

RKI Sensor Specification

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

Hydrogen Selenide (H₂Se)

Part Number: ES/ESU-23SD-H2SE
Sensor Application: GD-K8A, Eagle, GD-K7D2, 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 – 0.20 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 | 0.019 ppm |
| Ammonia (NH ₃) | 310 ppm | 0.05 ppm |
| Arsine (AsH ₃) | 0.11 ppm | 0.05 ppm |
| Carbon Monoxide (CO) | 0.5% vol | 0.05 ppm |
| Chlorine (Cl ₂) | 0.16 ppm | -0.05 ppm |
| Diborane (B ₂ H ₆) | 3.2 ppm | 0.05 ppm |
| Disilane (Si ₂ H ₆) | 0.72 ppm | 0.05 ppm |
| Germanium Tetrahydride (GeH ₄) | 0.62 ppm | 0.05 ppm |
| Hydrogen (H ₂) | 0.74% vol | 0.05 ppm |

| Gas | PPM Gas Applied | Reading |
|--|-----------------|-----------|
| Hydrogen Chloride (HCl) | 0.26 ppm | 0.05 ppm |
| Hydrogen Sulfide (H ₂ S) | 0.056 ppm | 0.05 ppm |
| Isopropyl Alcohol (IPA) ((CH ₃) ₂ CHOH) | 1% vol | 0.013 ppm |
| Nitric Oxide (NO) | 160 ppm | -0.05 ppm |
| Nitrogen Dioxide (NO ₂) | 0.21 ppm | -0.05 ppm |
| Ozone (O ₃) | 0.23 ppm | -0.05 ppm |
| Phosphine (Ph ₃) | 0.08 ppm | 0.05 ppm |
| Silane (SiH ₄) | 1.5 ppm | 0.05 ppm |
| Sulfur Dioxide (SO ₂) | 1.8 ppm | 0.05 ppm |

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