

RKI Sensor Specification

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

Hydrogen Chloride (HCl)

Part Number: ES/ESM/ESU-23E-HCl
Sensor Application: GD-K8A, GD-K7D2, GD-K71D, Eagle, GD-K77D, GD-70D

Technical Specifications			
Measuring Principle	Amperometric 3-electrode sensor	Accuracy	+/- 10% of reading or +/- 5% of full scale (whichever is greater)
Range of Measurement	0 – 6 ppm / 0 – 15 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
Acetone ((CH ₃) ₂ CO)	2% Vol.	1.6 ppm
Ammonia (NH ₃)	1.3%	30 ppm
Arsine (AsH ₃)	0.14	0.7 ppm
Carbon Dioxide (CO ₂)	99.9% Vol.	0 ppm
Carbon Monoxide (CO)	287	0.1 ppm
Chlorine (Cl ₂)	10.0	-0.1 ppm
Diborane (B ₂ H ₆)	5.4	0.7 ppm
Disilane (Si ₂ H ₆)	15.6	9.5 ppm
Fluorine (F ₂)	15.0	-3.1 ppm
Germanium Tetrahydride (GeH ₄)	1.6	0.5 ppm
Hydrogen (H ₂)	2.0% Vol.	0.4 ppm
Hydrogen Bromide (HBr)	7.9	6.9 ppm
Hydrogen Fluoride (HF)	10	0.4 ppm

Gas	PPM Gas Applied	Reading
Hydrogen Selenide (SeH ₂)	1.0	6.0 ppm
Hydrogen Sulfide (H ₂ S)	2.6	0.2 ppm
Isopropyl Alcohol (IPA) ((CH ₃) ₂ CHOH)	1.5% Vol.	0.2 ppm
Methanol (CH ₃ OH)	5.2% Vol.	0.1 ppm
Nitric Oxide (NO)	98.4	21.2 ppm
Nitrogen Dioxide (NO ₂)	16.7	1.3 ppm
Ozone (O ₃)	6.0	-0.8 ppm
Phosphine (Ph ₃)	1.0	5.3 ppm
Silane (SiH ₄)	14.1	2.0 ppm
Sulfur Dioxide (SO ₂)	50.7	9.6 ppm
Toluene (C ₇ H ₈)	0.75% Vol.	2.1 ppm

Part # Prefix	Applicable Instruments
ES	GD-K8A, GD-K7D2, Eagle
ESM	GD-K71D, GD-K77D
ESU	GD-70D