

RKI Sensor Specification

Phosphine (PH₃)

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

Part Number: ES-23AH-PH3
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 | 0-1.00 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) | 1.2% vol. | 0.0 |
| Ammonia (NH ₃) | 150.0 | 0.0 |
| Arsine (AsH ₃) | 1.0 | 0.47 |
| Butyl Acetate (CH ₃ COO(CH ₂) ₃ CH ₃) | 1.0% vol. | 0.0 |
| Chlorine (Cl ₂) | 1.0 | -0.6 |
| Chlorine Trifluoride (ClF ₃) | | |
| Diborane (B ₂ H ₆) | 10.0 | 0.38 |
| Disilane (Si ₂ H ₆) | 1.0 | 0.06 |
| Fluorine (F ₂) | 3.0 | 0.0 |
| Hydrogen Chloride (HCl) | 1% vol. | 0.09 |

| Gas | PPM Gas Applied | Reading |
|---|-----------------|---------|
| Hydrogen Cyanide (HCN) | 10.0 | 0.08 |
| Hydrogen Selenide (SeH ₂) | 0.1 | 0.21 |
| Hydrogen Sulfide (H ₂ S) | 1.0 | 0.5 |
| Isopropyl Alcohol (IPA) ((CH ₃) ₂ CHOH) | 1% vol. | 0.0 |
| Nitric Oxide (NO) | 8.0 | -0.4 |
| Silane (SiH ₄) | 1.0 | 0.05 |
| Sulfur Dioxide (SO ₂) | 5.0 | 0.06 |
| 1,1,1-Trichloroethane (C ₂ H ₃ Cl ₃) | 1.0% vol. | 0.0 |
| Toluene (C ₇ H ₈) | 1.0% vol. | 0.0 |
| Xylene (C ₈ H ₁₀) | 0.4% vol. | 0.0 |