

4-20 mA GAS SENSOR/TRANSMITTER

Gas Detection for Life

“S” Series – Oxygen



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

Applications

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

The Control Equipment/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. The Oxygen sensor utilizes an internal I.S. barrier, so can be used 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.



RIKEN KEIKI

"S" Series – Oxygen

Part No:	R65-2504RK
Min Operating Voltage:	11V DC
Max Operating Voltage:	30V DC
Max Current Draw:	25 mA (2 wire system)
Signal Output:	4-20 mA
Response Time:	20 seconds to 90% concentration
Operating Environment	
Location:	Indoor or Outdoor
Temperature:	0-50° C
Humidity:	0-99% Non-condensing
Enclosure	
Rating:	IP66
Certifications:	Hazardous Areas CENELEC EEx d IIC CSA, UL and FM Class I, Zones 1 & 2, Groups IIB + H2, IIA
Sensor	
Type:	Galvanic
Detection Method:	Diffusion
Range:	0-25% Vol
Life Expectancy:	2-3 Years Normal Service
Notes:	Intrinsically Safe Design (Not certified)
Controls	
Zero:	Sets transmitter output to 4mA with an Inert (Zero) Gas
Span:	Sets transmitter output to 17.44mA with 20.9% Vol O2 (Fresh Air) Gas
Tools Required:	Screwdriver and Voltmeter used to make adjustments
Wiring	
Wiring:	1.5mm ² 2-core Shielded Instrument Cable
Cable Entry:	3/4" NPT

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