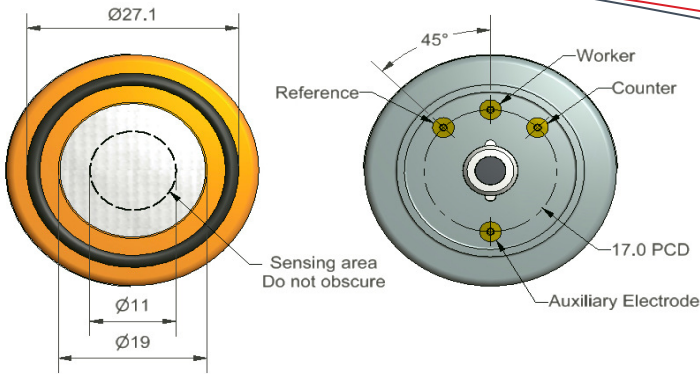




US³ H₂S 3ppb Sensor

Sensor Data Sheet



*For odor complaint monitoring,
odor surveys and environmental
odor management.*

Benefits:

- ◆ Low range H₂S detection, below the odor threshold
- ◆ Log as low as 3 ppb
- ◆ Gases monitoring anywhere and anytime

SENSOR US³ H₂S 3PB PERFORMANCE

Sensitivity	nA/ppm in 2 ppm H ₂ S	1400 to 2500
Response time	T90 (s) from zero to 1 ppm H ₂ S	< 50
Zero Current	nA in zero air at 20°C	-70 to -200
Noise	RMS noise (ppb equivalent)	< 4
Limit of Detection	Ppb equivalent	< 10
Range	Ppm H ₂ S limit of performance warranty	25
Linearity	Ppm error at full scale, linear at zero and 2ppm H ₂ S	-1 to +5

SENSOR US³ H₂S 3PB KEY SPECIFICATION

Temperature range	°C	-30 to 50
Pressure range	kPa	80 to 120
Humidity range	% rh	15 to 90

SENSOR US³ H₂S 3PB ENVIRONMENTAL

Sensitivity at -20°C	% (output at -20°C/output at 20°C) at 2ppm H ₂ S	77 to 85
Sensitivity at 50°C	% (output at 50°C/output at 20°C) at 2ppm H ₂ S	108 to 115
Zero at -20°C	ppm equivalent change from 20°C	<0 to 0.05
Zero at 50°C	ppm equivalent change from 20°C	0 to -0.1

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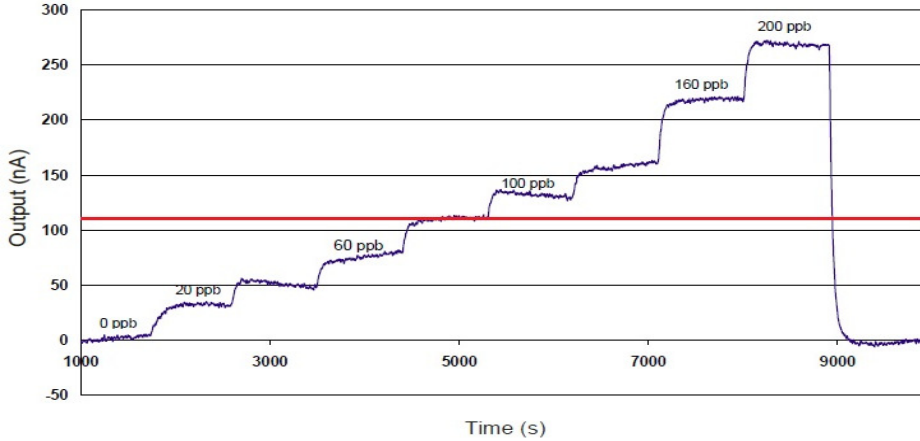
601 N Parkcenter Drive Suite 209 Santa Ana, CA 92705
 Phone : (714) 542-1004 Fax : (714) 542-1332
 www.uscubed.com Mail: sales@uscubed.com



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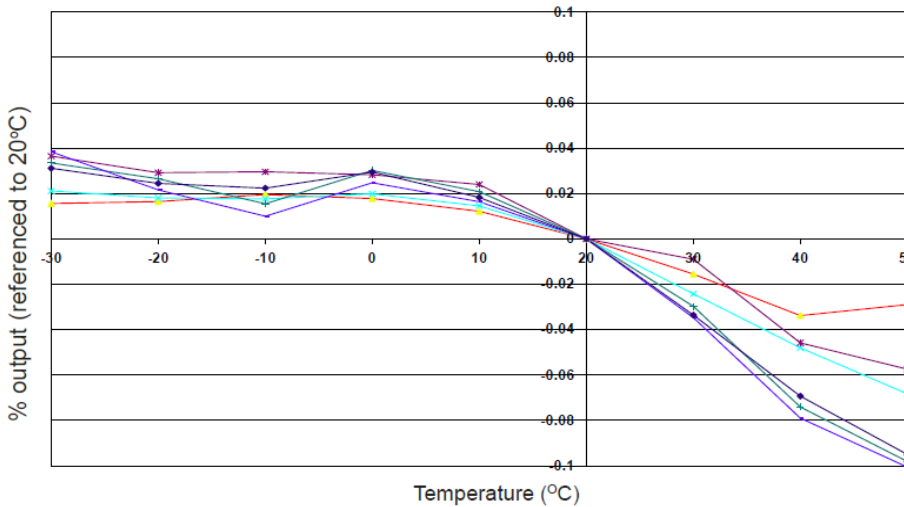
Sensor Data Sheet

Linearity to 200ppb H₂S



The US³ H₂S 3PB sensor responds linearly at low concentrations, showing repeatable performance at concentrations below 200ppb.

Zero temperature dependence (corrected)



This figure shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This excellent zero performance requires a low noise circuit and zero correction using the auxiliary electrode.

SENSOR US3 H₂S 3PB CROSS SENSITIVITY

NO ₂	Sensitivity % measured gas at 10ppm	NO ₂	< - 10
Cl ₂	Sensitivity % measured gas at 10ppm	Cl ₂	< - 25
NO	Sensitivity % measured gas at 10ppm	NO	< 35
SO ₂	Sensitivity % measured gas at 20ppm	SO ₂	< 18
CO	Sensitivity % measured gas at 10ppm	CO	< 3
H ₂	Sensitivity % measured gas at 400ppm	H ₂	< 0.5
C ₂ H ₄	Sensitivity % measured gas at 400ppm	C ₂ H ₄	< 0.5
NH ₃	Sensitivity % measured gas at 20ppm	NH ₃	< 0.1
CO ₂	Sensitivity % measured gas at 5%	CO ₂	< 0.1

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