

RKI Sensor Specification

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

Hydrogen Bromide (HBr)

Part Number: ES-23E-HBR
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 – 9 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 | 7.6 |
| Acetone ((CH ₃) ₂ CO) | 2.07% vol. | 2.0 |
| Arsine (AsH ₃) | 0.14 | 0.8 |
| Carbon Dioxide (CO ₂) | 99.9% vol. | 0.0 |
| Carbon Monoxide (CO) | 287.0 | 0.2 |
| Chlorine (Cl ₂) | 10.0 | -0.2 |
| Diborane (B ₂ H ₆) | 5.4 | 0.8 |
| Disilane (Si ₂ H ₆) | 7.8 | 5.7 |
| Ethylene (C ₂ H ₄) | 1,020.0 | 6.1 |
| Fluorine (F ₂) | 15.0 | -3.7 |
| Germanium Tetrahydride (GeH ₄) | 1.6 | 0.6 |
| Hydrogen (H ₂) | 2.03% vol. | 0.5 |
| Hydrogen Chloride (HCl) | 5.0 | 6.0 |

| Gas | PPM Gas Applied | Reading |
|--|-----------------|---------|
| Hydrogen Fluoride (HF) | 10.0 | 0.5 |
| Hydrogen Selenide (SeH ₂) | 1.0 | 7.2 |
| Hydrogen Sulfide (H ₂ S) | 2.6 | 0.3 |
| I.P.A. ((CH ₃) ₂ CHOH) | 1.51% vol. | 0.3 |
| Methanol (CH ₃ OH) | 5.18% vol. | 0.2 |
| Nitric Oxide (NO) | 20.0 | 5.0 |
| Nitrogen Dioxide (NO ₂) | 16.7 | 1.6 |
| Ozone (O ₃) | 6.0 | -0.9 |
| Phosphine (PH ₃) | 1.0 | 6.4 |
| Silane (SiH ₄) | 14.1 | 2.4 |
| Sulfur Dioxide (SO ₂) | 10.0 | 2.7 |
| Toluene (C ₆ H ₅ CH ₃) | 0.75% vol. | 2.5 |