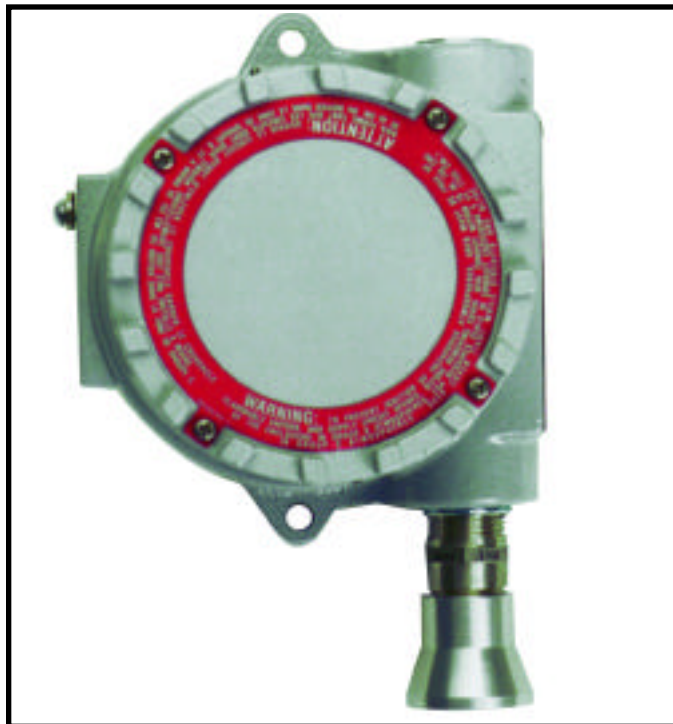


4-20mA GAS SENSOR/TRANSMITTER

Gas Detection For Life

“S” Series



Features

- Explosion proof housing
- Patented water repellent sensor coating
- Operates independent of a controller
- Available for LEL, H₂S, CO, O₂, and ppm HC
- Long life sensors (2 + years typical)
- Competitively priced

Industry Applications

- Petrochemical plants
- Refineries
- Offshore Drilling Platforms
- Water & wastewater treatment plants
- Pulp & paper mills
- Gas, telephone, & electric utilities
- Parking garages
- Manufacturing facilities
- Steel
- Automotive
- Chemical storage buildings

The RKI “S” series gas sensor/transmitters are highly reliable and very cost effective basic 4-20 mA transmitters for detection of common gas hazards. The “S” series transmitters are available for LEL, Oxygen, H₂S, CO, or for 0 - 500 ppm Hydrocarbon detection (for various fuels or solvents). The electronics are encased inside a potted package to avoid damage from mechanical abuse or corrosion, and the amplifier is installed inside an explosion-proof enclosure. Sensors for LEL, H₂S, CO, and ppm HC are explosion-proof with flame arrestors. The Oxygen sensor utilizes an internal I.S. barrier, so all 5 versions are designed for use in hazardous atmospheres.

The only tools required to calibrate the “S” series are a voltmeter, screwdriver, and cal gas. The zero and calibration functions are performed by adjusting potentiometers on the amplifiers. The amplifier has test jacks for connection of a voltmeter for calibration purposes, and the sensor response is viewed on the voltmeter as a 100mV to 500mV signal. Field calibration can be performed easily and quickly by one person.

The “S” series transmitters can be used either indoors or outdoors. The flame arrestors utilize a patented coating which makes them water repellent, and splash guards are also available for use in very wet environments.

The transmitter operates from 24 VDC (10.5VDC to 30 VDC), and provides a 4-20mA signal which can be connected to a wide variety of controllers.

"S" Series

Part #	LEL 65-2400RK	O ₂ 65-2504RK	H ₂ S 65-2422RK	CO 65-2432RK	HC 65-2460RK
Min Operating Voltage	10 VDC	10.5 VDC	10 VDC	10 VDC	10 VDC
Max Operating Voltage	30 VDC	30 VDC	30 VDC	30 VDC	30 VDC
Max Current Draw	200 mA (power wires) 25 mA(signal wires) 3 or 4 wires	25 mA (2 wire system)	25 mA (2 wire system)	25 mA (2 wire system)	100 mA (power wires) 25 mA(signal wires) 3 wires
Signal Output	4 mAAt 0% LEL 20 mAAt 100% LEL	4 mA at 0 % Oxygen 20 mA at 25% Oxygen	4 mAAt 0 ppm H ₂ S 20 mA at 100 ppm H ₂ S	4 mAAt 0 ppm CO 20 mA at 500 ppm CO	4 mAAt 0 ppm 20 mAAt 500 ppm Hexane. Linear.
Response Time	30 seconds to 90% of concentration	20 seconds to 90% of concentration	45 seconds to 90% of concentration	30 seconds to 90% of concentration	30 seconds to 90% of concentration
Operating Environment					
Location	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, and D.	Indoor or outdoor. Explosion proof housing and intrinsi- cally safe sensor.	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, and D.	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, and D.	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, and D.
Temperature	-40 to 185° F	30 to 120° F	0 to 120° F	0 to 120° F	30 to 120° F
Humidity	0 - 99% RH, non condensing	0 - 99% RH, non condensing	0 - 99% RH, non condensing	0 - 99% RH, non condensing	5 - 95% RH, non condensing
Housing	Aluminum Explosion proof enclosure	Aluminum Explosion proof enclosure	Aluminum Explosion proof enclosure	Aluminum Explosion proof enclosure	Aluminum Explosion proof enclosure
Sensor					
Type	Catalytic Combustion	Galvanic Cell	Electrochemical	Electrochemical	Metal Oxide Semiconductor
Life Expectancy	1 to 2 years normal service when inter- mittently exposed to flammable gas in air mixtures	2 years normal ser- vice	2 years normal ser- vice when intermit- tently exposed to H ₂ S	2 to 3 years normal service	5 to 10 years typical
Controls					
Sensor Current	Factory set and sealed	-	-	-	Factory set and sealed
Zero	Sets transmitter out- put to 4 mA with 0% LEL output from combustible sensor	Sets transmitter out- put to 4 mA with an inert gas (zero) out- put from O ₂ sensor	Sets transmitter output to 4 mAwith zero output from H ₂ S sensor	Sets transmitter output to 4 mAwith zero output from CO sensor	Sets transmitter output to 4 mAwith zero ppm output from sensor
Span	Sets transmitter out- put to 20 mAwith 100% LEL output from combustible sensor	Sets transmitter out- put to 17.44 mAwith 21% VOL O ₂ (fresh air) output from O ₂ sensor	Sets transmitter output to 20 mA with 100 ppm out- put from H ₂ S sen- sor	Sets transmitter output to 20 mA with 500 ppm out- put from CO sen- sor	Sets transmitter output to 20 mAwith 500 ppm Hexane (typical) output from sensor
Tools Needed	Screwdriver and voltmeter used to make adjustments	Screwdriver and voltmeter used to make adjustments	Screwdriver and voltmeter used to make adjustments	Screwdriver and voltmeter used to make adjustments	Screwdriver and volt- meter used to make adjustments

Specifications subject to change without notice.

Made in the USA