

# RKI Sensor Specification

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

## Sulfur Dioxide (SO<sub>2</sub>)

**Part Number:** ESM-01DH-F-SO2  
**Sensor Application:** Direct Connect, S2, M2,  
Eagle 2, SC-01

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 – 6 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>	60 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
Arsine (AsH <sub>3</sub> )	1.1	0.1
Carbon Monoxide (CO)	1000	2.9
Chlorine (Cl <sub>2</sub> )	0.8	0.0
Diborane (B <sub>2</sub> H <sub>6</sub> )	4.8	3.6
Disilane (Si <sub>2</sub> H <sub>6</sub> )	14.8	1.1
Ethanol (C <sub>2</sub> H <sub>5</sub> OH)	1.0% Vol.	0.1
Germane (GeH <sub>4</sub> )	4.9	1.9
Hydrogen (H <sub>2</sub> )	2000	2.3
Hydrogen Chloride (HCl)	6.5	1.4

Gas	PPM Gas Applied	Reading
Hydrogen Selenide (H <sub>2</sub> Se)	4.5	0.0
Hydrogen Sulfide (H <sub>2</sub> S)	29	0.0
Isopropyl Alcohol (IPA) ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	1.0% Vol.	0.2
Methanol (CH <sub>3</sub> OH)	1.0% Vol.	0.1
Nitric Oxide (NO)	101	0.2
Nitrogen Dioxide (NO <sub>2</sub> )	5.1	-4.5
Ozone (O <sub>3</sub> )	0.64	-0.7
Phosphine (Ph <sub>3</sub> )	2.5	0.1
Silane (SiH <sub>4</sub> )	4.7	0.5

Note: Flow rate is 1 liter per min