

# RKI Sensor Specification

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

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

**Sulfur Dioxide (SO<sub>2</sub>)**  
 ES/ESM-23E-SO2  
 GD-K8A, GD-K7D2, GD-K71D,  
 Eagle, 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 – 30 ppm (or 0 – 15 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)	1.0% Vol.	0.23 ppm
Ammonia (NH <sub>3</sub> )	1.3% Vol.	10 ppm
Chlorine (Cl <sub>2</sub> )	180 ppm	-10 ppm
Ethylene (C <sub>2</sub> H <sub>4</sub> )	54 ppm	10 ppm
Hydrogen (H <sub>2</sub> )	2.1% Vol.	10 ppm

Gas	PPM Gas Applied	Reading
Hydrogen Chloride (HCl)	30 ppm	10 ppm
Hydrogen Sulfide (H <sub>2</sub> S)	2.8 ppm	10 ppm
Isopropyl Alcohol (IPA) ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	1.0% Vol.	1.5 ppm
Nitric Oxide (NO)	6.2 ppm	10 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	20 ppm	10 ppm

Part # Prefix	Applicable Instruments
ES	GD-K8A, GD-K7D2, Eagle
ESM	GD-K71D, GD-K77D