

# RKI Sensor Specification

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

## Methyl Silane (CH<sub>3</sub>SiH<sub>3</sub>)

**Part Number:** ESM-23DH-MS  
**Sensor Application:** GD-K71D / GD-K77D

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 – 20 ppm	<b>Repeatability</b>	+/- 5% of reading
<b>Resolution</b>	1% of full scale	<b>T<sub>90</sub> Response time</b> (20°C, 2 min. exposure)	90 seconds

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

## Known Gas Interferences

Gas	PPM Gas Applied	Reading	Gas	PPM Gas Applied	Reading
Acetone ((CH <sub>3</sub> ) <sub>2</sub> CO)	1.0% Vol.	0.26 ppm	Hydrogen Selenide (SeH <sub>2</sub> )	16.2 ppm	5.0 ppm
Ammonia (NH <sub>3</sub> )	250 ppm	0.27 ppm	Hydrogen Sulfide (H <sub>2</sub> S)	10.0 ppm	5.0 ppm
Arsine (AsH <sub>3</sub> )	4.0 ppm	5.0 ppm	Isopropyl Alcohol (IPA) ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	1.00% Vol.	0.33 ppm
Carbon Dioxide (CO <sub>2</sub> )	99.99% Vol.	0.02 ppm	Methane (CH <sub>4</sub> )	100%	0.00 ppm
Carbon Monoxide (CO)	3800 ppm	5.0 ppm	Methyl Alcohol (CH <sub>3</sub> OH)	1.00%	0.00 ppm
Chlorine (Cl <sub>2</sub> )	22.3 ppm	-5.0 ppm	Nitrogen (N <sub>2</sub> )	99.99% Vol.	0.01 ppm
Diborane (B <sub>2</sub> H <sub>6</sub> )	13.8 ppm	5.0 ppm	Nitrogen Dioxide (NO <sub>2</sub> )	14.6 ppm	-5.00 ppm
Disilane (Si <sub>2</sub> H <sub>6</sub> )	2.9 ppm	5.0 ppm	Nitrogen Monoxide (NO)	100 ppm	-0.07 ppm
Ethyl Alcohol (C <sub>2</sub> H <sub>5</sub> OH)	1.00	0.02	Phosphine (Ph <sub>3</sub> )	3.2 ppm	5.0 ppm
Germane (GeH <sub>4</sub> )	3.4 ppm	5.0 ppm	Phosphorous Trifluoride (PF <sub>3</sub> )	17.7 ppm	5.00 ppm
Hydrogen (H <sub>2</sub> )	1.0% Vol.	3.85 ppm	Sulfur Dioxide (SO <sub>2</sub> )	12.3 ppm	5.0 ppm
Hydrogen Chloride (HCl)	44.6 ppm	5.0 ppm	Tetramethyl Silane (CH <sub>3</sub> ) <sub>4</sub> Si	150 ppm	0.00 ppm
Hydrogen Fluoride (HF)	6 ppm	0.01 ppm	Trimethyl Silane (CH <sub>3</sub> ) <sub>3</sub> HSi	34.6 ppm	5.0 ppm