

# RKI Sensor Specification

## Dimethylamine (C<sub>2</sub>H<sub>7</sub>N)

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

**Part Number:** ES-23RV-C<sub>2</sub>H<sub>7</sub>N  
**Sensor Application:** Fixed Systems

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>		<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
Ammonia (NH <sub>3</sub> )	23 ppm	30 ppm
Arsine (AsH <sub>3</sub> )	0.51 ppm	-0.1 ppm
Carbon Dioxide (CO <sub>2</sub> )	2,500 ppm	-0.5 ppm
Carbon Monoxide (CO)	100 ppm	0.0 ppm
Di-amylamine (CH <sub>3</sub> (CH <sub>2</sub> ) <sub>4</sub> NH(CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub> )	5 ppm	1.3 ppm
Diborane (B <sub>2</sub> H <sub>6</sub> )	5.34 ppm	1.2 ppm
Diethylenetriamine (NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> NH	30 ppm	0 ppm
Hydrogen (H <sub>2</sub> )	2% vol	2.3 ppm
Hydrogen (H <sub>2</sub> )	99.9% vol	95.2 ppm
Hydrogen Chloride (HCl)	20 ppm	-13 ppm

Gas	PPM Gas Applied	Reading
Hydrogen Sulfide (H <sub>2</sub> S)	33 ppm	2.1 ppm
Isopropyl Alcohol (IPA) ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	1% vol	1.3 ppm
Isopropyl Alcohol (IPA) ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	9.4% vol	0.7 ppm
Methanol (CH <sub>3</sub> OH)	1% vol	0 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	96 ppm	- 56.8 ppm
Phosphine (Ph <sub>3</sub> )	0.59 ppm	-0.2 ppm
Silane (SiH <sub>4</sub> )	13.9 ppm	-0.3 ppm
Sulfur Dioxide (SO <sub>2</sub> )	52 ppm	-22.1 ppm
Tri-amylamine (C <sub>5</sub> H <sub>11</sub> ) <sub>3</sub> N	5 ppm	0.7 ppm
Trimethylamine (CH <sub>3</sub> ) <sub>3</sub> N	6 ppm	4.5 ppm
t-butylamine (CH <sub>3</sub> ) <sub>3</sub> CNH <sub>2</sub>	5 ppm	3.5 ppm