

# RKI Sensor Specification

**Features:** Fast warm-up time  
Good zero stability  
Quick response time

**Part Number:**  
**Sensor Application:**

**Disilane (Si<sub>2</sub>H<sub>6</sub>)**  
ES-23AH-SIH4  
EAGLE, Fixed Systems

Technical Specifications			
Measuring Principle	Amperometric 3-electrode sensor	Accuracy	+/- 10 % of reading
Range of Measurement	0 – 15 ppm	Repeatability	+/- 5% of reading
Resolution	1% of full scale	T <sub>90</sub> Response time (20°C, 2 min. exposure)	90 seconds

Operating Conditions			
Temperature Range	-20°C to +45°C	Life Expectancy	2-3 Years
Humidity Range	10-95% RH, Non Condensing	Warranty	1 Year

## Known Gas Interferences

Gas	PPM Gas Applied	Reading
Acetone ((CH <sub>3</sub> ) <sub>2</sub> CO)	1.2% vol.	0.0
Ammonia (NH <sub>3</sub> )	150.0	0.0
Butyl Acid (CH <sub>3</sub> COO(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> )	1% vol.	0.0
Xylene (C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>3</sub> )	4,000	0.0
Arsine (AsH <sub>3</sub> )	1.04	4.9
Ethanol (C <sub>2</sub> H <sub>5</sub> OH)	1% vol.	0.0
Chlorine (Cl <sub>2</sub> )	2.0	-6.2
Diborane (B <sub>2</sub> H <sub>6</sub> )	1.0	0.4
Ethyl Acetate (CH <sub>3</sub> CO <sub>2</sub> H <sub>5</sub> )	4,000	0.4
Fluorine (F <sub>2</sub> )	3.0	-0.4
Hydrogen (H <sub>2</sub> )	1% vol.	0.8

Gas	PPM Gas Applied	Reading
Hydrogen Chloride (HCl)	1.0	0.9
Hydrogen Cyanide (HCN)	10.0	0.8
Hydrogen Fluoride (HF)	6.0	0.7
Hydrogen Sulfide (H <sub>2</sub> S)	1.0	4.1
I.P.A. ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	1% vol.	0.0
Nitric Acid (HN <sub>3</sub> )	10.0	-1.4
Phosphine (PH <sub>3</sub> )	0.5	4.4
Silane (SiH <sub>4</sub> )	8.0	3.3
Sulfur Dioxide (SO <sub>2</sub> )	5.0	0.4
Toluene (C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> )	1% vol.	0.0
Trichloroethylene (CHCl:CCl <sub>2</sub> )	1% vol.	0.0