



INSTRUMENTS

# INERT ATMOSPHERE GAS MONITOR

Gas Detection For Life

EAGLE 2 Inert Monitor



## Features

- Designed for catalyst operations at refineries
- Infrared (IR) Sensor for % LEL CH<sub>4</sub>
  - Operates without the presence of O<sub>2</sub> unlike traditional catalytic sensors)
- Inert mode monitors for rising O<sub>2</sub> levels
- User select “Normal” or “Inert” mode
- Preset alarm values for each mode type
- External high capacity dust filter
- Multilingual (5 languages)
- Powerful long-life pump up to 125’ range
- Low flow pump shut off and alarm
- Alkaline 18 hours or NiMH 20 hours capability
- Password protection
- Datalogging standard
- Autocalibration / single gas calibration
- Internal hydrophobic dust filter
- External probe with hydrophobic filter
- Ergonomic RFI / EMI / chemical / weather resistant enclosure
- Intrinsically safe design, CSA approval

It is important to use the proper type of gas meter while working in an inert atmosphere. Inert atmospheres are created when oxygen is displaced by an inert gas, and often a high concentration of explosive gas may be present. An example of an inert atmosphere is the nitrogen purged catalyst units at refineries. When workers perform any catalyst handling functions in the reactors, special precautions are taken for their inert entry. In these low oxygen conditions, a standard catalytic bead sensor used for combustible gas detection does not operate correctly. RKI’s Eagle 2 uses an infrared (IR) sensor to detect combustible gas from 0-100% LEL. IR technology does not require oxygen for operation.

In addition to monitoring for combustible gases, the Eagle 2 has the ability to monitor for rising O<sub>2</sub> concentrations and toxic gases H<sub>2</sub>S and CO. The CO sensor will act as dual sensor for both carbon monoxide and hydrogen. Upon start up of the meter, the user selects either normal or inert mode to select the proper alarm levels for the application. With its powerful pump the Eagle 2 can be used with up to a 125’ hose, allowing the meter to stay with the hole attendant while monitoring the working conditions inside the cracking unit.

The Eagle 2 has the sensor technology needed for inert entry and is designed to withstand the extreme conditions surrounding the catalyst operations.

Simplify maintenance and record keeping with the Eagle 2’s docking and calibration station, the SDM-E2. Automatically charge bump test, calibrate, and archive instrument records using the SDM-E2.

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World Leader In Gas Detection & Sensor Technology  
www.rkiinstruments.com

# EAGLE 2 Inert Monitor

Specifications	
<b>Enclosure</b>	Weatherproof, chemical resistant, RFI / EMI coated high impact polycarbonate-PBT blend. Can operate in 2.0" of water without leakage. Ergonomically balanced with rugged top mounted handle. Water & dust resistant equivalent to IP64.
<b>Dimensions</b>	9.5" L x 5.25" W x 5.875" H
<b>Weight</b>	3.8 Lbs (standard 4 gas with batteries).
<b>Sampling Method</b>	Powerful, long-life internal pump (over 6,000 hours) can draw samples over 125 feet. Flow rate approximately 2.0 SCFH.
<b>Display</b>	3 display modes: display all gases, large font-autoscroll, or large font-manual scroll. Polyurethane protected overlay. Backlight, illuminates for alarms and by demand, with adjustable time.
<b>Language</b>	Readout can display in 5 languages (English, French, German, Italian, or Spanish).
<b>Alarms</b>	2 Alarms per channel plus TWA and STEL alarms for toxics. The two alarms are fully adjustable for levels, latching or self reset, and silenceable.
<b>Alarm Method</b>	Buzzer 95 dB at 30 cm, four high intensity LED's.
<b>Controls</b>	4 External glove friendly push buttons for operation, demand zero, and autocalibration. Buttons also access LEL/ppm, alarm silence, peak hold, TWA/STEL values, battery status, conversion factors, and many other features.
<b>Continuous Operation</b>	At 70°F, 18 hours using alkaline batteries, or 20 hours using NiMH.
<b>Power Source</b>	4 alkaline or NiMH, size C batteries (Charger has alkaline recognition to prevent battery damage if charging is attempted with alkalines).
<b>Operating Temp. &amp; Humidity</b>	-20°C to 50°C (-4°F to 122°F), 0 to 95% RH, non-condensing.
<b>Environmental</b>	IP-64 Water resistant
<b>Response Time</b>	30 Seconds to 90% (for most gases) using standard 5 ft hose.
<b>Safety Rating</b>	Intrinsically Safe, Class I, Groups A, B, C, D. Approvals: CSA / CE
<b>Standard Accessories</b>	Shoulder strap, alkaline batteries, hydrophobic probe, and 5 foot hose, internal hydrophobic filter.
<b>Optional Accessories</b>	<ul style="list-style-type: none"> <li>• Calibration station</li> <li>• NiMH batteries</li> <li>• Battery charger, 115 VAC, 220 VAC, or 12 VDC (charge time 4 hours)</li> <li>• Continuous operation adapter, 115 VAC or 12 VDC</li> <li>• Calibration kits</li> <li>• Extension hoses</li> </ul>
<b>Warranty</b>	Two year material and workmanship.

Gas	Measuring Range	Accuracy * Which ever is greater
<b>Gases &amp; Detectable Ranges</b>		
Oxygen (O <sub>2</sub> )	0 - 40% Vol.	± 0.5% O <sub>2</sub>
Carbon Monoxide (CO)	0 - 500 ppm	± 5% of reading or ± 5 ppm CO (*)
Hydrogen Sulfide (H <sub>2</sub> S)	0 - 100 ppm	± 5% of reading or ± 2 ppm H <sub>2</sub> S (*)
<b>IR Sensors</b>		
Methane (CH <sub>4</sub> )	0 - 100% LEL	± 5% of reading or ± 2% of full scale (*)

## Calibration Station



Stand Alone



Multi Module System

**Part#**  
724-001-IR-CAT

**Description**  
EAGLE 2 for CH<sub>4</sub> % LEL (IR) / O<sub>2</sub> / H<sub>2</sub>S / CO, inert mode for catalyst applications

Other configurations available.

Specifications subject to change without notice.

Made in the USA



10000363



ISO 9001

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**Authorized Distributor:**