

RKI Sensor Specification

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

Part Number:
Sensor Application:

Phosphine (PH₃)
ES/ESM/ESU-23AH-PH3
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 – 1 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)	1% Vol.	0 ppm
Acetylene (C ₂ H ₂)	38 ppm	0.3 ppm
Arsine (AsH ₃)	0.44 ppm	0.3 ppm
Butyl Acetate (CH ₃ COO(CH ₂) ₃ CH ₃)	1.97% Vol.	0.15 ppm
Carbon Dioxide (Cl ₂)	99.9% Vol.	0.01 ppm
Carbon Monoxide (CO)	300 ppm	0.01 ppm
Chlorine (Cl ₂)	2.1 ppm	-0.3 ppm
Diborane (B ₂ H ₆)	5.9 ppm	0.3 ppm
Disilane (Si ₂ H ₆)	1.3 ppm	0.3 ppm
Ethylene (C ₂ H ₄)	1.5% Vol.	0.3 ppm
Ethyl Lactate (C ₅ H ₁₀ O ₃)	0.35% Vol.	0 ppm
Germane (GeH ₄)	1.6 ppm	0.3 ppm
Hydrogen (H ₂)	5.1% Vol.	0.3 ppm
Hydrogen Bromide (HBr)	13 ppm	0.3 ppm

Gas	PPM Gas Applied	Reading
Hydrogen Chloride (HCl)	12 ppm	0.3 ppm
Hydrogen Fluoride (HF)	71 ppm	0.3 ppm
Hydrogen Selenide (H ₂ Se)	0.52 ppm	0.3 ppm
Hydrogen Sulfide (H ₂ S)	0.51 ppm	0.3 ppm
Isopropyl Alcohol (IPA) ((CH ₃) ₂ CHOH)	1% Vol.	0.01 ppm
Methane (CH ₄)	100% Vol.	0 ppm
Methanol (CH ₃ OH)	1% Vol.	0 ppm
Nitrogen Dioxide (NO ₂)	2.6 ppm	-0.3 ppm
Nitrogen Monoxide (NO)	130 ppm	0.3 ppm
Ozone (O ₃)	2.2 ppm	-0.3 ppm
Silane (SiH ₄)	1.0	0.05
Sulfur Dioxide (SO ₂)	3.6 ppm	0.3 ppm
Toluene (C ₆ H ₅ CH ₃)	1% Vol.	0.01 ppm

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