

RKI Sensor Specification

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

Part Number:
Sensor Application:

Fluorine (F₂)
ES/ESM/ESU-K233-F2
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 – 3 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 |
|--|-----------------|---------|
| Acetic Acid (CH ₃ COOH) | 100.0 | 25.3 |
| Ammonia (NH ₃) | 39.4 | 0.0 |
| Bromine (Br ₂) | 1.0 | 1.5 |
| Carbon Dioxide (CO ₂) | 1.0% Vol. | 0.0 |
| Carbon Monoxide (CO) | 286.6 | 0.0 |
| Chlorine (Cl ₂) | 1.0 | 1.6 |
| Chlorine Trifluoride (ClF ₃) | 1.0 | 1.3 |
| Ethanol (C ₂ H ₅ OH) | 10.0% Vol. | 0.0 |
| Hydrogen (H ₂) | 99.9% Vol. | 0.0 |
| Hydrogen Bromide (HBr) | 5.6 | 0.2 |
| Hydrogen Chloride (HCl) | 3.0 | 3.1 |
| Hydrogen Cyanide (HCN) | 20.0 | -0.6 |

| Gas | PPM Gas Applied | Reading |
|---|-----------------|---------|
| Hydrogen Fluoride (HF) | 6.0 | 7.1 |
| Hydrogen Sulfide (H ₂ S) | 32.8 | -0.1 |
| I.P.A. ((CH ₃) ₂ CHOH) | 3.0% Vol. | 0.0 |
| Iodine (I ₂) | 1.0 | 1.3 |
| Methane (CH ₄) | 99.9% Vol. | 0.0 |
| Methanol (CH ₃ OH) | 10.0% Vol. | 0.0 |
| Nitric Acid (HN0 ₃) | 5.0 | 2.6 |
| Nitrogen Dioxide (NO ₂) | 101.0 | 4.6 |
| Ozone (O ₃) | 5.0 | 5.3 |
| Phosgene (COCl ₂) | 1.0 | 0.0 |
| Phosphine (PH ₃) | 1.1 | 0.0 |
| Sulfur Dioxide (SO ₂) | 10.0 | 3.1 |

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