

RKI Sensor Specification

Hydrogen Iodide (HI)

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

Part Number: ES-23E-HI
Sensor Application: EAGLE, Fixed Systems

Technical Specifications			
Measuring Principle	Amperometric 3-electrode sensor	Accuracy	+/- 10% of reading or +/- 5% of full scale (whichever is greater)
Range of Measurement	0 – 5 ppm	Repeatability	+/- 5% of reading
Resolution	1% of full scale	T₉₀ Response time (20°C, 2 min. exposure)	90 seconds

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

Known Gas Interferences

Gas	PPM Gas Applied	Reading
Acetylene (C ₂ H ₂)	210.0	5.0
Acetone ((CH ₃) ₂ CO)	2.07% vol.	1.3
Arsine (AsH ₃)	0.14	0.6
Carbon Dioxide (CO ₂)	99.9% vol.	0.0
Carbon Monoxide (CO)	287.0	0.1
Chlorine (Cl ₂)	10.0	-0.1
Diborane (B ₂ H ₆)	5.4	0.6
Disilane (Si ₂ H ₆)	15.6	7.4
Ethylene (C ₂ H ₄)	1,020.0	4.0
Fluorine (F ₂)	15.0	-2.4
Germanium Tetrahydride (GeH ₄)	1.6	0.4
Hydrogen (H ₂)	2.03% vol.	0.3
Hydrogen Bromide (HBr)	7.9	5.4

Gas	PPM Gas Applied	Reading
Hydrogen Chloride (HCl)	8.0	6.2
Hydrogen Fluoride (HF)	10.0	0.3
Hydrogen Selenide (SeH ₂)	1.0	4.7
Hydrogen Sulfide (H ₂ S)	2.6	0.2
I.P.A. ((CH ₃) ₂ CHOH)	1.51% vol.	0.1
Methanol (CH ₃ OH)	5.18% vol.	0.1
Nitric Oxide (NO)	98.4	16.6
Nitrogen Dioxide (NO ₂)	16.7	1.0
Ozone (O ₃)	6.0	-0.6
Phosphine (PH ₃)	1.0	4.1
Silane (SiH ₄)	14.1	1.6
Sulfur Dioxide (SO ₂)	50.7	7.5
Toluene (C ₆ H ₅ CH ₃)	.75% vol.	1.6