

# RKI Sensor Specification

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

**Part Number:** ES/ESM-K233-I2  
**Sensor Application:** EAGLE, GD-K8A, GD-K7D2,  
GD-K71D, GD-K77D

## Iodine (I2)

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 – 1ppm	<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
Acetic Acid (CH <sub>3</sub> COOH)	100.0	19.6
Ammonia (NH <sub>3</sub> )	39.4	0.0
Bromine (Br <sub>2</sub> )	1.0	1.2
Carbon Dioxide (CO <sub>2</sub> )	1% vol.	0.0
Carbon Monoxide (CO)	286.6	0.0
Chlorine (Cl <sub>2</sub> )	1.0	1.2
Chlorine Trifluoride (ClF <sub>3</sub> )	1.0	1.2
Ethanol (C <sub>2</sub> H <sub>5</sub> OH)	10% vol.	0.0
Fluorine (F <sub>2</sub> )	2.0	1.5
Hydrogen (H <sub>2</sub> )	99.9% vol.	0.0
Hydrogen Bromide (HBr)	5.6	0.2
Hydrogen Chloride (HCl)	3.0	2.4
Hydrogen Cyanide (HCN)	20.0	-0.5

Gas	PPM Gas Applied	Reading
Hydrogen Fluoride (HF)	6.0	5.5
Hydrogen Sulfide (H <sub>2</sub> S)	32.8	-0.1
Hydrogen Iodide (HI)	22.7	1.0
I.P.A. ((CH <sub>3</sub> ) <sub>2</sub> CHOH)	3% vol.	0.0
Methane (CH <sub>4</sub> )	99.9% vol.	0.0
Methanol (CH <sub>3</sub> OH)	10% vol.	0.0
Nitric Acid (HN0 <sub>3</sub> )	5.0	2.0
Nitrogen Dioxide (NO <sub>2</sub> )	101.0	3.6
Ozone (O <sub>3</sub> )	5.0	4.2
Phosgene (COCl <sub>2</sub> )	1.0	0.0
Phosphine (PH <sub>3</sub> )	1.1	0.0
Sulfur Dioxide (SO <sub>2</sub> )	10.0	3.1

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