

# RKI Sensor Specification

## Hydrazine (N<sub>2</sub>H<sub>4</sub>)

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

**Part Number:** ES-23E-N<sub>2</sub>H<sub>4</sub>  
**Sensor Application:** GD-K8A, GD-K7D2, Eagle

Technical Specifications			
<b>Measuring Principle</b>	Amperometric 3-electrode sensor	<b>Accuracy</b>	+/- 10% of reading or +/- 5% of full scale (whichever is greater)
<b>Range of Measurement</b>	0 – 5.0 ppm	<b>Repeatability</b>	+/- 5% of reading
<b>Resolution</b>	1% of full scale	<b>T<sub>90</sub> Response time (20°C, 2 min. exposure)</b>	90 seconds

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

## Known Gas Interferences

Gas	PPM Gas Applied	Reading
Acetone ((CH <sub>3</sub> ) <sub>2</sub> CO)	1% vol	0.9 ppm
Acetylene (C <sub>2</sub> H <sub>2</sub> )	43	2 ppm
Arsine (AsH <sub>3</sub> )	0.5	2 ppm
Carbon Dioxide (CO <sub>2</sub> )	99.9%	-0.02 ppm
Carbon Monoxide (CO)	300	0.11 ppm
Chlorine (Cl <sub>2</sub> )	10	-0.22 ppm
Diborane (B <sub>2</sub> H <sub>6</sub> )	20	2 ppm
Dimethyl Hydrazine ((CH <sub>3</sub> ) <sub>2</sub> N <sub>2</sub> H <sub>4</sub> )	4.0	26 ppm
Disilane (Si <sub>2</sub> H <sub>6</sub> )	4.4	2 ppm
Ethylene (C <sub>2</sub> H <sub>4</sub> )	244	2 ppm
Fluorine (F <sub>2</sub> )	11	-2 ppm
Germanium Tetrahydride (GeH <sub>4</sub> )	9	2 ppm
Hydrogen (H <sub>2</sub> )	9.8% vol	2 ppm
Hydrogen Bromide (HBr)	2.8	2 ppm
Hydrogen Chloride (HCl)	2.4	2 ppm

Gas	PPM Gas Applied	Reading
Hydrogen Cyanide (HCN)	15	1.64 ppm
Hydrogen Fluoride (HF)	10	0.65 ppm
Hydrogen Selenide (SeH <sub>2</sub> )	0.41	2 ppm
Hydrogen Sulfide (H <sub>2</sub> S)	27	2 ppm
Isopropyl Alcohol (IPA) ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	1% vol	0.22 ppm
Methanol (CH <sub>3</sub> OH)	1% vol	0.04 ppm
Methyl Hydrazine (CH <sub>3</sub> N <sub>2</sub> H <sub>4</sub> )	4.0	20 ppm
Nitric Oxide (NO)	9	2 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	14	2 ppm
Ozone (O <sub>3</sub> )	14	-2 ppm
Phosphine (Ph <sub>3</sub> )	0	2 ppm
Silane (SiH <sub>4</sub> )	20	2 ppm
Sulfur Dioxide (SO <sub>2</sub> )	10	2 ppm
Toluene (C <sub>7</sub> H <sub>8</sub> )	1% vol	2.0 ppm