

# RKI Sensor Specification

## Hydrogen Cyanide (HCN)

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

**Part Number:** ES/ESM/ESU-23DH-HCN  
**Sensor Application:** GD-K8A, GD-K7D2, Eagle,  
 GD-K71D, GD-K77D, GD-70D

| Technical Specifications    |                                 |   |   |
|-----------------------------|---------------------------------|---|---|
| <b>Measuring Principle</b>  | Amperometric 3-electrode sensor | <b>Accuracy</b>   | +/- 10% of reading or<br>+/- 5% of full scale<br>(whichever is greater) |
| <b>Range of Measurement</b> | 0 – 30 ppm / 0 – 15 ppm         | <b>Repeatability</b>  | +/- 5% of reading   |
| <b>Resolution</b>           | 1% of full scale                | <b>T<sub>90</sub> Response time<br/>(20°C, 2 min. exposure)</b> | 90 seconds  |

| Operating Conditions     |                           |                        |           |
|--------------------------|---------------------------|------------------------|-----------|
| <b>Temperature Range</b> | -20°C to +45°C            | <b>Life Expectancy</b> | 2-3 Years |
| <b>Humidity Range</b>    | 10-95% RH, Non Condensing | <b>Warranty</b>        | 1 Year    |

## Known Gas Interferences

| Gas  | PPM Gas Applied | Reading |
|--|-----------------|---------|
| Acetone ((CH <sub>3</sub> ) <sub>2</sub> CO) | 30.07% Vol.     | 15 ppm  |
| Ammonia (NH <sub>3</sub> )                   | 7750 ppm        | 15 ppm  |
| Carbon Monoxide (CO)                         | 1430 ppm        | 15 ppm  |
| Chlorine (Cl <sub>2</sub> )                  | 10.4 ppm        | -15 ppm |
| Ethylene (C <sub>2</sub> H <sub>4</sub> )    | 616 ppm         | 15 ppm  |
| Hydrogen (H <sub>2</sub> )                   | 0.33% Vol.      | 15 ppm  |
| Hydrogen Chloride (HCl)                      | 56.66 ppm       | 15 ppm  |

| Gas   | PPM Gas Applied | Reading |
|---|-----------------|---------|
| Hydrogen Sulfide (H <sub>2</sub> S)                               | 4.49 ppm        | 15 ppm  |
| Isopropyl Alcohol (IPA)<br>((CH <sub>3</sub> ) <sub>2</sub> CHOH) | 9.89% Vol.      | 15 ppm  |
| Nitric Oxide (NO)   | 3360 ppm        | 15 ppm  |
| Nitrogen Dioxide (NO <sub>2</sub> )                               | 5.25 ppm        | -15 ppm |
| Ozone (O <sub>3</sub> )   | 4.42 ppm        | -15 ppm |
| Silane (SiH <sub>4</sub> )  | 2.64 ppm        | 15 ppm  |
| Sulfur Dioxide (SO <sub>2</sub> )                                 | 5.81 ppm        | 15 ppm  |

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