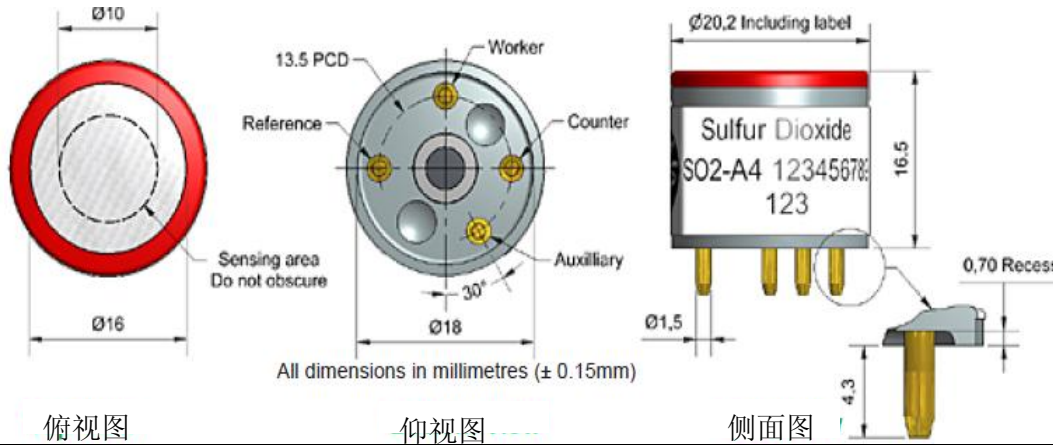


# S02-A4 二氧化硫传感器 四电极



Patented

图1 S02-A4图示



性能	灵敏度	2ppmS02, nA/ppm	320~480
	反应时间	t90 从零点到2ppmS02 (s)	<20
	零点电流	在20°C时零点空气中 (nA)	5~45
	噪声*	平均噪声 (ppb)	15
	检测极限*	ppb	15
	范围	S02质保检测范围 (ppm)	50
	线性度	20ppm误差, 0~2ppm时线性	0 ~ -5
	过载	对气体脉冲稳定反应最大的ppm	100
<b>*需要低噪声稳压电路以获得最低噪声及最好的分辨率</b>			
寿命	零点漂移	实验室空气中每年变化的ppb	< ±20
	灵敏度漂移	实验室空气中每年变化的百分比	< ±15
	工作寿命	输出下降至80%原始信号的时间 (月) (质保24个月)	>36
环境	-20° C时灵敏度	2ppm时, (-20° C时的输出/20° C时的输出) %	80~95
	50° C时灵敏度	2ppm时, (50° C时的输出/20° C时的输出) %	90~105
	-20° C时零点	参考20°C时ppm变化量	< ± 25
	50° C时零点	参考20°C时ppm变化量	150~300
交叉 灵敏度	Filter capacity	ppm·hrs	450
	H <sub>2</sub> S sensitivity	% measured gas @ 5ppm	H <sub>2</sub> S < 40
	NO <sub>2</sub> sensitivity	% measured gas @ 5ppm	NO <sub>2</sub> < -160
	Cl <sub>2</sub> sensitivity	% measured gas @ 5ppm	Cl <sub>2</sub> < -70
	NO sensitivity	% measured gas @ 5ppm	NO < -1.5
	CO sensitivity	% measured gas @ 5ppm	CO < 2
	H <sub>2</sub> sensitivity	% measured gas @ 100ppm	H <sub>2</sub> < 1
	C <sub>2</sub> H <sub>4</sub> sensitivity	% measured gas @ 100ppm	C <sub>2</sub> H <sub>4</sub> < 1
	NH <sub>3</sub> sensitivity	% measured gas @ 20ppm	NH <sub>3</sub> < 0.1
	CO <sub>2</sub> sensitivity	% measured gas @ 5%	CO <sub>2</sub> < 0.1
关键参数	温度范围	°C	-30 ~ 50
	压力范围	Kpa	80~120
	湿度范围	%rh	15~90
	存储期限	3~20°C密封保存期限 (月)	6
	负载电阻	Ω (推荐)	33~100

图2 灵敏度温度特性

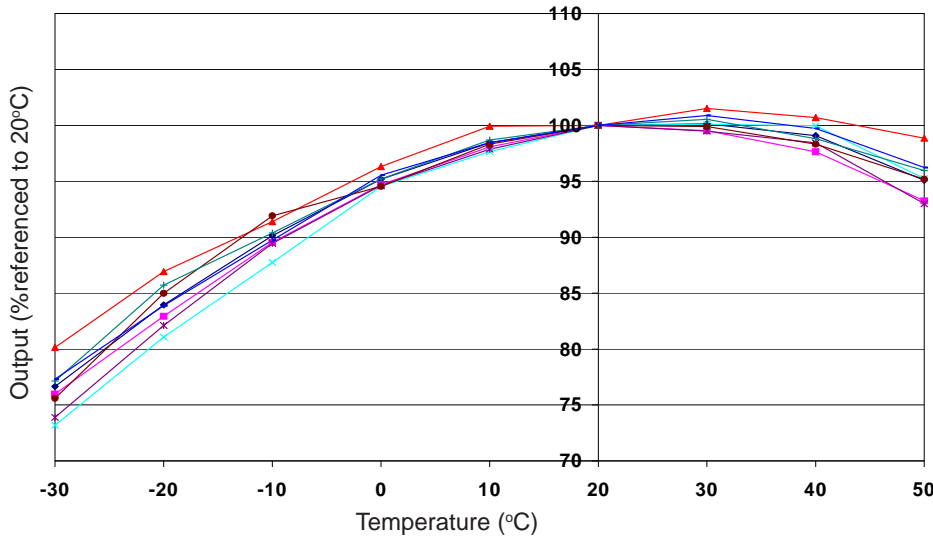


图2 显示温度变化所引起的灵敏度变化，以ppm表示，参考20°C时的零点。数据取自典型批次传感器。

图3 零点温度特性

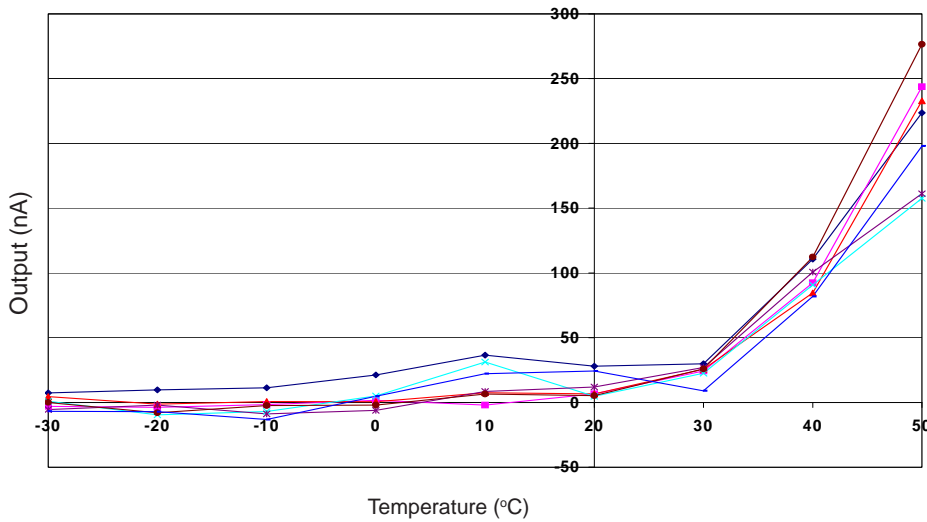


Figure 3 shows the variation in zero output of the working electrode caused by changes in temperature, expressed as nA.

This data is taken from a typical batch of sensors.

Contact Alphasense for further information on zero current correction.

图4 200ppb S02的反应

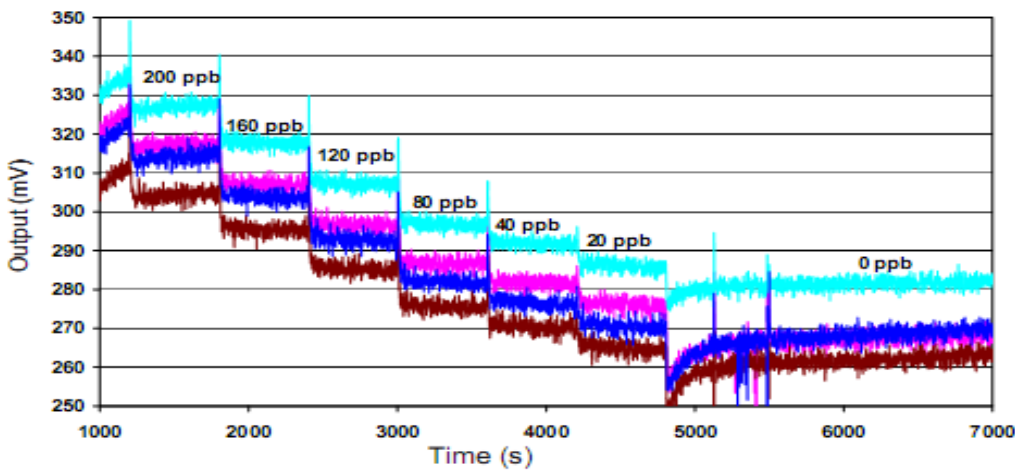


图4显示线性度变化。数据取自典型批次传感器。