



SINGLE CHANNEL WALL MOUNT CONTROLLER

Gas Detection For Life

Beacon™ 110 Model



Features

- Low cost versatile solution
- Compact, weatherproof, NEMA 4X enclosure
- 115/220 VAC or 24 VDC operation
- Long life sensors (2+ years typical)
- Accepts RKI LEL/O₂/CO₂/toxic direct connect sensors
- Accepts any 4-20 mA transmitter
- Audible alarm with reset button
- Two programmable alarm levels
- Built-in trouble alarm with relay
- Relay rating 10 amps, form C
- Provides 4-20 mA output
- Optional Strobe

Industry Applications

- Petrochemical plants
- Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Gas, telephone, & electric utilities
- Parking garages
- Manufacturing facilities
- Steel
- Automotive
- HVAC

Gas detection should not be complicated. The Beacon 110 is gas detection simplified.

The Beacon 110 is a powerful, low cost fixed system controller for one point of gas detection. It is microprocessor controlled, simple to install and operate, and priced to be the industry's best value single gas detection controller. It is capable of accepting RKI sensors directly for LEL level combustibles, oxygen, CO₂, and toxic gas sensors. The Beacon 110 can also accept any 4-20 mA transmitter (2 or 3 wire, 24 VDC). Sensors can be mounted directly at the Beacon 110 housing, or can be wired remote from the controller.

The 10 amp rated relay contacts allow direct control of external alarms and horns. The digital display has backlighting and simultaneous readout of the gas type and concentration.

The Beacon 110 is also housed in a NEMA 4X rated case for a weather tight seal. This case design complies with lock out / tag out standards and can be fully secured. An external reset switch allows the alarm to be silenced from outside of the controller housing. The Beacon 110 ships complete with a wall mounting kit for easy installation.

RKI offers the industry's widest selection of standard and toxic gas detection sensors, all of which can be utilized with the Beacon 110, providing gas monitoring protection for almost any application.

RKI Instruments, Inc. • 33248 Central Ave. Union City, CA 94587 • Phone (800) 754-5165 • (510) 441-5656 • Fax (510) 441-5650

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

Beacon™ 110 Model

Physical

Dimensions	Height: 8.5" 216 mm Width: 7.0" 178 mm Depth: 4.3" 109 mm
Enclosure	Wall mounting grey fiberglass with hinged cover
Conduit Connection	3/4" NPT conduit hubs, 2 provided. 1 for sensor wiring and 1 for power & relay wiring
Wiring Termination	Screw type terminal block, 14 gauge max.
Power	Universal 115 VAC & 220 VAC, or 24 VDC nominal, battery backup option available
Controls	3 internal push buttons for setup, programming, and calibration. 1 external push button for alarm reset.

Environmental

Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Enclosure Rating	NEMA-4X enclosure, chemical, and weather resistant. Suitable for indoor and outdoor installations.

Inputs

Direct Wired Sensors	LEL, Oxygen, Carbon Dioxide, and toxic gas sensors. Amplifier not required for less than 500 feet
4-20 mA Sensors	Accepts any 4-20 mA transmitter (24 VDC, 2 or 3 wire). A wide variety of RKI/Riken sensors are available with 4-20 mA signals. Wiring distances up to 8,000 feet
Sampling Methods	Diffusion and sample draw heads available

Outputs

Relays	Three relays - 10 amp rating (at 115 VAC), SPDT isolated contacts. 2 relays for gas alarms and 1 trouble relay. Relays fully programmable for: increasing or decreasing alarm, latching or self reset, normally energized or normally de-energized, time delay for alarm on and alarm off.
4-20 mA	Signal output, 4-20 mA (maximum load impedance 500 ohms), per channel
24 VDC	24 VDC (400 mA max) output provided to operate sample drawing adapters or other accessories
Display	2 x 8 Alphanumeric display with backlighting
Audible	Built-in audible alarm, 94 dB, mounted on enclosure Coded output: pulsing = gas alarm, steady = fail
Visual	3 LED's on the front cover for alarm status indication, and malfunction. Optional top-mount strobe

Approvals

Warranty	One year materials and workmanship
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Specifications subject to change without notice.

Made in the USA



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Authorized Distributor:

Fixed Systems Controllers

Beacon 110 Single Channel Wall Mount Controller



ORDERING INFORMATION: When ordering a Beacon 110 system, please specify the following components:

- 1) Controller - Be sure to order correct -01, -02, or -03 version if intended to be used with a standby battery or if a strobe light is needed.
- 2) Detector Assembly (one only)
- 3) Battery back-up assembly if Beacon 110 with battery charger is ordered
 - 49-8103RK 1.2 AH battery assembly
 - 49-8104RK 12 AH battery assembly

Note

The Beacon 110 can accept direct connect sensors for LEL combustibles, Oxygen, Hydrogen Sulfide, and Carbon Monoxide as well as a few other gases (see Direct Connect Sensor section for a complete listing on page 150). The Beacon 110 can also accept any 4-20 mA transmitter.

Controller Selection

Part#	Description	Suggested Retail
72-2110RK	Beacon 110, single channel controller (no sensor)	1,275.00
72-2110RK-01	Beacon 110, single channel controller with battery charger (no sensor or back-up battery).....	1,325.00
72-2110RK-02	Beacon 110, single channel controller with small red strobe light (no sensor)	1,425.00
72-2110RK-03	Beacon 110, single channel controller with battery charger and small red strobe light (no sensor or back-up battery)	1,500.00
72-2110RK-05	Beacon 110, single channel controller with horn and small red strobe light (no sensor)	1,500.00
72-2110RK-07	Beacon 110, single channel controller with battery charger, horn, and small red strobe light (no sensor)	1,550.00

Detector Assemblies Selection

Refer to detector assembly sections for complete listing

Direct Connect	Sensors with or without junction boxes, that connect directly to a controller (no transmitter)	page 150
S2 Series	Sensor / transmitter with explosion proof or non explosion proof junction box (no display)	page 156
M2A-XL Series	Stand alone explosion proof transmitter, CAT/IR/EC sensors,digital display, CSA	page 161
T2A Series	2-Wire explosion proof transmitter, EC sensors, display	page 167
T3A Series	3-Wire explosion proof transmitter, CAT/IR/EC/PID sensors, display	page 170
VOC Pro	PID explosion proof transmitter, four PID sensor options, display	page 173
Air Alert	Stand-alone, non explosion proof transmitter, 3-color alarm LEDs and buzzer, or with relays	page 175
SD-1	Explosion proof transmitter, CAT/EC/IR/MOS/Galvanic sensors, display, HART & SIL2 options	page 180
M-Series	Low cost sensor / transmitter for H2S or CO, non explosion proof	page 209
35-3001	Sample draw detector assembly in NEMA 4X enclosure	page 210
35-3010	Sample draw, multi-sensor detector assembly in NEMA 4X enclosure	page 212
GD-70D	Sample draw transmitter, EC/MOS/CAT smart sensors, common components, display.....	page 185
GD-K88Ai	Diffusion transmitter with EC sensors, long sensor life, non explosion proof, display	page 189
MPS Sensor	MPS LEL Variable Combustible Gas Sensor (Molecular Property Spectrometer)	page 166

Refer to Legacy Products section for the following detector assemblies

S-Series	Sensor / transmitter with explosion proof junction box (no display) (old style)	page 222
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Battery Back-up Assembly Selection

Part#	Description	Suggested Retail
49-8103RK	Standby battery assembly, 24 VDC, 1.2 AMP hours, for Beacon 110 and Beacon 200	280.00
49-8104RK	Standby battery assembly, 24 VDC, 12 AMP hours, for Beacon 110, Beacon 200, Beacon 410A, Beacon 800, & Beacon 3200	480.00

Replacement Parts & Accessories

For a complete listing of replacement parts and accessories see page 229.

Notes

- Fixed system pricing is for equipment only and does not include factory start-up or training. Please contact RKI for quotation if factory start-up or training is needed.
- Please contact RKI if you would like assistance with pricing or configuring a system quotation.
- A calibration test kit is a strongly recommended accessory for all fixed systems.
- Legacy products are still available.





TWO CHANNEL WALL MOUNT CONTROLLER

Gas Detection For Life

Beacon™ 200 Model



Affordable 2 Point Monitor

Features

- Simultaneous readout on 2 channels
- Two alarm levels per channel
- Discrete and common relays
- Built in audible alarm
- NEMA 4X enclosure
- 4-20 mA outputs
- Proven, long-life sensors for a wide variety of gases
- Accepts any 4-20 mA transmitter input (24 VDC)
- Accepts RKI Direct Connect sensors
- Easy to install, operate and expand
- CSA, C/US classified

Industry Applications

- Petrochemical plants
- Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Gas, telephone, & electric utilities
- Parking garages
- Manufacturing facilities
- Steel
- Automotive
- HVAC

The Beacon 200 is a powerful, low cost fixed system controller for two points of gas detection. It is microprocessor controlled, versatile, simple to install and operate, and priced to be the industry's most economical two point controller. It is capable of connecting directly to RKI sensors for LEL level combustibles, oxygen, CO₂ and toxic gas sensors. The Beacon 200 can also accept any 4-20 mA transmitter (2 or 3 wire, 24 VDC). Sensors can be mounted directly at the Beacon 200 housing, or can be wired remotely from the controller.

The 10 amp rated relays are strong enough to actuate most external alarms and horns without using slave relays. The digital display has backlighting and simultaneous readout of the gas type and concentration.

The Beacon 200's housing is rated NEMA 4X for corrosion resistance and has a weather tight seal, and complies with lock out / tag out standards. An external reset switch allows the alarm to be silenced from outside of the controller housing. The Beacon 200 comes complete with a wall mounting kit for easy installation.

RKI offers the industry's widest selection of standard and toxic gas detection sensors, which can be utilized with the Beacon 200, providing gas monitoring protection for almost any application.

Beacon™ 200 Model

Physical

Dimensions	Height: 10.5" (267 mm) Width: 8.5" (216 mm) Depth: 6.3" (158 mm) Weight: 10 pounds (shipping weight)
Enclosure	Wall mounting grey polycarbonate with hinged cover
Conduit Connection	3/4" NPT conduit hubs, 3 provided. 2 for sensor wiring and 1 for power & relay wiring
Wiring Termination	Screw type terminal block, 14 gauge max
Power	100-240 VAC or 24 VDC standard. Battery backup option available
Controls	4 internal push buttons for setup, programming, and calibration. 1 external push button for alarm reset

Operating Environment

Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Enclosure Rating	NEMA-4X enclosure, waterproof, chemical, and weather resistant. Suitable for indoor and outdoor installations.

Inputs

Direct Wired Sensors	LEL, Oxygen, and toxic gas sensors. Remote amp required for greater than 500 feet
4-20 mA Sensors	Accepts any 4-20 mA transmitter (24 VDC, 2 or 3 wire). A wide variety of RKI/Riken sensors are available with 4-20 mA signals; (See list of detectable gases.) Wiring distances up to 5,000 feet
Sampling Methods	Accepts diffusion or sample draw heads
Current Draw	115 VAC: 90 ~ 140 mA 24 VDC: 220 ~ 340 mA

Outputs

Relays	7 relays - 10 amp rating (at 115 VAC), SPDT isolated contacts. 2 relays for gas alarm levels per channel, plus 2 relays for common gas alarm and 1 common relay for malfunction. Relays fully programmable for: increasing or decreasing alarm, latching or self reset, normally energized or normally de-energized, time delay for alarm on and alarm off
4-20 mA	Signal output, 4-20 mA (into 1,000 ohms impedance maximum), per channel
24 VDC	24 VDC (350 mA max) output provided to operate sample drawing adapters
Display	Alphanumeric display with backlighting. 20 characters per line; 4 lines each
Audible	Built-in audible alarm, 94 dB, mounted on enclosure Coded output: pulsing = gas alarm, steady = fail
Visual	4 LED's on the front cover for alarm status indication, pilot, and malfunction

Approvals

CSA Certified to CSA C22.2 No. 1010 and ANSI/ISA S82.01

Warranty

One year material and workmanship

Specifications subject to change without notice.

Made in the USA



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Authorized Distributor:

Fixed Systems Controllers

Beacon 200 Two Channel Wall Mount Controller



ORDERING INFORMATION: When ordering a Beacon 200 system, please specify the following components:

- 1) Controller
- 2) Detector Assembly (up to 2)
- 3) Battery back-up assembly if required
 - 49-8103RK 1.2 AH battery assembly
 - 49-8104RK 12 AH battery assembly

Note

The Beacon 200 can accept direct connect sensors for LEL combustibles, Oxygen, Hydrogen Sulfide, and Carbon Monoxide as well as a few other gases (see Direct Connect Sensor section for a complete listing on page 150). The Beacon 200 can also accept any 4-20 mA transmitter.

Controller Selection

Part#	Description	Suggested Retail
72-2102RK	Beacon 200, two channel controller, 115/220 VAC (no sensors)	2,500.00
72-2102-08	Beacon 200, two channel controller, 115/220 VAC, with small red strobe light (uses common alarm 1 relay contact for strobe) (no sensors)	2,650.00
72-2102-H2-01	Beacon 200, two channel controller, 115/220 VAC, for one H2 specific channel and one standard channel	2,600.00
72-2102-H2-02	Beacon 200, two channel controller, 115/220 VAC, for two H2 specific channels	2,600.00

Detector Assemblies Selection

Refer to detector assembly sections for complete listing

Direct Connect	Sensors with or without junction boxes, that connect directly to a controller (no transmitter)	page 150
S2 Series	Sensor / transmitter with explosion proof or non explosion proof junction box (no display)	page 156
M2A-XL Series	Stand alone explosion proof transmitter, CAT/IR/EC sensors, digital display, CSA	page 161
T2A Series	2-Wire explosion proof transmitter, EC sensors, display	page 167
T3A Series	3-Wire explosion proof transmitter, CAT/IR/EC/PID sensors, display	page 170
VOC Pro	PID explosion proof transmitter, four PID sensor options, display	page 173
Air Alert	Stand-alone, non explosion proof transmitter, 3-color alarm LEDs and buzzer, or with relays	page 175
SD-1	Explosion proof transmitter, CAT/EC/IR/MOS/Galvanic sensors, display, HART & SIL2 options	page 180
M-Series	Low cost sensor / transmitter for H2S or CO, non explosion proof	page 209
35-3001	Sample draw detector assembly in NEMA 4X enclosure	page 210
35-3010	Sample draw, multi-sensor detector assembly in NEMA 4X enclosure	page 212
GD-70D	Sample draw transmitter, EC/MOS/CAT smart sensors, common components, display	page 185
GD-K88Ai	Diffusion transmitter with EC sensors, long sensor life, non explosion proof, display	page 189
MPS Sensor	MPS LEL Variable Combustible Gas Sensor (Molecular Property Spectrometer)	page 166

Refer to Legacy Products section for the following detector assemblies

S-Series	Sensor / transmitter with explosion proof junction box (no display) (old style)	page 222
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Battery Back-up Assembly Selection

Part#	Description	Suggested Retail
49-8103RK	Standby battery assembly, 24 VDC, 1.2 AMP hours, for Beacon 110 and Beacon 200	280.00
49-8104RK	Standby battery assembly, 24 VDC, 12 AMP hours, for Beacon 110, Beacon 200, Beacon 410A, Beacon 800, & Beacon 3200	480.00

Replacement Parts & Accessories

For a complete listing of replacement parts and accessories see page 229.

Notes

- Fixed system pricing is for equipment only and does not include factory start-up or training. Please contact RKI for quotation if factory start-up or training is needed.
- Please contact RKI if you would like assistance with pricing or configuring a system quotation.
- A calibration test kit is a strongly recommended accessory for all fixed systems.
- Legacy products are still available.





FOUR CHANNEL WALL MOUNT CONTROLLER

Gas Detection For Life

Beacon™ 410A Model



Features

- Simultaneously control up to 4 gas monitoring channels
- OLED display of all 4 channels
- LEL / O₂ / CO₂ / toxic direct connect sensors
- Accepts any 4-20 mA transmitter, 2 or 3 wire
- Up to 3 programmable alarm levels per channel
- Up to 3 configurable alarm relays per channel
- 4-20 mA analog & Modbus digital output standard
- 115 / 220 VAC or 24 VDC operation
- Audible alarm with silence feature
- RFI / EMI Resistant
- Alarm reset switch
- Built in trouble alarm with relay
- Weather and corrosion resistant NEMA 4X enclosure

Applications

- Petrochemical plants
- Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Gas, telephone, & electric utilities
- Parking garages
- Manufacturing facilities
- Steel

The Beacon 410A is a highly configurable, microprocessor-based, flexible and easy to use 4 channel gas monitoring controller. It simultaneously displays the gas type, readings, and status for four channels of gas detection. It can monitor any combination of direct connect sensors (LEL, O₂, CO₂, and toxic gas sensors), as well as any 4-20mA transmitter.

Each channel has up to three fully configurable alarm points. A built-in silenceable audible alarm alerts you to alarm conditions. Each channel also has two dedicated fully configurable relays and there is a bank of common relays as well. The common relays can optionally be configured as additional relays allowing up to 3 alarm relays per channel. Each channel provides a 4-20mA output signal. A digital Modbus interface for remote logging of data via a Modbus network is standard. A Min-Max feature retains high & low peak readings for review at any time.

Optional Strobe Light

A fully configurable, high visibility strobe is available as an option. The unit can be powered from 115/220 VAC, or an external 24 VDC source. A trickle charging battery backup feature with battery assembly is also available as an option.

All features and functions of the Beacon 410A are controlled by easy to use menus on the OLED display. All features including form-C relay contacts of the Beacon 410A are built into the unit so you never need to purchase or maintain any "add-on" cards or components.



RKI Instruments, Inc. • 33248 Central Ave. Union City, CA 94587 • Phone (510) 441-5656 • (800) 754-5165 • Fax (510) 441-5650

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Beacon™ 410A Model

Physical

Dimensions	Height: 12.5" (31.8 cm) x Width: 11" (27.9 cm) x Depth: 6.4" (13.6 cm)
Enclosure	NEMA 4X Fiberglass / polyester with lexan window for indoor and outdoor locations
Conduit Connection	3/4" NPT conduit hubs, 4 provided, for sensor, power, & relay wiring
Wiring Termination	Screw Type terminal block, 14 gauge max
Power	115 VAC, 220 VAC, or 24 VDC nominal. Battery backup option available
Optional Accessories	Strobe light, and Battery Backup Assembly
Controls	Display PCB Control Switches: • UP/YES push button switch • ESCAPE push button switch • External reset switch • DOWN/NO push button switch • ENTER push button switch • On/Off toggle switch

Environmental

Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Enclosure Rating	NEMA-4X enclosure, chemical and weather resistant. Suitable for indoor and outdoor installations

Inputs

Direct Wired Sensors	LEL, Oxygen, Carbon Dioxide, and toxic gas sensors. Remote amp not required for less than 500 feet
4-20 mA	Accepts any 4-20 mA transmitter (24 VDC, 2 or 3 wire). A wide variety of RKI/Riken sensors are available with 4-20 mA signals. Wiring distances up to 8,000 feet
Sampling Methods	Diffusion and sample draw heads available

Outputs

Relays	Two flexible, programmable Form-C (C, NO, NC) relays per channel, plus five common relays (Fail, Alarm-1, Alarm-2, Alarm-3, Alarm-Any). Common relays may optionally be assigned to function as additional channel alarm relays, providing for up to three alarm relays per channel. 10A contact rating, 250V.
4-20 mA	Signal output, 4-20 mA (maximum load impedance 500 ohms), per channel
RS-485	Modbus format RS-485 serial output of all channel data, including gas reading and alarm status.
Display	Four line OLED display
Audible	Built-in audible alarm, 94 dB, mounted on enclosure Coded output: pulsing = gas alarm, steady = fail
Visual	1. Alarm LED's (on Display PCB) • Alarm 1 = yellow • Alarm 2 = orange • Alarm 3 = red • Fail = yellow 2. Green Pilot LED to indicate AC power connected (on Display PCB) 3. An optional 24 VDC NEMA 4X strobe mounted to top of case.

Approvals

Warranty	CSA Certified to CSA C22.2 No. 61010-1-12 and UL61010-1 One year materials and workmanship
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Authorized Distributor:

Fixed Systems Controllers

Beacon 410A Four Channel Wall Mount Controller

ORDERING INFORMATION: When ordering a Beacon 410A system, please specify the following components:

- 1) Controller - Be sure to order correct -01, -02, or -03 version if intended to be used with a standby battery or if a strobe light is needed.
- 2) Detector Assemblies (up to 4)
- 3) Battery back-up assembly if Beacon 410A with battery charger is ordered
49-8104RK 12 AH battery assembly



Note

The Beacon 410A can accept direct connect sensors for LEL combustibles (catalytic or IR sensor), Oxygen, Hydrogen Sulfide, Carbon Monoxide, and Carbon Dioxide as well as a few other gases (see Direct Connect Sensor section for a complete listing on page 150). The Beacon 410A can also accept any 4-20 mA transmitter.

Controller Selection

Part#	Description	Suggested Retail
72-2104A	Beacon 410A, four channel controller (no sensor)	2,825.00
72-2104A-01	Beacon 410A, four channel controller with battery charger (no sensors or back-up battery)	2,875.00
72-2104A-13R	Beacon 410A, four channel controller with large red strobe light (no sensor)	3,175.00
72-2104A-14R	Beacon 410A, four channel controller with terminals for battery charger, large red strobe light (no sensors or back-up battery)	3,275.00

Detector Assemblies Selection

Refer to detector assembly sections for complete listing

Direct Connect	Sensors with or without junction boxes, that connect directly to a controller (no transmitter)	page 150
S2 Series	Sensor / transmitter with explosion proof or non explosion proof junction box (no display)	page 156
M2A-XL Series	Stand alone explosion proof transmitter, CAT/IR/EC sensors, digital display, CSA	page 161
T2A Series	2-Wire explosion proof transmitter, EC sensors, display	page 167
T3A Series	3-Wire explosion proof transmitter, CAT/IR/EC/PID sensors, display	page 170
VOC Pro	PID explosion proof transmitter, four PID sensor options, display	page 173
Air Alert	Stand-alone, non explosion proof transmitter, 3-color alarm LEDs and buzzer, or with relays	page 175
SD-1	Explosion proof transmitter, CAT/EC/IR/MOS/Galvanic sensors, display, HART & SIL2 options	page 180
M-Series	Low cost sensor / transmitter for H2S or CO, non explosion proof	page 209
35-3001	Sample draw detector assembly in NEMA 4X enclosure	page 210
35-3010	Sample draw, multi-sensor detector assembly in NEMA 4X enclosure	page 212
GD-70D	Sample draw transmitter, EC/MOS/CAT smart sensors, common components, display	page 185
GD-K88Ai	Diffusion transmitter with EC sensors, long sensor life, non explosion proof, display	page 189
MPS Sensor	MPS LEL Variable Combustible Gas Sensor (Molecular Property Spectrometer)	page 166

Refer to Legacy Products section for the following detector assemblies

S-Series	Sensor / transmitter with explosion proof junction box (no display) (old style)	page 222
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Battery Back-up Assembly Selection

Part#	Description	Suggested Retail
49-8104RK	Standby battery assembly, 24 VDC, 12 AMP hours, for Beacon 110, Beacon 200, Beacon 410A, Beacon 800, & Beacon 3200	480.00

Replacement Parts & Accessories

For a complete listing of replacement parts and accessories see page 229.

Notes

- Fixed system pricing is for equipment only and does not include factory start-up or training. Please contact RKI for quotation if factory start-up or training is needed.
- Please contact RKI if you would like assistance with pricing or configuring a system quotation.
- A calibration test kit is a strongly recommended accessory for all fixed systems.
- Legacy products are still available.





8 CHANNEL WALL MOUNT CONTROLLER

Gas Detection For Life

Beacon™ 800 Model



Features

- Capable of up to 8 separate channels
- Digital display of all 8 channels simultaneously
- Compact, weatherproof, NEMA 4X enclosure
- 85 to 264 VAC or 24 VDC operation
- Long life sensors (2+ years typical)
- Accepts any 4-20 mA transmitter
- Audible alarm with reset button
- Two programmable alarm levels per channel
- Common alarm and fail relays
- Relay rating 3 amps, form C
- Low cost versatile solution

Applications

- Petrochemical plants
- Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Gas, telephone, & electric utilities
- Parking garages
- Manufacturing facilities
- Steel
- Automotive
- HVAC

Gas detection should not be complicated. The Beacon™ 800 is gas detection simplified.

The Beacon™ 800 is a versatile, low cost fixed system controller for one to eight points of gas detection. It is microprocessor controlled and is capable of accepting up to 8 separate 4-20 mA sensor transmitters which can be either 2 or 3 wire. The Beacon™ 800 can be powered by either 24 VDC, or 85-264 VAC. It is simple to operate and comes complete with a wall mount installation kit.

The 2 large digital displays have backlighting and easily identify both the gas type and the gas concentration for all 8 channels simultaneously. The Beacon™ 800 is housed in a NEMA 4X rated case for a weather tight seal. This case design complies with lock out / tag out standards and can be fully secured. An external reset switch allows alarms to be silenced from outside the controller housing. The bottom mounted wiring hubs allow for easy wiring.

With 3 amp rated relays, the Beacon™ 800 can be wired directly to a variety of devices like alarm horns, buzzers, or lights. This eliminates the need for costly external relays from the controller to devices. RKI offers the industry's widest selection of standard and toxic gas detection sensors, which can be utilized with the Beacon™ 800, providing gas monitoring protection for almost any application.

Beacon™ 800 Model

Physical

Dimensions	Height: 12.5" 318 mm Width 11.0" 279 mm Depth 6.4" 163 mm
Enclosure	Wall mounting grey fiberglass with hinged cover.
Conduit Connection	3/4" NPT conduit hubs, 4 provided for sensors, power, and relay wiring.
Wiring Termination	Screw type terminal block, 14 gauge max.

Operating Environment

Operating Temp	-4°F to 122°F (-10°C to 50°C)
Storage Temp	-4°F to 158°F (-20°C to 70°C)
Relative Humidity	0 - 100% RH
Enclosure Rating	NEMA-4X enclosure, waterproof, chemical, and weather resistant.

Inputs

4-20 mA	Accepts any 4-20 mA transmitter (24 VDC, 2 or 3 wire). A wide variety of RKI sensors are available with 4-20 mA signals. Wiring distances up to 8,000 feet.
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Outputs

Relays	2 relays per channel 3 amp rating, SPDT isolated contacts. <i>1 set of common relays:</i> • 2 for gas alarm levels • 1 for malfunction <i>Relays fully programmable for:</i> • Increasing or decreasing alarms • Latching or self reset alarms • Normally energized or normally de-energized • Time delay for alarm on and alarm off.
24VDC	24 VDC output provided to operate sample drawing adapters.
Display	2 alphanumeric displays with backlighting. 16 characters per line; 4 lines each. All 8 channels continuously displayed.
Audible	Built-in audible alarm, 94 dB, mounted on enclosure. <i>Coded Output:</i> • pulsing = gas alarm • steady = fail
Visual	4 visual LED alarms on front cover for alarm indications, pilot, and malfunction.
Optional Expansion Cards	Individual 4-20 mA (or 1 - 5 VDC) outputs. Heavy duty relay card (4 each @ 30 amps)
Power	85-264VAC or 24VDC
Approvals	CSA Certified to CSA C22.2 No. 1010 and ANSI/ISA S82.01
Warranty	One year materials and workmanship.

Specifications subject to change without notice.

Made in the USA



10000363



ISO 9001

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Authorized Distributor:

Fixed Systems Controllers

Beacon 800 Eight Channel Wall Mount Controller

ORDERING INFORMATION: When ordering a Beacon 800 system please specify the following components:

- 1) Controller
- 2) Detector Assemblies (up to 8)
- 3) Any options desired such as heavy duty relay board or individual recorder output board.
- 4) Battery back-up assembly if required - 49-8104RK 12 AH battery assembly

Note

All sensors connected to the Beacon 800 must use a 4-20 mA transmitter. Direct Connect Sensors are not compatible with the Beacon 800.



Controller Selection

Part#	Description	Suggested Retail
72-2108RK	Beacon 800, eight channel controller (no sensors)	2,700.00

Detector Assemblies Selection

Refer to detector assembly sections for complete listing

S2 Series	Sensor / transmitter with explosion proof or non explosion proof junction box (no display)	page 156
M2A-XL Series	Stand alone explosion proof transmitter, CAT/IR/EC sensors,digital display, CSA	page 161
T2A Series	2-Wire explosion proof transmitter, EC sensors, display	page 167
T3A Series	3-Wire explosion proof transmitter, CAT/IR/EC/PID sensors, display	page 170
VOC Pro	PID explosion proof transmitter, four PID sensor options, display	page 173
Air Alert	Stand-alone, non explosion proof transmitter, 3-color alarm LEDs and buzzer, or with relays	page 175
SD-1	Explosion proof transmitter, CAT/EC/IR/MOS/Galvanic sensors, display, HART & SIL2 options	page 180
M-Series	Low cost sensor / transmitter for H2S or CO, non explosion proof	page 209
35-3001	Sample draw detector assembly in NEMA 4X enclosure	page 210
35-3010	Sample draw, multi-sensor detector assembly in NEMA 4X enclosure	page 212
GD-70D	Sample draw transmitter, EC/MOS/CAT smart sensors, common components, display.....	page 185
GD-K88Ai	Diffusion transmitter with EC sensors, long sensor life, non explosion proof, display	page 189
MPS Sensor	MPS LEL Variable Combustible Gas Sensor (Molecular Property Spectrometer)	page 166

Refer to Legacy Products section for the following detector assemblies

S-Series	Sensor / transmitter with explosion proof junction box (no display)	page 222
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Optional Selections

(These items are factory installed and must be ordered with the instrument)

Part#	Description	Suggested Retail
75-0004RK	Recorder output board, 8 outputs, 4-20 mA or 1-5 VDC, added to Beacon 800	320.00
75-0005RK	Heavy duty relay board, 4 relays at 30 amps, added to Beacon 800	200.00
75-0006RK	Relay board and recorder output board, added to Beacon 800	480.00

Battery Back-up Assembly Selection

Part#	Description	Suggested Retail
49-8104RK	Standby battery assembly, 24 VDC, 12 AMP hours, for Beacon 110, Beacon 200, Beacon 410A, Beacon 800, & Beacon 3200	480.00

Replacement Parts & Accessories

For a complete listing of replacement parts and accessories see page 229.

Notes

- Fixed system pricing is for equipment only and does not include factory start-up or training. Please contact RKI for quotation if factory start-up or training is needed.
- Please contact RKI if you would like assistance with pricing or configuring a system quotation.
- A calibration test kit is a strongly recommended accessory for all fixed systems.
- Legacy products are still available.





32 CHANNEL WALL MOUNT CONTROLLER

Gas Detection For Life

Beacon 3200 Model

Channel	Gas	Reading	Status	Location
1A	Carbon Monoxide	31 ppm	Alarm 1	Pump Room #1
1B			Not Used	
1C	Sulfur Dioxide	2.18 ppm	Alarm 1	Pump Room #1
1D	Hydrogen		Offline	Pump Room #1
2A	Nitric Oxide		Offline	Pump Room #1
2B	Oxygen	8.1 % VOL	Alarm 1/Alarm 2	Boiler Room #1
2C	Chlorine	0.0 ppm	OK	Boiler Room #1
2D	Oxygen	18.0 % VOL	Alarm 1	Boiler Room #1
3A	Isobutane	0 % LEL	OK	Boiler Room #1
3B			Not Used	
3C	Propane	0 % LEL	OK	Boiler Room #2
3D	Phosphine	0.21 ppm	Alarm 1	Boiler Room #2
4A	Carbon Dioxide		Offline	Boiler Room #2
4B	Oxygen		Offline	Boiler Room #2
4C			Not Used	
4D	Hydrogen Sulfide	0 ppm	OK	Pump Room #2

DC Pwr History Graph Bar Graph Page Up Page Down Setup Calibrate Reset / Clear



Features

- Simultaneously control up to 32 gas monitoring channels
- 8 sensor re relay module slots for flexible configurations:
 - 4 Sensors per module card
 - 8 Relays per module card
 - Up to 3 programmable alarm levels per channel
- 3 common alarm relays and 2 fail relay as standard
- 7" Color LCD Touchscreen display of all 32 channels
- Accepts LEL / O₂ / CO₂ / toxic direct connect sensors
- Accepts any 4-20 mA transmitter, 2 or 3 wire
- 4-20 mA, RS-485, and Modbus TCP/IP outputs standard
- 115 / 220 VAC or 24 VDC operation
- Audible alarm with silence feature
- RFI / EMI resistant
- Alarm reset switch
- Weather and corrosion resistant NEMA 4X enclosure

Applications

- Petrochemical plants
- Water & wastewater treatment plants
- Gas, telephone, & electric utilities
- Any industrial plant
- Refineries
- Pulp & paper mills
- Parking garages
- Steel

The all new Beacon 3200 is a versatile, advanced fixed system controller for up to 32 points of gas detection. It is capable of controlling up to 32 separate gas detection sensors. Sensor types can be direct connect, 4-20 mA (2 or 3 wire) or Modbus transmitters. The Beacon 3200 can be powered by either 115 VAC, 220 VAC, or 24 VDC. A battery backup option is available and receives its trickle charge from the Beacon 3200. It is simple to operate and comes complete with a wall mount installation kit.

The large 7" color LCD touchscreen can access control and maintenance functions as well as display all 32 channels. The Beacon 3200 is housed in a NEMA 4X rated case for a weather tight seal. This case design complies with lockout / tag out standards and can be fully secured. An external reset switch allows alarms to be silenced from outside the controller housing. Nine bottom wiring hubs allow for easy wiring.

With an Ethernet port, the Beacon 3200 can output all channel data including gas readings and alarm stats via Modbus TCP/IP. This allows users to monitor the readings from a distance. RKI offers the industry's widest selection of standard and toxic gas detection sensors, which can be utilized with the Beacon 3200, providing gas monitoring protection for almost any application.



RKI Instruments, Inc. • 33248 Central Ave. Union City, CA 94587 • Phone (510) 441-5656 • (800) 754-5165 • Fax (510) 441-5650

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

Physical

Dimensions	Height: 16" (40.64 cm) x Width: 13.75" (34.93 cm) x Depth: 6.5" (16.51 cm)
Enclosure	NEMA 4X fiberglass / polyester with lexan window for indoor and outdoor locations.
Conduit Connection	3/4" NPT conduit hubs, 9 provided, for sensor, power, & relay wiring.
Wiring Termination	Screw type terminal block, 14 gauge max.
Power	115 VAC, 220 VAC, or 24 VDC nominal. Battery backup option available.
Optional Accessories	Strobe light, and battery backup assembly.
Controls	Touchscreen, reset button.

Environmental

Operating Temperature	-40°F to 122°F (-40°C to 50°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Enclosure Rating	NEMA 4X enclosure, chemical and weather resistant. Suitable for indoor and outdoor installations.

Inputs

Direct Wired Sensors	LEL, Oxygen, Carbon Dioxide, and various toxic gas sensors. Amplifier not required for less than 500 feet.
4-20 mA	Accepts any 4-20 mA transmitter (24 VDC, 2 or 3 wire). A wide variety of RKI/Riken sensors are available with 4-20 mA signals. Wiring distances up to 8,000 feet. Compatible with: S2 Series, M2A, T2A, T3A, VOC Pro, Air Alert, GD-70D, and others.
Modbus	Accepts M2A, T3A, VOC Pro, Air Alert.
Sampling Methods	Diffusion and sample draw heads available.

Outputs

Relays	Four common Form C (C, NO, NC) relays (Fail, Alarm-1, Alarm-2, Alarm-3). Common relays may optionally be assigned to function as additional channel alarm relays, providing for up to three alarm relays per channel. Additional relays available on optional relay cards. 115/220VAC, 6A, or 30VDC contact relay.
4-20 mA	Signal output, 4-20 mA (maximum load impedance 500 ohms output), per channel.
RS-485 Modbus	Modbus format RS-485 serial output of all channel data, including gas reading and alarm status.
Ethernet	Modbus TCP/IP output of all channel data, including gas readings and alarm status.
Display	7" Color LCD display of all 32 channels.
Audible	Built-in audible alarm, 90 dB, mounted on enclosure. Coded output: pulsing = gas alarm, steady = fail
Visual	1. Touchscreen indications for each channel reading • Alarm 1 = yellow • Alarm 2 = orange • Alarm 3 = red • Fail = red 2. An optional 24 VDC NEMA 4X strobe mounted to top of case.
Datalogging	Included as standard for all 32 channels. Records to SD card.

Approvals

	Shock and Fire Hazard
Warranty	One year materials and workmanship.

* Specifications subject to change without notice.



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Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Controllers

Beacon 3200 Thirty Two Channel Wall Mount Controller

ORDERING INFORMATION: When ordering a Beacon 3200 system please specify the following components:

- 1) Controller
- 2) Sensor module/s (up to 4 channels per sensor module card)
- 3) Relay module/s (up to 8 relays per relay module card)
- 4) Detector Assemblies (max of 32)
- 5) Battery back-up assembly if required

Note

Maximum of 8 module cards per controller for any combination of sensor or relay modules.



Controller Component Selection

Part#	Description	Suggested Retail
72-2132	Beacon 3200 controller base unit, sensor & relay module cards sold separately	5,200.00
72-2132-01	Beacon 3200 Controller with SpectAlert strobe and horn	5,500.00
72-2132-02R	Beacon 3200 Controller with Federal Signal Streamline red strobe.....	5,600.00
72-2132-03R	Beacon 3200 Controller with Ingram red strobe	5,450.00

Sensor Module and Relay Module Selections

Part#	Description	Suggested Retail
57-0168-01	Sensor module PC board assembly for Beacon 3200, accepts 4 channels per sensor module (Not needed for Modbus detector inputs)	480.00
57-0169-01	Relay module PC board assembly for Beacon 3200, provides 8 programmable relays per relay module ...	280.00

Detector Assemblies Selections

Refer to detector assembly sections for complete listing

Direct Connect	Sensors with or without junction boxes, that connect directly to a controller (no transmitter)	page 150
S2 Series	Sensor / transmitter with explosion proof or non explosion proof junction box (no display)	page 156
M2A-XL Series	Stand alone explosion proof transmitter, CAT/IR/EC sensors,digital display, CSA	page 161
T2A Series	2-Wire explosion proof transmitter, EC sensors, display	page 167
T3A Series	3-Wire explosion proof transmitter, CAT/IR/EC/PID sensors, display	page 170
VOC Pro	PID explosion proof transmitter, four PID sensor options, display	page 173
Air Alert	Stand-alone, non explosion proof transmitter, 3-color alarm LEDs and buzzer, or with relays	page 175
SD-1	Explosion proof transmitter, CAT/EC/IR/MOS/Galvanic sensors, display, HART & SIL2 options	page 180
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GD-K88Ai	Diffusion transmitter with EC sensors, long sensor life, non explosion proof, display	page 189
MPS Sensor	MPS LEL Variable Combustible Gas Sensor (Molecular Property Spectrometer)	page 166

Battery Back-up Assembly Selection

Part#	Description	Suggested Retail
49-8104RK	Standby battery assembly, 24 VDC, 12 AMP hours, for Beacon 110, Beacon 200, Beacon 410A, Beacon 800, & Beacon 3200	480.00

Replacement Parts & Accessories

For a complete listing of replacement parts and accessories see page 229.

Notes

- Fixed system pricing is for equipment only and does not include factory start-up or training. Please contact RKI for quotation if factory start-up or training is needed.
- Please contact RKI if you would like assistance with pricing or configuring a system quotation.
- A calibration test kit is a strongly recommended accessory for all fixed systems.
- Legacy products are still available.



DIRECT CONNECT SENSORS



Available gases include

- LEL, H2S, CO, & CO2
- Toxic sensors include NH3, AsH3, Cl2, ClO2, HCN, & SO2

Infrared sensors for combustibles and CO2

Patented water repellent sensor coating

Explosion proof construction

Optional stainless steel junction box

Explosion Proof
IR LEL & CO2

The RKI Direct Connect series gas sensors are highly reliable and very cost effective for the detection of common gas hazards. The direct connect series are available for LEL, H2 Specific LEL, LEL IR, Oxygen, H2S, CO, CO2, and for a variety of toxic gases. The sensors for LEL, H2, Oxygen, H2S, CO2, and Carbon Monoxide are explosion-proof with flame arrestors, and approved for use in hazardous areas (Class I, Div. 1 Groups B, C, D). An optional non-explosion proof version is available for oxygen, H2S, CO, and CO2 for use in Class 1 Div 2.

The Direct Connect sensors can be used in two different ways. The sensors can be mounted directly to the controllers as a complete stand alone system, or they can be mounted to explosion proof junction boxes for remote detection.

The toxic sensors are electrochemical type plug-in sensors, which provide high specificity, fast response, and long life. The plug-in design allows quick replacement in the field with no tools required. Toxic sensors are designed for use in Class I, Div. 2 hazardous locations. Sensors are available for NH3, AsH3, Cl2, ClO2, HCN, PH3, and SO2.

The Direct Connect sensors can be used either indoors or outdoors. The flame arrestors for the explosion-proof versions utilize a patented coating which make them water repellent. Also, splash guards are available for use in very wet environments. An optional stainless steel junction box is available for corrosive environments.

All of the Direct Connect sensors are designed to specifically interface with RKI Beacon 110, 200, and 410A controllers.

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Explosion Proof

Class I, Div. 1 , Groups B, C, D

	LEL General Purpose	LEL H2 Specific	O2 Oxygen	H2S Hydrogen Sulfide	CO Carbon Monoxide	CH4 Methane IR	HC Hydrocarbons IR	CO2 Carbon Dioxide IR	
 Sensor With J-Box	61-1000RK (UL)	61-1001RK (UL)	65-2515RK	65-2427RK-05	65-2437RK-05	61-1003RK-CH4 61-1006RK-CH4	61-1003RK-HC	61-1004RK-02 61-1004RK-03 61-1004RK-05 61-1004RK-10	
	61-1000RK-05 (CSA)	61-1001RK-05 (CSA)							
Sensors	Catalytic		Galvanic cell	Electrochemical		Infrared			
 Sensor Only	61-0140RK (UL) 61-0140RK-05 (CSA)	LEL H2 - NC-6205-01 (UL) NC-6205-05 (CSA)	65-2514RK	65-2428	65-2438	61-0190RK-CH4 61-0192RK-CH4	61-0190RK-HC	61-0191RK-02 61-0191RK-03 61-0191RK-05 61-0191RK-10	
Measuring Range	0-100% LEL		0-25% Vol.	0-100 ppm	0-300 ppm	0-100% LEL 0-100% Vol.	0-100% LEL	-02 -03 -05 -10	0 - 5000 ppm 0 - 5.0% Vol. 0 - 50% Vol. 0 - 100% Vol.
Lower Detectable Limit (LDL)	2% of full scale		0.1% Vol.	2% of full scale					
Response Time (T-90)	LEL - 30 Seconds	LEL H2 - 20 Seconds	90 Seconds	60 Seconds	90 Seconds	30 Seconds	30 Seconds	30 Seconds	
Accuracy	+/- 5% of full scale (0.5% volume for oxygen)								
Life Expectancy	2 to 3 years with normal service	3 to 5 years with normal service	2 to 3 years with normal service			5 years plus with normal service			
Operating Environment									
Location	Indoor or outdoor. Explosion proof for Class I, Groups B, C, and D atmospheres.								
Temperature	-40°F to 167°F -40°C to 75°C		-4°F to 113°F -20°C to 45°C	-40°F to 104°F -40°C to 40°C	23°F to 104°F -5°C to 40°C	-40°F to 122°F -40°C to 50°C			
Humidity	0 - 99% RH non condensing								
Housing									
Housing J-Box	Cast aluminum, explosion-proof. Optional stainless steel J-box available.								
Sensor	Stainless steel, explosion-proof								
Approvals	61-1000RK UL	61-1001RK UL	CSA NRTL			C UL US			
	61-1000RK-05 CSA	61-1001RK-05 CSA							
Controllers	Compatible with the following controllers: Beacon 110, Beacon 200, and Beacon 410A								
Warranty	One year materials and workmanship								

Toxic Gas Transmitters

Class I, Div. 2

	O2 Oxygen	H2S Hydrogen Sulfide	CO Carbon Monoxide	Toxics	CO2 Carbon Dioxide
 Sensor With J-Box	65-2497RK *65-2502RK	65-2498RK	65-2499RK	See Chart Below	61-1007RK-02 61-1007RK-03 61-1007RK-05 61-1007RK-10
Sensors	Galvanic cell	Electrochemical			Infrared
 Sensor Only	65-2494RK *65-2510RK	65-2495RK	65-2496RK	See Chart Below	61-0198RK-02 61-0198RK-03 61-0198RK-05 61-0198RK-10
Measuring Range	0-25% Vol.	0-100 ppm	0-300 ppm		0 - 5000 ppm 0 - 5.0% Vol. 0 - 50% Vol. 0 - 100% Vol.
Lower Detectable Limit (LDL)	0.1% Vol.	2% of full scale			
Response Time (T-90)	20 seconds or less	35 seconds or less		60 seconds or less	30 seconds or less
Accuracy	+/- 5% of full scale (0.5% volume for oxygen)				
Life Expectancy	2 years with normal service	2 to 3 years with normal service			5 years plus with normal service
Operating Environment					
Location	Indoor or outdoor, Class I, Div. 2				
Temperature	-4°F to 122°F -20°C to 50°C			14°F to 104°F -10°C to 40°C	-40°F to 122°F -40°C to 50°C
Humidity	0 - 99% RH non condensing				
Housing					
Housing J-Box	Cast aluminum, explosion-proof				
Sensor	Aluminum				
Controllers	Compatible with the following controllers: Beacon 110, Beacon 200, and Beacon 410A				
Warranty	One year materials and workmanship				

* Partial pressure sensor for helium (He) applications. Consult factory for details.

		Toxic Direct Connect Sensor Ordering Information					
		Part Number With J-Box	Part Number Without J-box	Gas	Range	Resolution	Sensor type
 ESM-01 * Sensor being phased out, use CT-7 type when possible.	 CT-7	65-2301RK-NH3	65-2300RK-NH3	Ammonia (NH3)*	0 - 75.0 ppm	0.1 ppm	ESM -01
		65-2303-NH3-75	65-2302-NH3-75	Ammonia (NH3)	0 - 75.0 ppm	0.1 ppm	CT-7
		65-2303-NH3-1	65-2302-NH3-1	Ammonia (NH3)	0 - 100 ppm	1 ppm	CT-7
		65-2303-NH3-2	65-2302-NH3-2	Ammonia (NH3)	0 - 200 ppm	1 ppm	CT-7
		65-2303-NH3-5	65-2302-NH3-5	Ammonia (NH3)	0 - 500 ppm	1 ppm	CT-7
		65-2301RK-AsH3	65-2300RK-AsH3	Arsine (AsH3)	0 - 1.50 ppm	0.01 ppm	ESM -01
		65-2303-CL2-3	65-2302-CL2-3	Chlorine (Cl2)	0 - 3.00 ppm	0.01 ppm	CT-7
		65-2303-CL2-10	65-2302-CL2-10	Chlorine (Cl2)	0 - 10.0 ppm	0.1 ppm	CT-7
		65-2303-CLO2-1	65-2302-CLO2-1	Chlorine Dioxide (ClO2)	0 - 1.00 ppm	0.01 ppm	CT-7
		65-2303-CLO2-3	65-2302-CLO2-3	Chlorine Dioxide (ClO2)	0 - 3.00 ppm	0.01 ppm	CT-7
		65-2303-CLO2-5	65-2302-CLO2-5	Chlorine Dioxide (ClO2)	0 - 5.00 ppm	0.01 ppm	CT-7
		65-2301RK-HCN	65-2300RK-HCN	Hydrogen Cyanide (HCN)	0 - 15.0 ppm	0.1 ppm	ESM -01
		65-2301RK-PH3	65-2300RK-PH3	Phosphine (PH3)	0 - 1.00 ppm	0.01 ppm	ESM -01
		65-2301RK-SO2	65-2300RK-SO2	Sulfur Dioxide (SO2)	0 - 6.00 ppm	0.01 ppm	ESM -01

*Other ranges available, please consult factory

AVAILABLE ACCESSORIES



Remote Mount
Calibration Adaptor



Remote horns & lights



Calibration kits



Flow through adaptors



Battery
Backup



Datalogger

Direct Interface with Beacon 110 / 200 / 410A Controllers

Direct Connect Wiring Matrix		
Sensor	Number of Wires to Controller	Maximum Distance to Controller
		18 AWG wire min.
LEL / CO ₂ / IR	4	500 ft.
Oxygen	2	500 ft.
H ₂ S	2	500 ft.
CO	2	500 ft.
Toxics	2	500 ft.



Made in the USA

Authorized Distributor:



Fixed Systems Sensors & Transmitters

Direct Connect Sensors no J-box

ORDERING INFORMATION: Direct connect sensors can be with or without a junction box and can be connected directly to the Beacon 110, Beacon 200, and Beacon 410A. LEL and Oxygen versions can also be connected to the Pioneer.



Explosion Proof Sensors, No J-Box, Class I, Division 1 Approved

Part#	Description	Suggested Retail
61-0140RK	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), UL version	280.00
61-0140RK-05	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), cCSAus version	320.00
NC-6205-01	Sensor, LEL Hydrogen (H2) specific, 1/2 NPT, with guard and silicone resistance, UL version, (no transmitter, no j-box)	400.00
NC-6205-05	Sensor, LEL Hydrogen (H2) specific, explosion proof direct connection, with silicone resistance, cCSAus version, (no transmitter, no j-box)	450.00
61-0190RK-CH4	Sensor, Methane (CH4) 0 - 100% LEL, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-0192RK-CH4	Sensor, Methane (CH4) 0 - 100% volume, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-0190RK-HC	Sensor, Hydrocarbon (HC) 0 - 100% LEL, IR, isobutane standard calibration, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
65-2514RK	Sensor, Oxygen (O2), capillary type, explosion proof, (no transmitter, no j-box), CSA version	380.00
65-2438	Sensor, Carbon Monoxide (CO), direct connection (no transmitter, no j-box), CSA version	440.00
65-2428	Sensor, Hydrogen Sulfide (H2S), direct connection (no transmitter, no j-box)	440.00
65-2425	Sensor, Hydrogen Cyanide (HCN), direct connection (no transmitter, no j-box), Available Q4 2022	800.00
61-0191RK-02	Sensor, Carbon Dioxide (CO2) 0 - 5,000 ppm, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-03	Sensor, Carbon Dioxide (CO2) 0 - 5%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-05	Sensor, Carbon Dioxide (CO2) 0 - 50%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-10	Sensor, Carbon Dioxide (CO2) 0 - 100%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00

Non-Explosion Proof Sensor, OK for Class I, Division 2, No J-box

Part#	Description	Suggested Retail
65-2494RK	Sensor, Oxygen (O2) 0 - 25%, non explosion proof direct connect, capillary type, no j-box	340.00
65-2510RK	Sensor, Oxygen (O2) 0 - 25%, non explosion proof direct connect, partial pressure type (no transmitter, no j-box)	270.00
61-0198RK-04	Sensor, IR Carbon Dioxide (CO2) 0-20%, non explosion proof direct connect, replaceable sensor	700.00
65-2495RK	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, non explosion proof direct connect, no j-box	340.00
65-2496RK	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, non explosion proof direct connect, no j-box	340.00
61-0198RK-02	Sensor, IR Carbon Dioxide (CO2) 0-5,000 ppm, non explosion proof direct connect, replaceable sensor ...	700.00
61-0198RK-03	Sensor, IR Carbon Dioxide (CO2) 0-5%, non explosion proof direct connect, replaceable sensor	700.00
61-0198RK-05	Sensor, IR Carbon Dioxide (CO2) 0-50%, non explosion proof direct connect, replaceable sensor	700.00
61-0198RK-10	Sensor, IR Carbon Dioxide (CO2) 0-100%, non explosion proof direct connect, replaceable sensor	700.00

Fixed Systems Sensors & Transmitters

Direct Connect Toxic Sensors no J-box

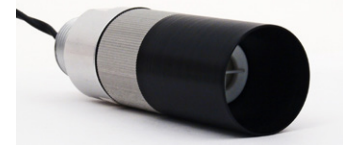
Non Explosion Proof Sensors, OK for Class I, Division 2, no J-box - CT-7 Series

Part#	Description	Suggested Retail
65-2302-NH3-75	Sensor, Ammonia (NH3), 0 - 75 ppm, CT-7 style, non explosion proof	730.00
65-2302-NH3-1	Sensor, Ammonia (NH3), 0 - 100 ppm, CT-7 style, non explosion proof	730.00
65-2302-NH3-2	Sensor, Ammonia (NH3), 0 - 200 ppm, CT-7 style, non explosion proof	730.00
65-2302-NH3-5	Sensor, Ammonia (NH3), 0 - 500 ppm, CT-7 style, non explosion proof	730.00
65-2302-CL2-3	Sensor, Chlorine (Cl2), 0 - 3 ppm, CT-7 style, non explosion proof	730.00
65-2302-CL2-5	Sensor, Chlorine (Cl2), 0 - 5 ppm, CT-7 style, non explosion proof	730.00
65-2302-CL2-10	Sensor, Chlorine (Cl2), 0 - 10 ppm, CT-7 style, non explosion proof	730.00
65-2302-CLO2-1	Sensor, Chlorine Dioxide (ClO2), 0 - 1 ppm, CT-7 style, non explosion proof	730.00
65-2302-CLO2-3	Sensor, Chlorine Dioxide (ClO2), 0 - 3 ppm, CT-7 style, non explosion proof	730.00
65-2302-CLO2-5	Sensor, Chlorine Dioxide (ClO2), 0 - 5 ppm, CT-7 style, non explosion proof	730.00
65-2302-HCN-15	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, CT-7 style, non explosion proof	730.00
65-2302-NO2	Sensor, Nitrogen Dioxide (NO2) sensor, 0 - 15 ppm, direct connection with conduit mounting, non explosion proof (no transmitter, no j-box)	730.00
65-2302-SO2-10	Sensor, Sulfur Dioxide (SO2), 0 - 10 ppm, CT-7 style, non explosion proof	730.00



Non Explosion Proof Sensors, OK for Class I, Division 2, no J-box - ESM-01 Series

Part#	Description	Suggested Retail
65-2300RK-NH3	Sensor, Ammonia (NH3) sensor, 0 - 75 ppm, direct connection with conduit mounting, non explosion proof (no transmitter, no j-box)	580.00
65-2300RK-ASH3	Sensor, Arsine (AsH3) sensor, 0 - 1.5 ppm, direct connection with conduit mounting, non explosion proof (no transmitter, no j-box)	580.00
65-2300RK-HCN	Sensor, Hydrogen Cyanide (HCN) sensor, 0 - 15 ppm, direct connection with conduit mounting non explosion proof (no transmitter, no j-box)	580.00
65-2300RK-PH3	Sensor, Phosphine (PH3) sensor, 0 - 1 ppm, direct connection with conduit mounting, non explosion proof (no transmitter, no j-box)	580.00
65-2300RK-SO2	Sensor, Sulfur Dioxide (SO2) sensor, 0 - 6 ppm, direct connection with conduit mounting, non explosion proof (no transmitter, no j-box)	580.00



Fixed Systems Sensors & Transmitters

Direct Connect Sensors with J-box

Explosion Proof: Class I, Division 1 Approved



Part#	Description	Suggested Retail
61-1000RK	Sensor, LEL combustible (catalytic) with explosion proof j-box (no transmitter), (specify calibration), UL version	390.00
61-1000RK-05	Sensor, LEL combustible (catalytic) with explosion proof j-box (no transmitter), (specify calibration), CSA version	440.00
61-1001RK	Sensor, LEL Hydrogen (H2) specific with explosion proof j-box (no transmitter), UL version	540.00
61-1001RK-03	Sensor, LEL Hydrogen (H2) specific with explosion proof j-box (no transmitter) and calibration adapter (only for use without rain guard)	595.00
61-1001RK-05	Sensor, LEL Hydrogen (H2) specific with explosion proof j-box (no transmitter), CSA version	570.00
61-1003RK-CH4	Sensor, IR, Methane (CH4) 0 - 100% LEL, explosion proof with j-box, UL version	850.00
61-1003RK-HC	Sensor, IR, Hydrocarbons (HC) 0 - 100% LEL, isobutane standard calibration, explosion proof with j-box, UL version	850.00
61-1006RK-CH4	Sensor, IR, Methane (CH4) 0 - 100% VOL, with j-box, UL version	850.00
65-2515RK	Sensor, Oxygen (O2), capillary type, explosion proof with conduit mounting and j-box (no transmitter), CSA version	500.00
65-2437RK-05	Sensor, Carbon Monoxide (CO) with j-box, CSA version	540.00
65-2427RK-05	Sensor, Hydrogen Sulfide (H2S) with j-box, CSA version	540.00
65-2429	Sensor, Hydrogen Cyanide (HCN) with j-box, Available Q4 2022	900.00
61-1004RK-02	Sensor, IR, Carbon Dioxide (CO2) 0 - 5,000 ppm, explosion proof with j-box, UL version	850.00
61-1004RK-03	Sensor, IR, Carbon Dioxide (CO2) 0 - 5%, explosion proof with j-box, UL version	850.00
61-1004RK-05	Sensor, IR, Carbon Dioxide (CO2) 0 - 50%, explosion proof with j-box, UL version	850.00
61-1004RK-10	Sensor, IR, Carbon Dioxide (CO2) 0 - 100%, explosion proof with j-box, UL version	850.00

Non Explosion Proof Sensors, OK for Class I, Division 2

Part#	Description	Suggested Retail
65-2497RK	Sensor, Oxygen (O2) 0 - 25%, direct connect, capillary type, non explosion proof, with j-box	440.00
65-2502RK	Sensor, Oxygen (O2) with j-box and I.S. barrier, partial pressure type, (no explosion proof approval)	370.00
65-2498RK	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, direct connect, non explosion proof, with j-box	460.00
65-2499RK	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, direct connect, non explosion proof, with j-box	460.00
61-1007RK-02	Sensor, IR, Carbon Dioxide (CO2) 0 - 5,000 ppm, non explosion proof with j-box	800.00
61-1007RK-03	Sensor, IR, Carbon Dioxide (CO2) 0 - 5%, non explosion proof with j-box	800.00
61-1007RK-05	Sensor, IR, Carbon Dioxide (CO2) 0 - 50%, non explosion proof with j-box	800.00
61-1007RK-10	Sensor, IR, Carbon Dioxide (CO2) 0 - 100%, non explosion proof with j-box	800.00

Direct Connect Toxic Sensors, with J-box, Non Explosion Proof, OK for Class I, Division 2

CT-7 Series with J-box

Part#	Description	Suggested Retail
65-2303-NH3-75	Sensor, Ammonia (NH3), 0 - 75 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-NH3-1	Sensor, Ammonia (NH3), 0 - 100 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-NH3-2	Sensor, Ammonia (NH3), 0 - 200 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-NH3-5	Sensor, Ammonia (NH3), 0 - 500 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-CL2-3	Sensor, Chlorine (Cl2), 0 - 3 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-CL2-5	Sensor, Chlorine (Cl2), 0 - 5 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-CL2-10	Sensor, Chlorine (Cl2), 0 - 10 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-CLO2-1	Sensor, Chlorine Dioxide (ClO2), 0 - 1 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-CLO2-3	Sensor, Chlorine Dioxide (ClO2), 0 - 3 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-CLO2-5	Sensor, Chlorine Dioxide (ClO2), 0 - 5 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-HCN-15	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-NO2	Sensor, Nitrogen Dioxide (NO2), 0 - 15 ppm, CT-7 style with j-box, non explosion proof	850.00
65-2303-SO2-10	Sensor, Sulfur Dioxide (SO2) 0 - 10 ppm, CT-7 style with j-box, non explosion proof	850.00



Note: **Stainless steel junction box for Direct Connect or S2 Series** can be supplied for an additional \$100.00 upon request instead of standard aluminum junction box. To order stainless junction box, just add 'SS' to the end of the part #..

Ex: 61-1000RKSS, or 65-2405RKSS.

Fixed Systems Sensors & Transmitters

Direct Connect Toxic Sensors with J-box, Non Explosion Proof, OK for Class I, Division 2

ESM-01 Series with J-box

Part#	Description	Suggested Retail
65-2301RK-NH3	Sensor, Ammonia (NH3) sensor, 0 - 75 ppm, direct connection, non explosion proof with j-box (no transmitter)	700.00
65-2301RK-ASH3	Sensor, Arsine (AsH3) sensor, 0 - 1.5 ppm, direct connection, non explosion proof with j-box (no transmitter)	700.00
65-2301RK-HCN	Sensor, Hydrogen Cyanide (HCN) sensor, 0 - 15 ppm, direct connection, non explosion proof with j-box (no transmitter)	700.00
65-2301RK-PH3	Sensor, Phosphine (PH3) sensor, 0 - 1 ppm, direct connection, non explosion proof with j-box (no transmitter)	700.00
65-2301RK-SO2	Sensor, Sulfur Dioxide (SO2) sensor, 0 - 6 ppm, direct connection, non explosion proof with j-box (no transmitter)	700.00



Direct Connect Sensors Remote Mount with Calibration Adapter / Splash Guard **Explosion Proof Class I, Division 1 Approved**

Includes diffusion calibration adapter for sample tube connection.

Part#	Description	Suggested Retail
61-1000RK-04	Sensor, LEL combustible (catalytic) with explosion proof j-box (no transmitter), (specify calibration) and calibration adapter/splash guard	465.00
61-1001RK-04	Sensor, LEL Hydrogen (H2) specific with explosion proof j-box (no transmitter) and calibration adapter/splash guard	615.00
61-1003RK-CH4-4	Sensor, IR, Methane (CH4) 0 - 100% LEL, explosion proof with j-box and calibration adapter/splash guard	890.00
61-1003RK-HC-04	Sensor, IR, Hydrocarbon (HC) 0 - 100% LEL, explosion proof with j-box and calibration adapter/splash guard	890.00

Includes diffusion cal cup **with splash guard** for sample tube connection.

Note: Tubing sold separately. Recommended tubing size for standard sensors is 3/16" x 5/16". For IR XP sensors use 1/4" ID x 3/8" OD tubing. **Not recommended for toxic gases.**

61-1000RK-04



81-1116RK
cal cup

61-1003RK-CH4-04



81-1103RK-01
cal cup / splash guard for IR

Fixed Systems Sensors & Transmitters

Direct Connect Replacement Sensors For Explosion Proof

Part#	Description	Suggested Retail
61-0140RK	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), UL version	280.00
61-0140RK-05	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), cCSAus version	320.00
61-0190RK-CH4	Sensor, Methane (CH4) 0 - 100% LEL, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-0190RK-HC	Sensor, Hydrocarbon (HC) 0 - 100% LEL, IR, isobutane standard calibration, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-0191RK-02	Sensor, Carbon Dioxide (CO2) 0 - 5,000 ppm, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-03	Sensor, Carbon Dioxide (CO2) 0 - 5%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-05	Sensor, Carbon Dioxide (CO2) 0 - 50%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-10	Sensor, Carbon Dioxide (CO2) 0 - 100%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0192RK-CH4	Sensor, Methane (CH4) 0 - 100% volume, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-5039RK-CH4	Sensor, Methane (CH4) 0-100% LEL, IR, plug-in style	400.00
61-5039RK-HC	Sensor, Hydrocarbon (HC) 0-100% LEL, IR, plug-in style	400.00
61-5040RK-03	Sensor, IR Carbon Dioxide (CO2) 0-5%, plug-in type, non-explosion proof	400.00
61-5040RK-05	Sensor, IR Carbon Dioxide (CO2) 0-50%, plug-in type, non-explosion proof	400.00
61-5040RK-10	Sensor, IR Carbon Dioxide (CO2) 0-100%, plug-in type, non-explosion proof	400.00
65-1025RK	Sensor, Oxygen (O2) 0 - 25%, capillary type, plug-in replacement for O2 assembly (65-2514RK & 65-2497RK)	140.00
65-2049-01	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, CT-7 style, explosion proof and non explosion proof	340.00
65-2510RK	Sensor, Oxygen (O2) 0 -25%, non explosion proof direct connect, partial pressure type (no transmitter, no j-box)	270.00
ES-1531-CO	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, plug-in type, CT-7 style, cCSAus version	195.00
ES-1537-H2S	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, plug-in type, CT-7 style, cCSAus version	195.00
NC-6205-01	Sensor, LEL Hydrogen (H2) specific, 1/2 NPT, with guard and silicone resistance, UL version, (no transmitter, no j-box)	400.00
NC-6205-05	Sensor, LEL Hydrogen (H2) specific, explosion proof direct connection, with silicone resistance, cCSAus version, (no transmitter, no j-box)	450.00

Direct Connect Replacement Sensors For Non Explosion Proof

Part#	Description	Suggested Retail
65-1025RK	Sensor, Oxygen (O2) 0 - 25%, capillary type, plug-in replacement for O2 assembly (65-2514RK & 65-2497RK)	140.00
65-2510RK	Sensor, Oxygen (O2) 0 -25%, non explosion proof direct connect, partial pressure type (no transmitter, no j-box)	270.00
ES-1537-H2S	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, plug-in type, CT-7 style, cCSAus version	195.00
ES-1531-CO	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, plug-in type, CT-7 style, cCSAus version	195.00
61-5040RK-02	Sensor, IR Carbon Dioxide (CO2) 0-5,000 ppm, plug-in type, non-explosion proof	400.00
61-5040RK-03	Sensor, IR Carbon Dioxide (CO2) 0-5%, plug-in type, non-explosion proof	400.00
61-5040RK-05	Sensor, IR Carbon Dioxide (CO2) 0-50%, plug-in type, non-explosion proof	400.00
61-5040RK-10	Sensor, IR Carbon Dioxide (CO2) 0-100%, plug-in type, non-explosion proof	400.00

Fixed Systems Sensors & Transmitters

Direct Connect Replacement CT-7 Toxic Sensors

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
65-2054-01	Sensor, Ammonia (NH3) 0-75 ppm, -100 ppm, -200ppm, Sensoric CT-7 style with added membrane	450.00
65-2053-01	Sensor, Ammonia (NH3) 0-500 ppm, Sensoric CT-7 style with added membrane	450.00
65-2051-01	Sensor, Chlorine (Cl2), 0 - 5 ppm / 0 - 10 ppm, CT-7 style with added membrane	450.00
65-2052-01	Sensor, Chlorine Dioxide (ClO2), 0 - 1 ppm / 0 - 3 ppm / 0 - 5 ppm, CT-7 style with added membrane	450.00
65-2049-01	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, CT-7 style, explosion proof and non explosion proof	450.00
65-2058-01	Sensor, Nitrogen Dioxide (NO2), 0 - 15 ppm, CT-7 style with added membrane	450.00
65-2024-01	Sensor, Sulfur Dioxide (SO2), 0 - 10 ppm, CT-7 style with added membrane	340.00

Direct Connect Replacement ESM-01 Toxic Sensors

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
ESM-01R-D-NH3	Sensor, Ammonia (NH3), 0 - 75 ppm, ESM-01 plug-in type, for diffusion instruments	195.00
ESM-01DH-ASH3	Sensor, Arsine (AsH3), 0 - 1.50 ppm, ESM-01 plug-in type	195.00
ESM-01DH-D-HCN	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, ESM-01 plug-in type	195.00
ESM-01DH-PH3	Sensor, Phosphine (PH3), 0 - 1.0 ppm, ESM-01 plug-in type	195.00
ESM-K01-D-CL2	Sensor, Chlorine (Cl2), 0 - 3 ppm, ESM-01 plug-in diffusion type	195.00
ESM-01DH-D-SO2	Sensor, Sulfur Dioxide (SO2), 0 - 6 ppm, ESM-01 plug-in type	195.00

S2 SENSOR / TRANSMITTER



Available gases include

- LEL, H₂S, CO, PPM H₂, and CO₂
- Toxic gases include NH₃, AsH₃, Cl₂, ClO₂, HCN, & SO₂

Infrared sensor for combustibles and CO₂

Hydrogen-Specific now available

Patented water repellent sensor coating

4-20 mA output

Explosion proof construction

Optional stainless steel junction box

The RKI S2 series gas sensor/transmitters are highly reliable and very cost effective for the detection of common gas hazards. The S2 series are available for LEL, H₂ Specific (LEL, and ppm), Oxygen, H₂S, CO, and for a variety of toxic gases. The transmitters for LEL, H₂ Specific, Oxygen, H₂S, CO₂, and Carbon Monoxide are explosion-proof with flame arrestors, and approved for use in hazardous areas (Class I, Div 1 Groups B, C, D). An optional non-explosion proof version is available for oxygen, H₂S, CO, and CO₂ in Class 1 Div 2. LEL sensors are available using catalytic bead and infrared technologies.

The toxic sensors are electrochemical type plug-in sensors, which provide high specificity, fast response, and long life. The plug-in design allows quick replacement in the field with no tools required. Toxic sensors are designed for use in Class I, Div. 2 hazardous locations. Sensors available for NH₃, AsH₃, Cl₂, ClO₂, HCN, PH₃, and SO₂.

The S2 transmitters can be used either indoors or outdoors. The flame arrestors for the explosion-proof versions utilize a patented coating which make them water repellent. Splash guards are also available for use in very wet environments. An optional stainless steel junction box is available for corrosive environments.

All of the S2 transmitters are designed to interface with RKI controllers, or with PLC/DCS systems.

World Leader In Gas Detection & Sensor Technology

RKI Instruments, Inc. | 33248 Central Ave. Union City, CA 94587 | Phone (800) 754-5165 | (510) 441-5656 | Fax (510) 441-5650

www.rkiinstruments.com

Explosion Proof

Class I, Div. 1 , Groups B, C, D

	LEL General Purpose	LEL H2 Specific	H2 PPM Hydrogen	O2 Oxygen	H2S Hydrogen Sulfide	CO Carbon Monoxide	CH4 Methane IR	HC Hydrocarbons IR	CO2 Carbon Dioxide IR
 Part #	65-2405RK	65-2451RK	65-2443-500 65-2443-1000 65-2443-2000	65-2322RK	65-2331RK	65-2336RK	65-2394RK-CH4	65-2394RK-HC	65-2396RK-02
	65-2405RK-05	65-2451RK-05							65-2396RK-03 65-2396RK-05 65-2396RK-10
Sensor	Catalytic		Metal oxide semiconductor	Galvanic cell	Electrochemical		Infrared		
Measuring Range	0-100% LEL	0-100% LEL (H2 Specific)	0-500 ppm 0-1000 ppm 0-2000 ppm	0-25% Vol.	0-100 ppm	0-300 ppm	0-100% LEL		0 - 5000 ppm 0 - 5% Vol. 0 - 50% Vol. 0 - 100% Vol.
Lower Detectable Limit (LDL)	2% of full scale			0.1% Vol.	2% of full scale				
Accuracy (whichever is greater)	± 5% of reading or ± 2% LEL		± 10% of full scale	± 0.5% O2	± 5% of reading ± 2 ppm H2S	± 5% of reading ± 5 ppm CO	± 5% of reading or ± 2% of full scale		
Response Time (T-90)	30 Seconds	20 Seconds	45 Seconds	90 Seconds	60 Seconds	90 Seconds	30 Seconds		
Max Current Draw (24VDC)	70 mA (power wires) 25 mA (signal wires) 3 wires			25 mA max, 2 wires			60 mA (power wires) 25 mA (signal wires) 3 wires		
Life Expectancy	2 to 3 years with normal exposure to flammable gas	3-5 years with normal service	5 years plus with normal service	2-3 years with normal service			5 years plus with normal service		
Operating Environment									
Location	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, and D.								
Temperature	-40°F to 167°F -40°C to 75°C		-4°F to 104°F -20°C to 40°C	-4°F to 113°F -20°C to 45°C	-40°F to 104°F -40°C to 40°C	23°F to 104°F -5°C to 40°C	-40°F to 122°F -40°C to 50°C		
Humidity	0 - 99% RH, non condensing								
Housing									
Housing J Box	Cast aluminum explosion proof, optional stainless steel J-box available								
Sensor	Stainless steel explosion proof								
Controls									
Zero	Sets transmitter output to 4 mA with zero output from sensor								
Span	Sets transmitter output to proper level when span gas is applied								
Output	4 - 20 mA signal								
Operating Voltage	11 VDC to 30 VDC		19 VDC to 30 VDC	19-30VDC (250 OHMS impedance max)			11 VDC to 30 VDC		
Approvals	65-2405RK UL	65-2451RK UL	65-2443-500 UL 65-2443-1000 UL 65-2443-2000 UL	CSA NRTL			C UL US		
	65-2405RK-05 CSA	65-2451RK-05 CSA	65-2443-500-05 CSA 65-2443-1000-05 CSA 65-2443-2000-05 CSA						
Controllers	Compatible with the following controllers: Beacon 110, Beacon 200, Beacon 410A, and 800, also PLC and DCS systems								
Warranty	One year materials and workmanship								

Toxic Gas Transmitters

Class I, Div. 2

	O2 Oxygen	H2S Hydrogen Sulfide	CO Carbon Monoxide	Toxics See chart below	CO2 Carbon Dioxide
 Part #	65-2320RK	65-2330RK	65-2335RK	See chart below	65-2397RK-02 65-2397RK-03 65-2397RK-05 65-2397RK-10
Sensor	Galvanic cell	Electrochemical			Infrared
Measuring Range	0-25% Vol.	0-100 ppm	0-300 ppm	See chart below	0 - 5000 ppm 0 - 5% Vol. 0 - 50% Vol. 0 - 100% Vol.
Lower Detectable Limit (LDL)	0.1% Vol.	2% of full scale			
Accuracy (whichever is greater)	± 0.5% O2	± 5% of reading ± 2 ppm H2S	± 5% of reading ± 5 ppm CO	± 10% of reading or ± 5% of full scale	± 5% of reading or ± 2% of full scale
Response Time (T-90)	20 Seconds	45 Seconds	30 Seconds	60 Seconds	30 Seconds
Max Current Draw (24VDC)	25 mA max, 2 wires				60 mA (power wires) 25 mA (signal wires) 3 wires
Life Expectancy	2 years normal service	2 to 3 years with normal service			5 years plus with normal service
Operating Environment					
Location	Indoor Class I, Div. 2				
Temperature	-4°F to 122°F -20°C to 50°C			14°F to 104°F -10°C to 40°C	-40°F to 122°F -40°C to 50°C
Humidity	0 - 99% RH non condensing			5-95% RH	0 - 99% RH non condensing
Housing					
Housing J-Box	Cast aluminum, explosion-proof				
Sensor	Plastic or aluminum				
Controls					
Zero	Sets transmitter output to 4 mA with zero output from sensor				
Span	Sets transmitter output to 20 mA with full scale output from sensor				
Operating Voltage	19 VDC to 30 VDC				
Output	4-20 mA signal				
Controllers	Compatible with the following controllers: Beacon 110, Beacon 200, Beacon 410A, and 800, also PLC and DCS systems				
Warranty	One year materials and workmanship				

* Partial pressure sensor for helium (He) applications. Consult factory for details.

S2 Non Explosion Proof Toxic Assemblies					
 ESM-01	 CT-7	Part Number With J-Box	Gas	Range	Sensor Type
* Sensor being phased out, use CT-7 type when possible.		65-2340RK-NH3	Ammonia (NH3)*	0 - 75.0 ppm	0.1 ppm
		65-2341-NH3-75	Ammonia (NH3)	0 - 75.0 ppm	0.1 ppm
		65-2341-NH3-1	Ammonia (NH3)	0 - 100 ppm	1 ppm
		65-2341-NH3-2	Ammonia (NH3)	0 - 200 ppm	1 ppm
		65-2341-NH3-5	Ammonia (NH3)	0 - 500 ppm	1 ppm
		65-2340RK-AsH3	Arsine (AsH3)	0 - 1.50 ppm	0.01 ppm
		65-2341-CL2-3	Chlorine (Cl2)	0 - 3.00 ppm	0.01 ppm
		65-2341-CL2-05	Chlorine (Cl2)	0 - 5.00 ppm	0.02 ppm
		65-2341-CL2-10	Chlorine (Cl2)	0 - 10.0 ppm	0.1 ppm
		65-2341-CLO2-1	Chlorine Dioxide (ClO2)	0 - 1.00 ppm	0.01 ppm
		65-2340RK-HCN	Hydrogen Cyanide (HCN)	0 - 15.0 ppm	0.1 ppm
		65-2340RK-PH3	Phosphine (PH3)	0 - 1.00 ppm	0.01 ppm
		65-2340RK-SO2	Sulfur Dioxide (SO2)	0 - 6.00 ppm	0.01 ppm

S2 SENSOR / TRANSMITTER



AC power supply



Remote horns & lights



Calibration kits



Calibration adaptors



Splash guards



Flow through adaptors



Dataloggers



Remote Mount
Calibration Adaptor

Direct Interface with Beacon 110 / 200 / 410A / 800 Controllers

S2 Wiring Matrix				
S2 Transmitter	Number of Wires to Controller	Maximum Distance to Controller		
		18 AWG wire	16 AWG wire	14 AWG wire
LEL / IR / CO2	3	2500 ft.	5,000 ft.	8,000 ft.
Oxygen	2	2500 ft.	5,000 ft.	8,000 ft.
H2S	2	2500 ft.	5,000 ft.	8,000 ft.
CO	2	2500 ft.	5,000 ft.	8,000 ft.
Toxics	2	2500 ft.	5,000 ft.	8,000 ft.

Made in the USA

Authorized Distributor:



Fixed Systems Sensors & Transmitters

S2 Series Diffusion Sensor / Transmitter

ORDERING INFORMATION: All S2 Series pricing includes the sensor and explosion proof housing.

Explosion Proof S2 Assemblies: Class I, Division 1 Approved

Part#	Description	Suggested Retail
65-2405RK	S2 Series LEL 0-100% sensor (catalytic) / transmitter with explosion proof j-box, UL version, (specify calibration)	620.00
65-2405RK-05	S2 Series LEL 0-100% sensor (catalytic) / transmitter with explosion proof j-box, CSA version, (specify calibration)	670.00
65-2394RK-CH4	S2 Series IR, Methane (CH4) 0-100% LEL sensor / transmitter with explosion proof j-box	1,040.00
65-2395RK-CH4	S2 Series IR, Methane (CH4) 0-100% volume sensor / transmitter with explosion proof j-box	1,140.00
65-2446-500	S2 Series MOS, Hexane (C6H14) 0-500 ppm linearized sensor/transmitter, dual pot, with explosion proof j-box, UL	820.00
65-2446-500-05	S2 Series MOS, Hexane (C6H14) 0-500 ppm linearized sensor/transmitter, dual pot with explosion proof j-box, CSA	870.00
65-2451RK	S2 Series Hydrogen (H2) specific 0 - 100% LEL sensor/transmitter with explosion proof j-box, UL	770.00
65-2451RK-05	S2 Series Hydrogen (H2) specific 0 - 100% LEL sensor/transmitter with explosion proof j-box, CSA	820.00
65-2445-100	S2 Series Hydrogen (H2) specific 0 - 100 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, UL	820.00
65-2445-100-05	S2 Series Hydrogen (H2) specific 0 - 100 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, CSA	870.00
65-2445-500	S2 Series Hydrogen (H2) specific 0 - 500 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, UL	820.00
65-2445-500-05	S2 Series Hydrogen (H2) specific 0 - 500 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, CSA	870.00
65-2445-1000	S2 Series Hydrogen (H2) specific 0 - 1000 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, UL	820.00
65-2445-1000-05	S2 Series Hydrogen (H2) specific 0 - 1000 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, CSA	870.00
65-2445-2000	S2 Series Hydrogen (H2) specific 0 - 2000 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, UL	820.00
65-2445-2000-05	S2 Series Hydrogen (H2) specific 0 - 2000 ppm linearized, dual-pot MOS sensor/transmitter with explosion proof j-box, CSA	870.00
65-2462RK	S2 Series TC, Hydrogen (H2) 0-10% vol sensor / transmitter, explosion proof with j-box	1,100.00
65-2394RK-HC	S2 Series IR, Hydrocarbon (HC) 0-100% LEL sensor / transmitter with explosion proof j-box	1,040.00
65-2322RK	S2 Series Capillary type, Oxygen (O2) 0-25 sensor/transmitter, explosion proof with j-box, CSA version ...	690.00
65-2336RK	S2 Series Carbon Monoxide (CO) 0-300 ppm sensor / transmitter, explosion proof with j-box, CSA version	790.00
65-2331RK	S2 Series Hydrogen Sulfide (H2S) 0-100 ppm sensor / transmitter, explosion proof with j-box, CSA version	790.00
65-2333	S2 Series Hydrogen Cyanide (HCN) sensor / transmitter, explosion proof with j-box, CSA version	995.00
65-2396RK-10	S2 Series IR Carbon Dioxide (CO2) 0-100% sensor / transmitter, explosion proof with j-box, UL version	1,040.00
65-2396RK-02	S2 Series IR Carbon Dioxide (CO2) 0-5,000 ppm sensor / transmitter, explosion proof with j-box, UL version	1,040.00
65-2396RK-03	S2 Series IR Carbon Dioxide (CO2) 0-5% sensor / transmitter, explosion proof with j-box, UL version ...	1,040.00
65-2396RK-05	S2 Series IR Carbon Dioxide (CO2) 0-50% sensor / transmitter, explosion proof with j-box, UL version	1,040.00



Note: **Stainless steel junction box for Direct Connect or S2 Series** can be supplied for an additional \$100.00 upon request instead of standard aluminum junction box. To order stainless junction box, just add 'SS' to the end of the part #.
Example: 61-1000RKSS, or 65-2405RKSS.

Fixed Systems Sensors & Transmitters

S2 Assemblies, Non Explosion Proof, OK for Class I, Division 2

Part#	Description	Suggested Retail
65-2321RK	S2 Series Oxygen (O2) 0-25% sensor / transmitter, (capillary type) non explosion proof with j-box	560.00
65-2320RK	S2 Series Oxygen (O2) 0-25% sensor / transmitter (partial pressure), non explosion proof with j-box	560.00
65-2320RK-100	S2 Series Oxygen (O2) 0-100% sensor / transmitter (partial pressure), non explosion proof with j-box ...	560.00
65-2330RK	S2 Series Hydrogen Sulfide (H2S) 0-100 ppm sensor / transmitter, non explosion proof with j-box	690.00
65-2335RK	S2 Series Carbon Monoxide (CO) 0-300 ppm sensor / transmitter, non explosion proof with j-box	690.00
65-2397RK-02	S2 Series IR Carbon Dioxide (CO2) 0-5,000 ppm, non explosion proof with j-box	940.00
65-2397RK-03	S2 Series IR Carbon Dioxide (CO2) 0-5%, non explosion proof with j-box	940.00
65-2397RK-05	S2 Series IR Carbon Dioxide (CO2) 0-50%, non explosion proof with j-box	940.00
65-2397RK-10	S2 Series IR Carbon Dioxide (CO2) 0-100%, non explosion proof with j-box	940.00

S2 Series Diffusion Sensor / Transmitter With CT-7 Toxic Sensor

Non Explosion Proof, OK for Class I, Division 2

Part#	Description	Suggested Retail
65-2341-NH3-75	S2 Series Ammonia (NH3) 0 - 75 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-NH3-1	S2 Series Ammonia (NH3) 0 - 100 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-NH3-2	S2 Series Ammonia (NH3) 0 - 200 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-NH3-5	S2 Series Ammonia (NH3) 0 - 500 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-CL2-3	S2 Series Chlorine (Cl2) 0 - 3 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-CL2-5	S2 Series Chlorine (Cl2) 0 - 5 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-CL2-10	S2 Series Chlorine (Cl2) 0 - 10 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box ...	1,150.00
65-2341-CLO2-1	S2 Series Chlorine Dioxide (ClO2) 0 - 1 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-CLO2-3	S2 Series Chlorine Dioxide (ClO2) 0 - 3 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-CLO2-5	S2 Series Chlorine Dioxide (ClO2) 0 - 5 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-HCN-15	S2 Series Hydrogen Cyanide (HCN) 0 - 15 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-NO2	S2 Series Nitrogen Dioxide (NO2) 0 - 15 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00
65-2341-SO2-10	S2 Series Sulfur Dioxide (SO2) 0 - 10 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,150.00



S2 Series Diffusion Sensor / Transmitter With ESM-01 Toxic Sensor

Non Explosion Proof, OK for Class I, Division 2

Part#	Description	Suggested Retail
65-2340RK-NH3	S2 Series Ammonia (NH3) 0-75 ppm sensor / transmitter, non explosion proof with j-box	840.00
65-2340RK-ASH3	S2 Series Arsine (AsH3) 0-1.5 ppm sensor / transmitter, non explosion proof with j-box	840.00
65-2340RK-HCN	S2 Series Hydrogen Cyanide (HCN) 0-15 ppm sensor / transmitter, non explosion proof with j-box	840.00
65-2340RK-PH3	S2 Series Phosphine (PH3) 0-1 ppm sensor / transmitter, non explosion proof with j-box	840.00
65-2340RK-SO2	S2 Series Sulfur Dioxide (SO2) 0-6 ppm sensor / transmitter, non explosion proof with j-box	840.00



Fixed Systems Sensors & Transmitters

S2 Remote Mount with Calibration Adapter / Splash Guard

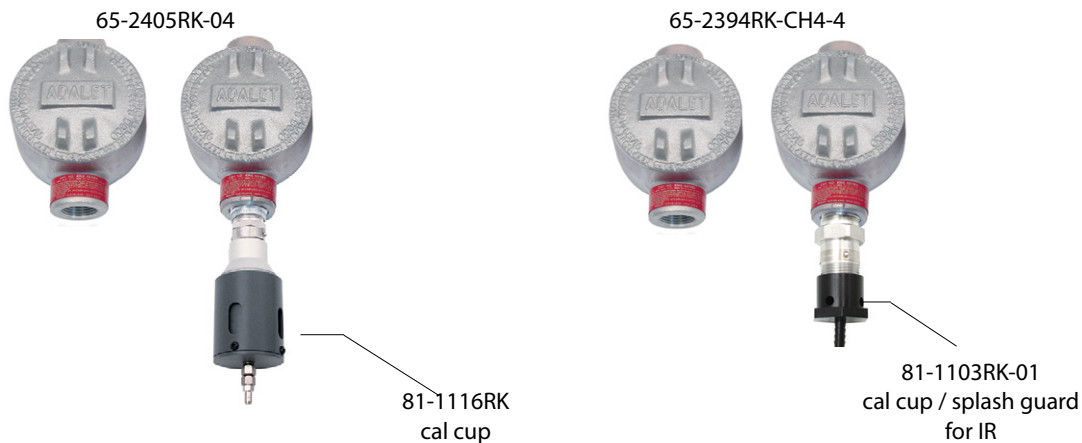
Explosion Proof, OK for Class I, Division 1

Part#	Description	Suggested Retail
65-2405RK-04	S2 Series LEL 0-100% sensor (catalytic) / transmitter with j-box, (specify calibration), remote detector and calibration adapter/splash guard	770.00
65-2451RK-04	S2 Series Hydrogen (H2) specific 0-100% LEL (catalytic) sensor/transmitter with j-box, remote detector and calibration adapter/splash guard	920.00
65-2394RK-CH4-4	S2 Series IR Methane (CH4) 0-100% LEL, sensor / transmitter, with j-box, remote detector and calibration adapter/splash guard	1,190.00

Includes diffusion calibration adapter for sample tube connection and extra j-box (S2 and M2 versions).

Includes diffusion calibration adapter / **splash guard** for sample tube connection and extra j-box.

Note: Tubing sold separately. Recommended tubing size for standard sensors is 3/16" x 5/16".
For IR XP sensors use 1/4" ID x 3/8" OD tubing. **Not recommended for toxic gases.**



Fixed Systems Sensors & Transmitters

Replacement Sensors For Explosion Proof S2 Series

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
61-0140RK	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), UL version	280.00
61-0140RK-05	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), cCSAus version	320.00
61-0190RK-CH4	Sensor, Methane (CH4) 0 - 100% LEL, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-5039RK-CH4	Sensor, Methane (CH4) 0-100% LEL, IR, plug-in style	400.00
61-0192RK-CH4	Sensor, Methane (CH4) 0 - 100% volume, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-0190RK-HC	Sensor, Hydrocarbon (HC) 0 - 100% LEL, IR, isobutane standard calibration, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-5039RK-HC	Sensor, Hydrocarbon (HC) 0-100% LEL, IR, plug-in style	400.00
NC-6205-01	Sensor, LEL Hydrogen (H2) specific, 1/2 NPT, with guard and silicone resistance, UL version, (no transmitter, no j-box)	400.00
NC-6205-05	Sensor, LEL Hydrogen (H2) specific, explosion proof direct connection, with silicone resistance, cCSAus version, (no transmitter, no j-box)	450.00
61-0160RK	Sensor, Hydrogen (H2) 0-2,000 ppm, MOS, 1/2 NPT, UL version	400.00
TE-7550-H2-L-01	Sensor, Hydrogen (H2) 0-10% volume, thermal conductivity, 1/2 NPT with guard, UL version	750.00
TE-7550-H2-L-02	Sensor, Hydrogen (H2) 0-10% volume, thermal conductivity, 1/2 NPT without guard, UL version	750.00
65-1025RK	Sensor, Oxygen (O2) 0 - 25%, capillary type, plug-in replacement for O2 assembly (65-2514RK & 65-2497RK)	140.00
ES-1531-CO	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, plug-in type, CT-7 style, cCSAus version	195.00
ES-1537-H2S	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, plug-in type, CT-7 style, cCSAus version	195.00
65-2049-01	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, CT-7 style, explosion proof and non explosion proof	450.00
61-0191RK-02	Sensor, Carbon Dioxide (CO2) 0 - 5,000 ppm, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-03	Sensor, Carbon Dioxide (CO2) 0 - 5%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-05	Sensor, Carbon Dioxide (CO2) 0 - 50%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-10	Sensor, Carbon Dioxide (CO2) 0 - 100%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00



Replacement Sensors For Non Explosion Proof S2 Series

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
65-1025RK	Sensor, Oxygen (O2) 0 - 25%, capillary type, plug-in replacement for O2 assembly (65-2514RK & 65-2497RK)	140.00
65-2510RK	Sensor, Oxygen (O2) 0 -25%, non explosion proof direct connect, partial pressure type t(no transmitter, no j-box)	270.00
ES-1537-H2S	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, plug-in type, CT-7 style, cCSAus version	195.00
ES-1531-CO	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, plug-in type, CT-7 style, cCSAus version	195.00
61-5040RK-02	Sensor, IR Carbon Dioxide (CO2) 0-5,000 ppm, plug-in type, non-explosion proof	400.00
61-5040RK-03	Sensor, IR Carbon Dioxide (CO2) 0-5%, plug-in type, non-explosion proof.....	400.00
61-5040RK-05	Sensor, IR Carbon Dioxide (CO2) 0-50%, plug-in type, non-explosion proof	400.00
61-5040RK-10	Sensor, IR Carbon Dioxide (CO2) 0-100%, plug-in type, non-explosion proof.....	400.00

Replacement CT-7 Toxic Sensors for S2 Series

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
65-2054-01	Sensor, Ammonia (NH3) 0-75 ppm, -100 ppm, -200ppm, Sensoric CT-7 style with added membrane	450.00
65-2053-01	Sensor, Ammonia (NH3) 0-500 ppm, Sensoric CT-7 style with added membrane	450.00
65-2051-01	Sensor, Chlorine (Cl2), 0 - 5 ppm / 0 - 10 ppm, CT-7 style with added membrane	450.00
65-2052-01	Sensor, Chlorine Dioxide (ClO2), 0 - 1 ppm / 0 - 3 ppm / 0 - 5 ppm, CT-7 style with added membrane.....	450.00
65-2049-01	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, CT-7 style, explosion proof and non explosion proof	450.00
65-2058-01	Sensor, Nitrogen Dioxide (NO2), 0 - 15 ppm, CT-7 style with added membrane	450.00
65-2024-01	Sensor, Sulfur Dioxide (SO2), 0 - 10 ppm, CT-7 style with added membrane	340.00

Fixed Systems Sensors & Transmitters

Replacement ESM-01 Toxic Sensors for S2 Series

Part#	Description	Suggested Retail
ESM-01R-D-NH3	Sensor, Ammonia (NH3), 0 - 75 ppm, ESM-01 plug-in type, for diffusion instruments	195.00
ESM-01DH-ASH3	Sensor, Arsine (AsH3), 0 - 1.50 ppm, ESM-01 plug-in type	195.00
ESM-01DH-D-HCN	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, ESM-01 plug-in type	195.00
ESM-01DH-PH3	Sensor, Phosphine (PH3), 0 - 1.0 ppm, ESM-01 plug-in type	195.00
ESM-K01-D-CL2	Sensor, Chlorine (Cl2), 0 - 3 ppm, ESM-01 plug-in diffusion type	195.00
ESM-01DH-D-SO2	Sensor, Sulfur Dioxide (SO2), 0 - 6 ppm, ESM-01 plug-in type	195.00



M2A-XL STAND ALONE TRANSMITTER



- Operates with or without a controller
- Direct digital readout with OLED cold temperature display
- Available gases include
 - LEL, O₂, H₂S, CO, CO₂, and 100% Vol CH₄
 - Toxic gases include NH₃, AsH₃, Cl₂, ClO₂, HCN, & SO₂
- Infrared sensor for combustibles and CO₂
- 4-20 mA & digital Modbus outputs standard
- 2 fully programmable alarm relays & fail relay
- Non-intrusive calibration via magnetic wand
- Explosion proof construction
- Patented water repellent sensor cover
- User friendly setup, push buttons & OLED menus
- Long-life sensors (2 + years typical)

The RKI M2A-XL™ is a state-of-the-art transmitter that can operate as an independent, stand-alone monitor or as part of an integrated system. The M2A-XL connects with an analog or digital signal to virtually any controller, PLC, or DCS. Setup procedures are simplified with user friendly push buttons and OLED menus. It utilizes a magnetic wand technique for performing non-intrusive calibration. The M2A-XL provides an automatic zero drift correction feature, which results in more stable readings and reduces the need for adjustments due to sensor aging.

The housing of the M2A-XL does not need to be opened for zeroing or calibration, making it unnecessary to declassify the area for routine maintenance. It is designed so that a complete field calibration can be performed by one person. Sensor construction is rated Class I, Div. 1 Groups B, C, D for flammables, CO, H₂S, O₂, and CO₂, and Class I, Div. 2 for all other toxics.

The transmitter provides a 4-20 mA output in addition to a Modbus digital output. It also has two levels of alarms with relays, plus a fail alarm with relay. A digital display of the gas concentration, as well as alarm and status lights, can be viewed through the front window.

The toxic sensors are electrochemical type plug-in sensors, which provide high specificity, fast response, and long life. The plug-in design allows quick replacement in the field with no tools required. Toxic sensors are designed for use in Class I, Div. 2 hazardous locations. Sensors available for NH₃, AsH₃, Cl₂, ClO₂, HCN, PH₃, and SO₂

The M2A-XL represents the latest leading edge technology in sensor / transmitters today.

World Leader In Gas Detection & Sensor Technology

Explosion Proof

Class I, Div. 1 , Groups B, C, D

			Combustibles		LEL	O2	H2S	CO	CH4	HC	CO2
	Part #	UL	LEL	PPM	H2 Specific	Oxygen	Hydrogen Sulfide	Carbon Monoxide	Methane	Hydrocarbons	Carbon Dioxide
		CSA									
			65-2640XL	65-2647XL	65-2641XL	65-2643XL-05	65-2645XL-05	65-2646XL-05	65-2649XL-CH4 65-2658XL-CH4	65-2649XL-HC	65-2660XL-02 65-2660XL-03 65-2660XL-05 65-2660XL-10
			65-2640XL-05	65-2647XL-05	65-2641XL-05						
Sensors			Catalytic			Galvanic cell	Electrochemical		Infrared		
Measuring Ranges	0 - 100% LEL		0 - 9000 ppm CH4	0 - 100% LEL	0 - 25.0% Vol.	0 - 100 ppm	0 - 300 ppm	0 - 100% LEL 0 - 100% Vol.	0 - 100% LEL	-02	0 - 5000 ppm
										-03	0 - 5% Vol.
										-05	0 - 50% Vol.
										-10	0 - 100% Vol.
Resolution	1% LEL	20 ppm	1% LEL	0.1% Vol.	1 ppm		1% LEL / 1% Vol.		20 ppm / 0.01% Vol / 0.1% Vol. / 1% Vol.		
Lower Detectable Limit (LDL)	2% of full scale				0.1% Vol.	2% of full scale					
Max Current Draw (24VDC)	160 mA with alarm 1 and alarm 2 active and all relays energized				125 mA with alarm 1 and alarm 2 active and all relays energized			160 mA with alarm 1 and alarm 2 active and all relays energized			
Response Time (T-90)	35 Seconds or less				90 Seconds or less	60 Seconds or less	90 Seconds or less	30 Seconds or less			
Life Expectancy	2 to 3 years with normal service		3 to 5 years with normal service		2 to 3 years with normal service			5 years plus with normal service			
Accuracy (which ever is greater)	± 5% of reading or ± 2% of full scale				± 0.5% Vol. O2	± 5% of reading or ± 2 ppm H2S	± 5% of reading or ± 5 ppm CO	± 5% of reading or ± 2 % of full scale			
Weather Resistant	Patented water repellent sensor coating										
Alarms											
Alarm Settings	Two fully programmable alarm set points, increasing / decreasing, latching / self-resetting, on delays, off delays, normally energized or de-energized										
Alarm Indication	Visual LEDs. Alarm 1, Amber; Alarm 2, Red; Fail, Red										
Relays	5 amp form 'C' contacts for alarm 1, alarm 2, and fail										
Physical											
Dimensions	Height: 6.2" (158 mm), Width: 5.66" (144 mm), Depth: 4.86" (124 mm)										
Display	Alphanumeric OLED display. 8 characters per line; 2 lines for gas concentration readout, plus user-friendly calibration and setup										
Enclosure	Explosion proof for Class I, Div 1, Groups B, C, D.										
Enclosure Rating	NEMA 4X, explosion proof, watertight, cast aluminum with o-ring seal and epoxy powder coating										
Controls	Magnet used for calibration functions. Calibrates without opening the housing. Internal push-button controls also available for calibration and setup										
Operating Environment											
Operating Temperature	-40°F to 167°F -40°C to 75°C				-4°F to 113°F -20°C to 45°C	-40°F to 104°F -40°C to 40°C	23°F to 104°F -5°C to 40°C	-40°F to 122°F -40°C to 50°C			
Relative Humidity	5 - 95% RH non-condensing										
Location	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, D.										
Operating Voltage	10 VDC - 30 VDC										
Outputs											
Analog	Linear 4-20 mA signal, into 1000 ohms impedance max (24DC), 0 - 500 ohms max (12VDC) corresponding to 0 - full scale										
Digital	Modbus RTU output standard, fully configurable, 2-wire RS-485, 1200 to 19.2k baud										
Approvals	65-2640XL UL		65-2641XL UL		C CSA US			C UL US			
	65-2640XL-05 C CSA US		65-2641XL-05 C CSA US								
Controllers	Beacon 110, Beacon 200, Beacon 410A, Beacon 800, Beacon 3200 as well as most DCS / PLC systems										
Warranty	One year material and workmanship										

*Partial pressure sensor for helium (He) applications. Consult factory for details.

Toxic Gas Transmitters

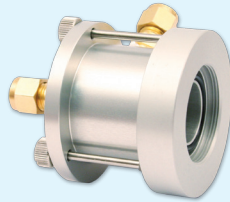
Class I, Div. 2

	O2 Oxygen	H2S Hydrogen Sulfide	CO Carbon Monoxide	Toxics See Chart Below	CO2 Carbon Dioxide	
 Part#	65-2666XL *65-2644XL	65-2662XL	65-2663XL	See Chart Below	65-2661XL-02 65-2661XL-03 65-2661XL-05 65-2661XL-10	
Sensors	Galvanic cell	Electrochemical			Infrared	
Measuring Ranges	0-25% Vol.	0-100 ppm	0-300 ppm	See Chart Below	-02 0 - 5000 ppm	
					-03 0 - 5% Vol.	
					-05 0 - 50% Vol.	
					-10 0 - 100% Vol.	
Resolution	0.1% Vol.	1 ppm		See Chart Below	20 ppm / 0.01% Vol. / 0.1% Vol. / 1%Vol.	
Lower Detectable Limit (LDL)	0.1% Vol.	2% of full scale				
Response Time (T-90)	35 Seconds or less			60 Seconds or less	30 Seconds or less	
Max Current Draw (24VDC)	125 mA with alarm 1 and alarm 2 active and all relays energized				160 mA with alarm 1 and alarm 2 active and all relays energized	
Life Expectancy	2 to 3 years with normal service				5 years plus	
Accuracy (which ever is greater)	± 0.5% Vol. O2	± 5% of reading or ± 2 ppm H2S	± 5% of reading or ± 5 ppm CO	± 10% of reading or ± 5% of full scale	± 5% of reading or ± 2% of full scale	
Alarms						
Alarm Settings	Two fully programmable alarm set points, increasing / decreasing, latching / self-resetting, on delays, off delays, normally energized or de-energized,					
Alarm Indication	Visual LEDs. Alarm 1=Amber; Alarm 2=Red; Fail=Red					
Relays	5 Amp form 'C' contacts for alarm 1, alarm 2, and fail					
Physical						
Dimensions	Height: 6.2" (158 mm), Width: 5.66" (144 mm), Depth: 4.86" (124 mm)					
Display	Alphanumeric OLED display. 8 characters per line; 2 lines for gas concentration readout, plus user-friendly calibration and setup					
Sensor Rating	Non explosion proof construction, designed for Class I, Div. 2, Groups B, C, D (no certification)					
Housing J-Box	NEMA 4X, explosion proof, watertight, cast aluminum with o-ring seal and epoxy powder coating					
Controls	Magnet used for calibration functions. Calibrates without opening the housing. Internal push-button controls also available for calibration and setup					
Sensor	Aluminum / Plastic (non explosion proof)					
Operating Environment						
Operating Temperature	-4°F to 113°F -20°C to 45°C	-40°F to 104°F -40°C to 40°C	23°F to 104°F -5°C to 40°C	14°F to 104°F -10°C to 40°C	-40°F to 122°F -40°C to 50°C	
Relative Humidity	5 - 95% RH non-condensing					
Location	Indoor or outdoor					
Operating Voltage	10 VDC - 30 VDC					
Outputs						
Analog	Linear 4-20 mA signal, into 1000 ohms impedance max (24DC), 0 - 500 ohms max (12VDC) corresponding to 0 - full scale					
Digital	Modbus RTU output standard, fully configurable, 2-wire RS-485, 1200 to 19.2k baud					
Controllers	Beacon 110, Beacon 200, Beacon 410A, Beacon 800, Beacon 3200 as well as most DCS / PLC systems					
Warranty	One year materials and workmanship					
 ESM-01 * Sensor being phased out, use CT-7 type when possible.	 CT-7	M2A-XL Toxic Transmitter Sensor Ordering Information				
		Part Number With J-Box	Gas	Range	Resolution	Sensor Type
		65-2670XL-NH3-75	Ammonia (NH3)	0 - 75.0 ppm	0.1 ppm	CT-7
		65-2670XL-NH3-1	Ammonia (NH3)	0 - 100 ppm	1 ppm	CT-7
		65-2670XL-NH3-2	Ammonia (NH3)	0 - 200 ppm	1 ppm	CT-7
		65-2670XL-NH3-5	Ammonia (NH3)	0 - 500 ppm	1 ppm	CT-7
		65-2670XL-NO2	Nitrogen Dioxide (NO2)	0 - 15.0 ppm	1 ppm	CT-7
		65-2648XL-AsH3	Arsine (AsH3)	0 - 1.50 ppm	0.1 ppm	ESM -01
		65-2670XL-CL2-3	Chlorine (Cl2)	0 - 3.00 ppm	0.01 ppm	CT-7
		65-2670XL-CL2-10	Chlorine (Cl2)	0 - 10.0 ppm	0.1 ppm	CT-7
		65-2670XL-CLO2	Chlorine Dioxide (ClO2)	0 - 1.00 ppm	0.01 ppm	CT-7
		65-2648XL-HCN	Hydrogen Cyanide (HCN)	0 - 15.0 ppm	0.1 ppm	CT-7
		65-2648XL-PH3	Phosphine (PH3)	0 - 1.00 ppm	0.01 ppm	ESM -01
		65-2648XL-SO2	Sulfur Dioxide (SO2)	0 - 6.00 ppm	0.01 ppm	ESM -01

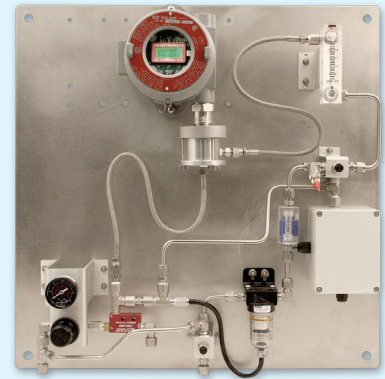
AVAILABLE ACCESSORIES



Remote Mount
Calibration Adaptor



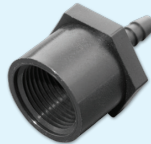
Flow through adaptors



Air aspirator adaptors / panels



Remote horns & lights



Calibration adaptors



Calibration kits

Direct Interface with Beacon 110 / 200 / 410A / 800 / 3200 Controllers

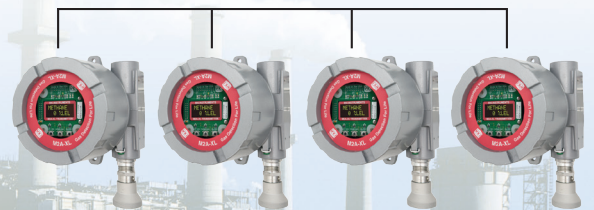
M2A-XL Wiring Matrix

	Number of Wires to Controller	Maximum Distance to Controller		
		18 AWG wire	16 AWG wire	14 AWG wire
M2A-XL Transmitter	3	2500 ft.	5,000 ft.	8,000 ft.



Made in the USA

Authorized Distributor:



Gas Detection For Life

Fixed Systems Sensors & Transmitters

M2A-XL Series Stand Alone Transmitter

ORDERING INFORMATION: All M2A-XL pricing includes the sensor and explosion proof housing.



Explosion Proof M2A-XL Assemblies: Class I, Division 1 Approved

Part#	Description	Suggested Retail
65-2640XL	M2A-XL, LEL 0-100% sensor (catalytic) / transmitter with j-box, (specify calibration), UL version	1,320.00
65-2640XL-05	M2A-XL, LEL 0-100% sensor (catalytic) / transmitter with j-box, (specify calibration), cCSAus version ...	1,370.00
65-2647XL	M2A-XL, Methane (CH4) 0-9,000 ppm, sensor / transmitter with j-box	1,400.00
65-2647XL-05	M2A-XL, Methane (CH4) 0-9,000 ppm, sensor / transmitter with j-box, cCSAus version	1,450.00
65-2667XL-CH4	M2A-XL, Methane (CH4) 0-100% LEL, transmitter with plug-in style sensor and j-box, UL 2075 approval	1,870.00
65-2667XL-HC	M2A-XL, Hydrocarbons (HC) LEL 0-100% transmitter with plug-in style sensor and j-box.....	1,870.00
65-2641XL	M2A-XL, Hydrogen (H2) specific LEL 0-100% sensor (catalytic) / transmitter with j-box, UL version	1,470.00
65-2641XL-05	M2A-XL, Hydrogen (H2) specific LEL 0-100% sensor (catalytic) / transmitter with j-box, CSA version ...	1,520.00
65-2643XL-05	M2A-XL, Oxygen (O2) 0-25%, sensor / transmitter with j-box, cCSAus version	1,370.00
65-2646XL-05	M2A-XL, Carbon Monoxide (CO) 0-300 ppm, sensor / transmitter with j-box, cCSAus version	1,470.00
65-2645XL-05	M2A-XL, Hydrogen Sulfide (H2S) 0-100 ppm, sensor / transmitter with j-box, cCSAus version	1,470.00
65-2642XL	M2A-XL, Hydrogen Cyanide (HCN) 0-15 ppm, sensor / transmitter with j-box, cCSAus version.....	1,670.00
65-2649XL-CH4	M2A-XL, IR Methane (CH4) LEL 0-100% sensor / transmitter, with j-box, cULus version.....	1,670.00
65-2649XL-HC	M2A-XL, IR Hydrocarbons (isobutane) LEL 0-100% sensor / transmitter with j-box, cULus version	1,670.00
65-2658XL-CH4	M2A-XL, IR Methane (CH4) vol 0-100% sensor / transmitter, with j-box, cULus version	1,670.00
65-2660XL-02	M2A-XL, IR Carbon Dioxide (CO2) 0-5,000 ppm, sensor / transmitter with j-box, cULus version	1,670.00
65-2660XL-03	M2A-XL, IR Carbon Dioxide (CO2) 0-5%, sensor / transmitter with j-box, cULus version	1,670.00
65-2660XL-05	M2A-XL, IR Carbon Dioxide (CO2) 0-50%, sensor / transmitter with j-box, cULus version	1,670.00
65-2660XL-10	M2A-XL, IR Carbon Dioxide (CO2) 0-100%, sensor / transmitter with j-box, cULus version	1,670.00

Remote Mount M2A-XL with Calibration Adaptor / Splash Guard: Class I, Division 1 Approved

Note: Tubing sold separately. Recommended tubing size for standard sensors is 3/16" x 5/16".

For IR XP sensors use 1/4" ID x 3/8" OD tubing. **Not recommended for toxic gases.**

Part#	Description	Suggested Retail
65-2640XL-04	M2A-XL, LEL 0-100% sensor (catalytic) / transmitter with j-box, (specify calibration), remote detector and calibration adaptor/splash guard, UL version	1,455.00
65-2640XL-05-04	M2A-XL, LEL 0-100% sensor (catalytic) / transmitter with j-box, (specify calibration), remote detector and calibration adaptor/splash guard, cCSAus version	1,530.00
65-2641XL-04	M2A-XL, Hydrogen (H2) specific LEL 0-100% sensor (catalytic) / transmitter with j-box, remote detector and calibration adaptor/splash guard, UL version	1,610.00
65-2643XL-05-04	M2A-XL, Oxygen (O2) 0-25%, sensor / transmitter with j-box, remote detector and calibration adaptor/splash guard, cCSAus version	1,510.00
65-2645XL-05-04	M2A-XL, Hydrogen Sulfide (H2S) 0-100 ppm, sensor / transmitter with j-box, remote detector and calibration adaptor/splash guard, cCSAus version	1,620.00
65-2649XL-CH4-4	M2A-XL, IR Methane (CH4) LEL 0-100% sensor / transmitter with j-box, remote detector and calibration adaptor/splash guard, cULus version	1,820.00
65-2649XL-HC-04	M2A-XL, IR Hydrocarbons (isobutane) LEL 0-100% sensor / transmitter with j-box, remote detector and calibration adaptor/splash guard, cULus version	1,820.00
65-2658XL-CH4-4	M2A-XL, IR Methane (CH4) vol 0-100% sensor / transmitter, with j-box, remote detector and calibration adaptor/splash guard, cULus version	1,820.00

65-2640XL-04



81-1116RK
cal cup

65-2649XL-CH4-4



81-1103RK-01
cal cup / splash guard for IR

Fixed Systems Sensors & Transmitters

Non Explosion Proof M2A-XL Assemblies with CT-7 Sensors: OK For Class I, Division 2

Part#	Description	Suggested Retail
65-2670XL-NH375	M2A-XL, Ammonia (NH3) 0 - 75 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-NH3-1	M2A-XL, Ammonia (NH3) 0 - 100 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-NH3-2	M2A-XL, Ammonia (NH3) 0 - 200 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-NH3-5	M2A-XL, Ammonia (NH3) 0 - 500 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2663XL	M2A-XL, Carbon Monoxide (CO) 0-300 ppm, CT-7 style sensor / transmitter with j-box, non explosion proof	1,420.00
65-2670XL-CL2-3	M2A-XL, Chlorine (Cl2) 0 - 3 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-CL2-5	M2A-XL, Chlorine (Cl2) 0 - 5 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-CL210	M2A-XL, Chlorine (Cl2) 0 - 10 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-CLO21	M2A-XL, Chlorine Dioxide (ClO2) 0 - 1 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-CLO23	M2A-XL, Chlorine Dioxide (ClO2) 0 - 3 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-HCN15	M2A-XL, Hydrogen Cyanide (HCN) 0 - 15 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2662XL	M2A-XL, Hydrogen Sulfide (H2S) 0-100 ppm, CT-7 style sensor / transmitter with j-box, non explosion proof	1,420.00
65-2670XL-NO2	M2A-XL, Nitrogen Dioxide (NO2) 0 - 15 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00
65-2670XL-SO210	M2A-XL, Sulfur Dioxide (SO2) 0 - 10 ppm, CT-7 style sensor / transmitter, non explosion proof with j-box	1,670.00



Non Explosion Proof M2A-XL Assemblies: OK For Class I, Division 2

Part#	Description	Suggested Retail
65-2644XL	M2A-XL, Oxygen (O2) 0-25%, sensor / transmitter with j-box, partial pressure sensor	1,270.00
65-2648XL-ASH3	M2A-XL, Arsine (AsH3) 0-1.5 ppm, transmitter, ESM-01 style sensor with j-box	1,520.00
65-2648XL-HCN	M2A-XL, Hydrogen Cyanide (HCN) 0-15 ppm, transmitter, ESM-01 style sensor with j-box	1,520.00
65-2648XL-NH3	M2A-XL, Ammonia (NH3) 0-75 ppm, transmitter, ESM-01 style sensor with j-box	1,520.00
65-2648XL-PH3	M2A-XL, Phosphine (PH3) 0-1 ppm, transmitter, ESM-01 style sensor with j-box	1,520.00
65-2648XL-SO2	M2A-XL, Sulfur Dioxide (SO2) 0-6 ppm, transmitter, ESM-01 style sensor with j-box	1,520.00
65-2661XL-02	M2A-XL, IR Carbon Dioxide (CO2) 0-5,000 ppm, sensor / transmitter, non explosion proof with j-box	1,570.00
65-2661XL-03	M2A-XL, IR Carbon Dioxide (CO2) 0-5%, sensor / transmitter, non explosion proof with j-box	1,570.00
65-2661XL-05	M2A-XL, IR Carbon Dioxide (CO2) 0-50%, sensor / transmitter, non explosion proof with j-box	1,570.00
65-2661XL-10	M2A-XL, IR Carbon Dioxide (CO2) 0-100%, sensor / transmitter, non explosion proof with j-box	1,570.00
65-2666XL	M2A-XL, Oxygen (O2) 0 - 25% sensor (capillary type) / transmitter with j-box (non explosion proof) ...	1,310.00



Fixed Systems Sensors & Transmitters

Calibration Kits

Instrument #	Cal-Kit Part #	Cal-Kit Description	Price
Ammonia	81-F504RK	Cal kit, fixed, 58AL cyl Ammonia 50 ppm in N2, reg with gauge & knob, cal cup for CT7 sensor, screwdriver, case & tubing	580.00
	81-F504RK25-LV	Cal kit, fixed, 34AL cyl Ammonia 25 ppm in N2, reg with gauge & knob, cal cup for CT7 sensor, screwdriver, case & tubing	615.00
	81-F504RK25	Cal kit, fixed, 58AL cyl Ammonia 25 ppm in N2, reg with gauge & knob, cal cup for CT7 sensor, screwdriver, case & tubing	580.00
Chlorine	81-F605	Cal kit, fixed, 58AL cyl 2 ppm Chlorine in N2, reg with gauge & knob, cal cup, screwdriver, case & tubing	620.00
	81-F605-LV	Cal kit, fixed, 34AL cyl 2 ppm Chlorine in N2, reg with gauge & knob, cal cup, screwdriver, case & tubing	555.00
Hydrogen Cyanide	81-F822RK	Cal kit, fixed, 58AL cyl 10 ppm Hydrogen Cyanide in N2, reg with gauge & knob, cal cup for CT 7 sensor, screwdriver, case & tubing	580.00

Replacement Sensors For Explosion Proof M2A-XL Series

Part#	Description	Suggested Retail
ES-1531-CO	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, plug-in type, CT-7 style, cCSAus version	195.00
ES-1537-H2S	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, plug-in type, CT-7 style, cCSAus version	195.00
NC-6205-01	Sensor, LEL Hydrogen (H2) specific, 1/2 NPT, with guard and silicone resistance, UL version, (no transmitter, no j-box)	400.00
NC-6205-05	Sensor, LEL Hydrogen (H2) specific, explosion proof direct connection, with silicone resistance, cCSAus version, (no transmitter, no j-box)	450.00
61-0140RK	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), UL version	280.00
61-0140RK-05	Sensor, LEL combustible (catalytic), direct connection (no transmitter, no j-box), cCSAus version	320.00
61-0140RKA	Sensor, PPM and low LEL combustible (catalytic), direct connection (no transmitter, no j-box)	330.00
61-0140RKA-05	Sensor, PPM and low LEL combustible (catalytic), direct connection (no transmitter, no j-box), cCSAus version	380.00
61-0190RK-CH4	Sensor, Methane (CH4) 0 - 100% LEL, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-0190RK-HC	Sensor, Hydrocarbon (HC) 0 - 100% LEL, IR, isobutane standard calibration, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-0191RK-02	Sensor, Carbon Dioxide (CO2) 0 - 5,000 ppm, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-03	Sensor, Carbon Dioxide (CO2) 0 - 5%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-05	Sensor, Carbon Dioxide (CO2) 0 - 50%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0191RK-10	Sensor, Carbon Dioxide (CO2) 0 - 100%, IR, explosion proof direct connection (no transmitter, no j-box), cULus version	740.00
61-0192RK-CH4	Sensor, Methane (CH4) 0 - 100% volume, IR, explosion proof direct connection, 3/4" NPT nipple (no transmitter, no j-box), cULus version	740.00
61-5039RK-CH4	Sensor, Methane (CH4) 0-100% LEL, IR, plug-in style	400.00
61-5039RK-HC	Sensor, Hydrocarbon (HC) 0-100% LEL, IR, plug-in style	400.00
65-1025RK	Sensor, Oxygen (O2) 0 - 25%, capillary type, plug-in replacement for O2 assembly (65-2514RK & 65-2497RK)	140.00



Fixed Systems Sensors & Transmitters

Replacement Sensors For Non Explosion Proof M2A-XL Series

Part#	Description	Suggested Retail
65-1025RK	Sensor, Oxygen (O2) 0 - 25%, capillary type, plug-in replacement for O2 assembly (65-2514RK & 65-2497RK)	140.00
65-2510RK	Sensor, Oxygen (O2) 0 -25%, non explosion proof direct connect, partial pressure type (no transmitter, no j-box)	270.00
ES-1537-H2S	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, plug-in type, CT-7 style, cCSAus version	195.00
ES-1531-CO	Sensor, Carbon Monoxide (CO) 0 - 300 ppm, plug-in type, CT-7 style, cCSAus version	195.00
61-5040RK-02	Sensor, IR Carbon Dioxide (CO2) 0-5,000 ppm, plug-in type, non-explosion proof	400.00
61-5040RK-03	Sensor, IR Carbon Dioxide (CO2) 0-5%, plug-in type, non-explosion proof.....	400.00
61-5040RK-05	Sensor, IR Carbon Dioxide (CO2) 0-50%, plug-in type, non-explosion proof	400.00
61-5040RK-10	Sensor, IR Carbon Dioxide (CO2) 0-100%, plug-in type, non-explosion proof.....	400.00



Replacement CT-7 Toxic Sensors for M2A-XL Series

Part#	Description	Suggested Retail
65-2054-01	Sensor, Ammonia (NH3) 0-75 ppm, -100 ppm, -200ppm, Sensoric CT-7 style with added membrane	450.00
65-2053-01	Sensor, Ammonia (NH3) 0-500 ppm, Sensoric CT-7 style with added membrane	450.00
65-2051-01	Sensor, Chlorine (Cl2), 0 - 5 ppm / 0 - 10 ppm, CT-7 style with added membrane	450.00
65-2052-01	Sensor, Chlorine Dioxide (ClO2), 0 - 1 ppm / 0 - 3 ppm / 0 - 5 ppm, CT-7 style with added membrane.....	450.00
65-2049-01	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, CT-7 style, explosion proof and non explosion proof	450.00
65-2058-01	Sensor, Nitrogen Dioxide (NO2), 0 - 15 ppm, CT-7 style with added membrane	450.00
65-2024-01	Sensor, Sulfur Dioxide (SO2), 0 - 10 ppm, CT-7 style with added membrane	340.00

Replacement ESM-01 Toxic Sensors For Non Explosion Proof M2A-XL Series

Part#	Description	Suggested Retail
ESM-01R-D-NH3	Sensor, Ammonia (NH3), 0 - 75 ppm, ESM-01 plug-in type, for diffusion instruments	195.00
ESM-01DH-ASH3	Sensor, Arsine (AsH3), 0 - 1.50 ppm, ESM-01 plug-in type	195.00
ESM-01DH-D-HCN	Sensor, Hydrogen Cyanide (HCN), 0 - 15 ppm, ESM-01 plug-in type	195.00
ESM-01DH-PH3	Sensor, Phosphine (PH3), 0 - 1.0 ppm, ESM-01 plug-in type	195.00
ESM-01DH-D-SO2	Sensor, Sulfur Dioxide (SO2), 0 - 6 ppm, ESM-01 plug-in type	195.00
ESM-K01-D-CL2	Sensor, Chlorine (Cl2), 0 - 3 ppm, ESM-01 plug-in diffusion type.....	195.00



Fixed Systems Sensors & Transmitters

M2A-XL Replacement Parts & Accessories

Part#	Description	Suggested Retail
47-5048RK	Display ribbon cable, M2A/M2A-XL transmitter	10.00
49-4000RK	AC Power supply assembly for M2A/M2A-XL, input 100 VAC to 240 VAC, output 24 VDC, 0.5 amp, mounted in 18-0400RK	220.00
49-4000RK-SS	AC Power supply assembly for M2A/M2A-XL stainless steel housing, input 100 VAC to 240 VAC, output 24 VDC, 0.5 amp, mounted in 18-0416RK-11	320.00
57-0075RK	Display assembly, LCD for M2 smart transmitter/Beacon 110	90.00
57-0150XL-01	Display assembly, OLED for M2A-XL	90.00
82-0101RK	Magnetic wand, for M2A-XL/T2A/T3A/VOC Pro/Air Alert/AirLink Transmitters	20.00

M2A-XL Replacement Transmitters for Use with OLED Display

Part#	Description	Suggested Retail
57-1287-01	Terminal/relay board, potted, O2, M2A-XL Transmitter, standard for OLED display	440.00
57-1287-02	Terminal/relay board, potted, CO, M2A-XL Transmitter, standard for OLED display	440.00
57-1287-03	Terminal/relay board, potted, H2S, M2A-XL Transmitter, standard for OLED display	440.00
57-1287-04	Terminal/relay board, potted, ASH3, M2A-XL Transmitter, standard for OLED display	440.00
57-1287-06	Terminal/relay board, potted, NH3, M2A-XL Transmitter, standard for OLED display	440.00
57-1287-08	Terminal/relay board, potted, PH3, M2A-XL Transmitter, standard for OLED display	440.00
57-1287-09	Terminal/relay board, potted, SO2, M2A-XL Transmitter, standard for OLED display	440.00
57-1287-11	Terminal/relay board, potted, HCN, M2A-XL Transmitter, standard for OLED display	440.00
57-1288-01	Terminal/relay board, potted, LEL, M2A-XL Transmitter, specify calibration gas, standard for OLED display	440.00
57-1288-02	Terminal/relay board, potted, LEL,H2 specific, M2A-XL Transmitter, standard for OLED display	440.00
57-1288-05	Terminal/relay board, potted, LEL,IR HC sensor, M2A-XL Transmitter, standard for OLED display	440.00
57-1288-06	Terminal/relay board, potted, IR CO2 sensor, 0 - 5,000 ppm, M2A-XL Transmitter, standard for OLED display	440.00
57-1288-07	Terminal/relay board, potted, IR CO2 sensor, 0 - 5%, M2A-XL Transmitter, standard for OLED display	440.00
57-1288-08	Terminal/relay board, potted, IR CO2 sensor, 0 - 50%, M2A-XL Transmitter, standard for OLED display ...	440.00
57-1288-09	Terminal/relay board, potted, IR CO2 sensor, 0 - 100%, M2A-XL Transmitter, standard for OLED display ...	440.00
57-1288-11	Terminal/relay board, potted, IR CH4 sensor, 0 - 100% volume, M2A-XL Transmitter, standard for OLED display	440.00

Fixed Systems Sensors & Transmitters

MPS™ LEL Variable Combustible Gas Sensor (Molecular Property Spectrometer)

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
61-0230	LEL, MPStm type sensor, 3/4 inch NPT	700.00
61-1020	LEL, Direct Connect, MPStm type detector with XP J-Box	820.00
65-2380	LEL, S2, MPStm type sensor/transmitter/XP J-Box	1,050.00
65-2650XL	LEL, M2A-XL, MPStm type sensor/transmitter with J-Box	1,670.00
81-FMPS-CH4	Cal kit, fixed, MPStm sensor, CH4 50% LEL in 18% O2 with a balance of N2, 103 liter steel, regulator, screwdriver, case & tubing.....	365.00





2-WIRE EXPLOSION PROOF TRANSMITTER

Gas Detection For Life

T2A



Features

- Electrochemical Sensor
- Loop-Powered (2-Wired), 4-20 mA output
- 3 Character, 7 segment display screen with backlight
- 3 Push-button interface (ADD, MENU, SUB) with corresponding magnetic, non-intrusive switches
- Operating temperature range -40°C to +55°C
- Aluminum device enclosure
- 303 Stainless-steel sensor housing
- 1-Year warranty

Industry Applications

- Petrochemical plants
- Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Manufacturing facilities
- Automotive
- Semiconductor plants
- Chemical plants

The T2A Series toxic gas detector is a versatile assembly that uses an electrochemical sensor to detect a variety of gases. 2-Wire loop-powered to withstand extreme climatic conditions and harsh environments. Magnetic switches allow for non-intrusive calibration while in the field.

Gas Type	Range	T ₉₀	Hazard Classification
CL2	0 - 10 ppm	< 60 sec.	Class 1, Div 2
CLO2	0 - 1 ppm	< 120 sec.	Class 1, Div 2
CO	0 - 300 ppm	< 30 sec.	Class 1, Div 1
H2S	0 - 100 ppm	< 30 sec.	Class 1, Div 1
H2S 2K	0 - 2000 ppm	< 25 sec.	Class 1, Div 1
HCL	0 - 30 ppm	< 300 sec.	Class 1, Div 2
HCN	0 - 30 ppm	< 70 sec.	Class 1, Div 2
HF	0 - 10 ppm	< 90 sec.	Class 1, Div 2
NH3	0 - 100 ppm	< 90 sec.	Class 1, Div 2
NH3 300	0 - 300 ppm	< 120 sec.	Class 1, Div 2
NH3	0 - 1000 ppm	< 120 sec.	Class 1, Div 2
NO2	0 - 20 ppm	< 25 sec.	Class 1, Div 2
O2	0 - 25 Vol.	< 15 sec.	Class 1, Div 1
PH3	0 - 5 ppm	< 30 sec.	Class 1, Div 2
SO2	0 - 20 ppm	< 35 sec.	Class 1, Div 2

Product Specifications		
Sensor Type		Electrochemical
Operating Voltage		12V to 35 VDC
Power Type		Loop-powered (2-Wire)
Current Draw		35 mA maximum
Display Screen		3 Character, 7 segment display screen with backlight
Interface		3 Push-buttons (MENU, ADD and SUB) 3 Magnetic non-intrusive switches for calibration
Temperature Range		-40°C to +55°C (-40°F to +131°F)
Wired (Analog) Output		4-20 mA (2-Wire)
Enclosure Materials		Aluminum device enclosure 303 stainless-steel sensor housing
Product Mounting		Wall mount (included)
Approvals		QPS Component Certified Explosion-proof
Product Dimensions		5.42 in. L x 6.03 in. W x 7.03 in. H (8 in. W x 17 in. Max. dimensions with attachments)
Total Weight		5.75 lbs.
Hazardous Location Approvals	Main Enclosure	Certified explosion / flame proof $CQPS_{US}$ Class I, Division 1 & 2, Groups B, C & D Nema 3, 4, 4X, 7 (B, C, D) 9 (E, F, G) Temp.= -20°C to +60°C
	Sensor Housing	Certified explosion / flame proof $CQPS_{US}$ Class I, Division 1 & 2, Groups B, C & D Temp.= -40°C to +60°C Note: Certification only applies to some gases. Toxic gases not certified for Div. 1 locations are suitable for Div. 2 applications but have no third party approval.
Controllers		Compatible with all RKI Beacon controllers, as well as most DCS / PLC systems: Beacon 110, Beacon 200, Beacon 410A and Beacon 800
Sensor Element Warranty		1-Year warranty for electronics and sensor

Specifications subject to change without notice.

Made in the USA



Toll Free: (800) 754-5165 • Phone: (510) 441-5656
Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Sensors & Transmitters

T2A Series 2-Wire Transmitter

- Explosion Proof, Class I, Division 1 for CO, H2S, O2, HCN, PH3, and SO2
- Class I, Division 2 for all other gases
- Loop Powered
- 4-20 mA output

Part#	Description	Suggested Retail
66-6206-07	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-75 ppm	1,840.00
66-6206-10	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-100 ppm	1,840.00
66-6206-10L	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-100 ppm, long life, low humidity	2,020.00
66-6206-20	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-200 ppm	1,840.00
66-6206-30	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-300 ppm	1,840.00
66-6206-40	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-400 ppm	1,840.00
66-6206-50	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-500 ppm	1,840.00
66-6206-1K	T2A sensor/transmitter with j-box, Ammonia (NH3), 0-1000 ppm	1,840.00
66-6268-01	T2A sensor/transmitter with j-box, Arsine (AsH3), 0-1.0 ppm	2,330.00
66-6201-03	T2A sensor/transmitter with j-box, Carbon Monoxide (CO), 0-300 ppm	1,660.00
66-6201-05	T2A sensor/transmitter with j-box, Carbon Monoxide (CO), 0-500 ppm	1,660.00
66-6201-1K	T2A sensor/transmitter with j-box, Carbon Monoxide (CO), 0-1000 ppm	1,660.00
66-6212-03	T2A sensor/transmitter with j-box, Chlorine (Cl2), 0-3 ppm	1,840.00
66-6212-10	T2A sensor/transmitter with j-box, Chlorine (Cl2), 0-10 ppm	1,840.00
66-6212-20	T2A sensor/transmitter with j-box, Chlorine (Cl2), 0-20 ppm	1,840.00
66-6213-01	T2A sensor/transmitter with j-box, Chlorine Dioxide (ClO2), 0-1 ppm	1,840.00
66-6213-05	T2A sensor/transmitter with j-box, Chlorine Dioxide (ClO2), 0-5 ppm	1,840.00
66-6216-10	T2A sensor/transmitter with j-box, Ethylene Oxide (ETO), 0-10 ppm	2,330.00
66-6211-10	T2A sensor/transmitter with j-box, Formaldehyde (HCHO), 0-10 ppm	2,330.00
66-6239-40	T2A sensor/transmitter with j-box, Hydrogen (H2), 0-100% LEL (0-4% vol), EC sensor type	2,330.00
66-6204-20	T2A sensor/transmitter with j-box, Hydrogen Chloride (HCl), 0-20 ppm	2,330.00
66-6204-30	T2A sensor/transmitter with j-box, Hydrogen Chloride (HCl), 0-30 ppm	2,330.00
66-6204-99	T2A sensor/transmitter with j-box, Hydrogen Chloride (HCl), 0-100 ppm	2,330.00
66-6205-15	T2A sensor/transmitter with j-box, Hydrogen Cyanide (HCN), 0-15 ppm	1,840.00
66-6205-30	T2A sensor/transmitter with j-box, Hydrogen Cyanide (HCN), 0-30 ppm	1,840.00
66-6205-50	T2A sensor/transmitter with j-box, Hydrogen Cyanide (HCN), 0-50 ppm	1,840.00
66-6214-10	T2A sensor/transmitter with j-box, Hydrogen Fluoride (HF), 0-10 ppm	2,330.00
66-6203-01	T2A sensor/transmitter with j-box, Hydrogen Sulfide (H2S), 0-10 ppm	1,660.00
66-6203-02	T2A sensor/transmitter with j-box, Hydrogen Sulfide (H2S), 0-25 ppm	1,660.00
66-6203-05	T2A sensor/transmitter with j-box, Hydrogen Sulfide (H2S), 0-50 ppm	1,660.00
66-6203-10	T2A sensor/transmitter with j-box, Hydrogen Sulfide (H2S), 0-100 ppm	1,660.00
66-6203-50	T2A sensor/transmitter with j-box, Hydrogen Sulfide (H2S), 0-500 ppm	1,840.00
66-6203-2K	T2A sensor/transmitter with j-box, Hydrogen Sulfide (H2S), 0-2000 ppm	1,840.00
66-6207-25	T2A sensor/transmitter with j-box, Nitric Oxide (NO), 0-250 ppm	1,840.00
66-6208-20	T2A sensor/transmitter with j-box, Nitrogen Dioxide (NO2), 0-20 ppm	1,840.00
66-6202-25	T2A sensor/transmitter with j-box, Oxygen (O2), 0-25%	1,660.00
66-6209-05	T2A sensor/transmitter with j-box, Ozone (O3), 0-5 ppm	1,840.00
66-6209-99	T2A sensor/transmitter with j-box, Ozone (O3), 0-100 ppm	1,840.00
66-6215-05	T2A sensor/transmitter with j-box, Phosphine (PH3), 0-5 ppm	2,460.00
66-6210-20	T2A sensor/transmitter with j-box, Sulfur Dioxide (SO2), 0-20 ppm	1,840.00



Fixed Systems Sensors & Transmitters

T2A Calibration Kits

Instrument #	Cal-Kit Part #	Cal-Kit Description	Price
Chlorine	81-T1203-LV	Cal kit, T2A/T3A, 34AL cyl Cl2 2 ppm in N2, regulator, case, XP cal cup, and tubing	605.00
	81-T1220-LV	Cal kit, T2A/T3A, 34AL cyl Cl2 5 ppm in N2, regulator, case, XP cal cup, and tubing	625.00
HydrogenChloride	81-T0430-LV	Cal kit, T2A/T3A, 34AL cyl HCl 5 ppm in N2, regulator, case, XP cal cup, and tubing	685.00
HydrogenFluoride	81-T1410-LV	Cal kit, T2A/T3A for HF, 34AL cyl Cl2 2 ppm in N2, regulator, case, XP cal cup, and tubing	625.00
HydrogenSulfide	81-T0310-LV	Cal kit, T2A/T3A, 34AL cyl H2S 25 ppm in N2, regulator, case, XP cal cup, and tubing	535.00
Isobutane LEL	81-T6310-LV	Cal kit, T2A/T3A, 34L cyl isobutane in air, regulator, case, XP cal cup, and tubing	460.00
Methane LEL	81-T4010	Cal kit, T3A, 103L cyl Methane 50% LEL in air, regulator, case, XP cal cup, and tubing	495.00
	81-T4010-LV	Cal kit, T3A, 34L cyl Methane 50% LEL in air, regulator, case, XP cal cup, and tubing	460.00
NitricOxide	81-T0725-LV	Cal kit, T2A/T3A, 34AL cyl NO 25 ppm in N2, regulator, case, XP cal cup, and tubing	665.00
Phosphine	81-T1505-LV	Cal kit, T2A/T3A, 34AL cyl PH3 0.5 ppm in N2, regulator, case, XP cal cup, and tubing	665.00
Propane LEL	81-T5310	Cal kit, T3A, 103L cyl Propane 50% LEL in air, regulator, case, XP cal cup, and tubing	495.00
	81-T5310-LV	Cal kit, T3A, 34L cyl Propane 50% LEL in air, regulator, case, XP cal cup, and tubing	440.00

Replacement Parts and Accessories for T2A

Part#	Description	Suggested Retail
30-0960	Sample drawing adapter for T2A/T3A/VOC Pro/AirLink products with aspirator and brass fittings	550.00
30-0960-01	Flow through adapter for T2A/T3A/VOC Pro/AirLink products with brass fittings only	180.00
30-0960-02	Flow through adapter for T2A/T3A/VOC Pro/AirLink products with flow meter and brass fittings	320.00
30-0960-03	Flow through adapter for T2A/T3A/VOC Pro/AirLink products with flow meter, valve, and brass fittings...	360.00
47-5110-7-XX	Cable with 7-pin connector to remote mount sensor (battery powered) for explosion proof and non-explosion proof, price per foot (specify length in place of -XX)	7.90
61-2003	Remote sensor mounting kit, explosion proof with 7-pin connector for T2A/AirLink 6900/AirLink 6940XP (order cable separate)	450.00
81-1183	Cal cup with 3 ft 1/8" ID x 1/4" OD teflon tubing for T2A/T3A/VOC Pro/AirLink 6900 type detectors	175.00
81-1184	Rain guard for T2A/T3A/VOC Pro type explosion proof detector.....	20.00
82-0101RK	Magnetic wand, for M2A-XL/T2A/T3A/VOC Pro/Air Alert/AirLink Transmitters	20.00
Z2000-CAP-ASSY	Sensor housing cap with flame arrestor and O-ring, for T3A/VOC Pro/6900/6940XP Airlink products and T2A/T3A	210.00

Fixed Systems Sensors & Transmitters

T2A Replacement Sensors

Part#	Description	Suggested Retail
66-0006-2	Sensor, Ammonia (NH3) high range, covers full scale from 200 to 1000 ppm, Semeatech, EC type	400.00
66-0006L-1	Sensor, Ammonia (NH3) long life, low humidity for up to 100 ppm full scale, Semeatech, EC type	400.00
66-0006N-1	Sensor, Ammonia (NH3) for up to 100 ppm full scale, Nemoto, EC type	400.00
66-0006N-2	Sensor, Ammonia (NH3) covers full scale between 200 and 1000 ppm, Nemoto, EC type	400.00
66-0068	Sensor, Arsine (AsH3) 0 - 1 ppm, EC type	900.00
66-0001	Sensor, Carbon Monoxide (CO) covers full scale up to 0 - 1000 ppm, EC type	220.00
66-0012	Sensor, Chlorine (Cl2) covers full scale up to 20 ppm, EC type	400.00
66-0013	Sensor, Chlorine Dioxide (ClO2) covers full scale up to 5 ppm, EC type	400.00
66-0016	Sensor, Ethylene Oxide (ETO) 0 - 10 ppm, EC type	900.00
66-0011	Sensor, Formaldehyde (HCHO) 0 - 10 ppm, EC type	900.00
66-0039	Sensor, Hydrogen (H2) 0 - 100% LEL (0-4% vol), EC type	900.00
66-0004-1	Sensor, Hydrogen Chloride (HCl) covers full scale up to 20 ppm, EC type	900.00
66-0004-2	Sensor, Hydrogen Chloride (HCl) covers full scale up to 200 ppm, EC type	900.00
66-0005	Sensor, Hydrogen Cyanide (HCN) 0 - 50 ppm, EC type	400.00
66-0014	Sensor, Hydrogen Fluoride (HF) 0 - 10 ppm, EC type	900.00
66-0003-1	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, EC type	220.00
66-0003-2	Sensor, Hydrogen Sulfide (H2S) covers full scale from 200 ppm to 2000 ppm, EC type	400.00
66-0007	Sensor, Nitric Oxide (NO) covers full scale up to 250 ppm, EC type	400.00
66-0008	Sensor, Nitrogen Dioxide (NO2) 0 - 20 ppm, EC type	400.00
66-0002	Sensor, Oxygen (O2) 0 - 25 % volume	220.00
66-0009-1	Sensor, Ozone (O3) 0 - 5 ppm, EC type	900.00
66-0009-2	Sensor, Ozone (O3) high range sensor covers full scale from 10 ppm to 100 ppm, EC type	900.00
66-0015	Sensor, Phosphine (PH3) 0 - 5 ppm, EC type	1,025.00
66-0010	Sensor, Sulfur Dioxide (SO2) 0 - 20 ppm, EC type	400.00





3-WIRE EXPLOSION PROOF TRANSMITTER

Gas Detection For Life

T3A



Features

- Electrochemical, Infrared or catalytic bead sensors
- Wire powered (3-Wire), 12 to 35 VDC operating voltage
- Operating temperature range -40°C to +54°C
- Graphical LCD with LED backlight
- 3 Push-button interface (ADD, MENU, SUB) with 3 corresponding magnetic, non-intrusive switches
- 2 Individually configurable alarms
- 2 Front panel LED indicators (amber and red)
- 2 Optional fully programmable alarm relays (dry contacts)
- Output options: 4-20mA (3-wire) analog, RS-485 Modbus, both standard

Industry Applications

- Petrochemical plants, Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Manufacturing facilities
- Chemical plants

The T3A Series Gas Detector ambient air hazardous gas detector is a versatile assembly that uses an electrochemical, infrared, catalytic bead sensor element to detect a variety of gases. Wired power (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs standard. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

Gas Type	Range	T ₉₀	Hazard Classification
LEL Catalytic	0 - 100% (0-5% Vol.)	< 90 sec.	Class 1, Div 1
CL2	0 - 10 ppm	< 60 sec.	Class 1, Div 2
CLO2	0 - 1 ppm	< 120 sec.	Class 1, Div 2
CO	0 - 300 ppm	< 30 sec.	Class 1, Div 1
CO2	0 - 5% vol.	< 30 sec.	Class 1, Div 1
H2S	0 - 100 ppm	< 30 sec.	Class 1, Div 1
H2S 2K	0 - 2000 ppm	< 25 sec.	Class 1, Div 1
HCL	0 - 30 ppm	< 300 sec.	Class 1, Div 2
HCN	0 - 30 ppm	< 70 sec.	Class 1, Div 2
HF	0 - 10 ppm	< 90 sec.	Class 1, Div 2
LEL-IR	0 - 100% (0-5% Vol.)	< 30 sec.	Class 1, Div 1
LEL-IR-HC	0 - 100% LEL	< 30 sec.	Class 1, Div 1
NH3	0 - 100 ppm	< 90 sec.	Class 1, Div 2
NH3 300	0 - 300 ppm	< 120 sec.	Class 1, Div 2
NH3 A	0 - 1000 ppm	< 120 sec.	Class 1, Div 2
NO2	0 - 20 ppm	< 25 sec.	Class 1, Div 2
O2	0 - 25 Vol.	< 15 sec.	Class 1, Div 1
PH3	0 - 5 ppm	< 30 sec.	Class 1, Div 2
SO2	0 - 20 ppm	< 35 sec.	Class 1, Div 2

RKI Instruments, Inc. • 33248 Central Ave. Union City, CA 94587 • Phone (800) 754-5165 • (510) 441-5656 • Fax (510) 441-5650

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

Product Specifications		
Sensor Type		Electrochemical, infrared, catalytic bead
Operating Voltage		Wired power (3-Wire) 12 to 35 VDC
Power Draw		2 Watts maximum
Protection		Power electromagnetic interference (EMI) filter 4-20 mA surge suppression RS-485 surge suppression
Display Screen		102x64 Resolution graphical LCD screen transfective (sunlight readable) with white LED backlight
Interface		3 Push-buttons (MENU, ADD and SUB) 3 Magnetic non-intrusive switches for calibration
Customizable Settings		2 Individual-configurable alarm LED/relay set-points
Temperature Range		-40°C to +54°C (-40°F to +130°F)
Output (digital)		RS-485 modbus
Wired (Analog) Output		4-20 mA (3-Wire) Fault terminal Optional 2 dry-contact relays with replaceable 4 amp fuses
Product Dimensions		5.5 in. L x 6 in. W x 7 in. H (8 in. W x 17 in. H Max. dimensions with attachments)
Total Weight		6 lbs.
Remote Sensor Kit (Optional Additional Feature)		Remote sensor kit with enclosure (5 pin) • Electrochemical sensor max. length: 250 feet • Infrared sensor max. length: 40 feet • Catalytic bead sensor max. length: 15 feet
Hazardous Location Approvals	Main Enclosure	Certified explosion / flame proof $CQPS_{US}$ Class I, Division 1 & 2, Groups B, C & D Nema 3, 4, 4X, 7 (B, C, D) 9 (E, F, G) Temp.= -20°C to +60°C
	Sensor Housing	Certified explosion / flame proof $CQPS_{US}$ Class I, Division 1 & 2, Groups B, C & D Temp.= -40°C to +60°C Note: Certification only applies to some gases. Toxic gases not certified for Div. 1 locations are suitable for Div. 2 applications but have no third party approval.
Controllers		Controllers compatible with all RKI Beacon controllers, as well as most DCS / PLC systems: Beacon 110, Beacon 200, Beacon 410A, Beacon 800, and MC-6400
Warranty		1-Year warranty for electronics and sensor

Specifications subject to change without notice.

Made in the USA



Toll Free: (800) 754-5165 • Phone: (510) 441-5656
Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Sensors & Transmitters

T3A Series 3-Wire Transmitter without Relays

- Explosion Proof, Class I, Division 1 for CO, H₂S, O₂, LEL, CO₂, VOC, HCN, PH₃, and SO₂
- Class I, Division 2 for all other gases
- 4-20 mA or Modbus output



Part#	Description	Suggested Retail
66-6306-10	T3A sensor/transmitter with j-box, Ammonia (NH ₃), 0-100 ppm	1,670.00
66-6306-20	T3A sensor/transmitter with j-box, Ammonia (NH ₃), 0-200 ppm	1,670.00
66-6306-30	T3A sensor/transmitter with j-box, Ammonia (NH ₃), 0-300 ppm	1,670.00
66-6306-50	T3A sensor/transmitter with j-box, Ammonia (NH ₃), 0-500 ppm	1,670.00
66-6306-1K	T3A sensor/transmitter with j-box, Ammonia (NH ₃), 0-1000 ppm	1,670.00
66-6368-01	T3A sensor/transmitter with j-box, Arsine (AsH ₃), 0-1 ppm	2,150.00
66-6354-05	T3A sensor/transmitter with j-box, Carbon Dioxide (CO ₂) IR, 0-5000 ppm	2,150.00
66-6350-05	T3A sensor/transmitter with j-box, Carbon Dioxide (CO ₂) IR, 0-5% vol	2,150.00
66-6301-05	T3A sensor/transmitter with j-box, Carbon Monoxide (CO), 0-500 ppm	1,500.00
66-6301-1K	T3A sensor/transmitter with j-box, Carbon Monoxide (CO), 0-1,000 ppm	1,500.00
66-6312-10	T3A sensor/transmitter with j-box, Chlorine (Cl ₂), 0-10 ppm	1,670.00
66-6313-01	T3A sensor/transmitter with j-box, Chlorine Dioxide (ClO ₂), 0-1 ppm	1,670.00
66-6313-05	T3A sensor/transmitter with j-box, Chlorine Dioxide (ClO ₂), 0-5 ppm	1,670.00
66-6316-10	T3A sensor/transmitter with j-box, Ethylene Oxide (ETO), 0-10 ppm	2,150.00
66-6311-10	T3A sensor/transmitter with j-box, Formaldehyde (HCHO), 0-10 ppm	2,150.00
66-6340-10	T3A sensor/transmitter with j-box, Hydrocarbon (CH ₄), 0-100% LEL catalytic	1,500.00
66-6351-10	T3A sensor/transmitter with j-box, Hydrocarbon (CH ₄) 0-100% LEL, IR	2,150.00
66-6352-99	T3A sensor/transmitter with j-box, Hydrocarbon (CH ₄) 0-100% vol, IR	2,150.00
66-6353-10	T3A sensor/transmitter with j-box, Hydrocarbon (HC) 0-100% LEL, IR	2,150.00
66-6339-40	T3A sensor/transmitter with j-box, Hydrogen (H ₂), 0-100% LEL (0-4% vol), EC	2,150.00
66-6304-20	T3A sensor/transmitter with j-box, Hydrogen Chloride (HCl), 0-20 ppm.....	2,150.00
66-6304-30	T3A sensor/transmitter with j-box, Hydrogen Chloride (HCl), 0-30 ppm.....	2,150.00
66-6304-99	T3A sensor/transmitter with j-box, Hydrogen Chloride (HCl), 0-100 ppm	2,150.00
66-6305-50	T3A sensor/transmitter with j-box, Hydrogen Cyanide (HCN), 0-50 ppm	1,670.00
66-6314-10	T3A sensor/transmitter with j-box, Hydrogen Fluoride (HF), 0-10 ppm	2,150.00
66-6303-01	T3A sensor/transmitter with j-box, Hydrogen Sulfide (H ₂ S), 0-10 ppm	1,500.00
66-6303-02	T3A sensor/transmitter with j-box, Hydrogen Sulfide (H ₂ S), 0-25 ppm	1,500.00
66-6303-05	T3A sensor/transmitter with j-box, Hydrogen Sulfide (H ₂ S), 0-50 ppm	1,500.00
66-6303-10	T3A sensor/transmitter with j-box, Hydrogen Sulfide (H ₂ S), 0-100 ppm.....	1,500.00
66-6303-50	T3A sensor/transmitter with j-box, Hydrogen Sulfide (H ₂ S), 0-500 ppm.....	1,670.00
66-6303-2K	T3A sensor/transmitter with j-box, Hydrogen Sulfide (H ₂ S), 0-2000 ppm	1,670.00
66-6307-25	T3A sensor/transmitter with j-box, Nitric Oxide (NO), 0-250 ppm	1,670.00
66-6308-20	T3A sensor/transmitter with j-box, Nitrogen Dioxide (NO ₂), 0-20 ppm	1,670.00
66-6302-25	T3A sensor/transmitter with j-box, Oxygen (O ₂), 0-25%	1,500.00
66-6309-05	T3A sensor/transmitter with j-box, Ozone (O ₃), 0-5 ppm.....	2,150.00
66-6309-99	T3A sensor/transmitter with j-box, Ozone (O ₃), 0-100 ppm.....	2,150.00
66-6315-05	T3A sensor/transmitter with j-box, Phosphine (PH ₃), 0-5 ppm	2,310.00
66-6310-20	T3A sensor/transmitter with j-box, Sulfur Dioxide (SO ₂), 0-20 ppm	1,670.00

T3A Series 3-Wire Explosion Proof Transmitter with Relays

ORDERING INFORMATION: To order a T3A with two relays, add -R to the end of the part # and \$260 to the price.

Fixed Systems Sensors & Transmitters

T3A Calibration Kits

Instrument #	Cal-Kit Part #	Cal-Kit Description	Price
Chlorine	81-T1203-LV	Cal kit, T2A/T3A, 34AL cyl Cl2 2 ppm in N2, regulator, case, XP cal cup, and tubing	605.00
	81-T1220-LV	Cal kit, T2A/T3A, 34AL cyl Cl2 5 ppm in N2, regulator, case, XP cal cup, and tubing	625.00
HydrogenChloride	81-T0430-LV	Cal kit, T2A/T3A, 34AL cyl HCl 5 ppm in N2, regulator, case, XP cal cup, and tubing	685.00
HydrogenFluoride	81-T1410-LV	Cal kit, T2A/T3A for HF, 34AL cyl Cl2 2 ppm in N2, regulator, case, XP cal cup, and tubing	625.00
HydrogenSulfide	81-T0310-LV	Cal kit, T2A/T3A, 34AL cyl H2S 25 ppm in N2, regulator, case, XP cal cup, and tubing	535.00
Isobutane LEL	81-T6310-LV	Cal kit, T2A/T3A, 34L cyl isobutane in air, regulator, case, XP cal cup, and tubing	460.00
Methane LEL	81-T4010	Cal kit, T3A, 103L cyl Methane 50% LEL in air, regulator, case, XP cal cup, and tubing	495.00
	81-T4010-LV	Cal kit, T3A, 34L cyl Methane 50% LEL in air, regulator, case, XP cal cup, and tubing	460.00
NitricOxide	81-T0725-LV	Cal kit, T2A/T3A, 34AL cyl NO 25 ppm in N2, regulator, case, XP cal cup, and tubing	665.00
Phosphine	81-T1505-LV	Cal kit, T2A/T3A, 34AL cyl PH3 0.5 ppm in N2, regulator, case, XP cal cup, and tubing	665.00
Propane LEL	81-T5310	Cal kit, T3A, 103L cyl Propane 50% LEL in air, regulator, case, XP cal cup, and tubing	495.00
	81-T5310-LV	Cal kit, T3A, 34L cyl Propane 50% LEL in air, regulator, case, XP cal cup, and tubing	440.00

Replacement Parts and Accessories for T3A

Part#	Description	Suggested Retail
30-0960	Sample drawing adapter for T2A/T3A/VOC Pro/AirLink products with aspirator and brass fittings	550.00
30-0960-01	Flow through adapter for T2A/T3A/VOC Pro/AirLink products with brass fittings only	180.00
30-0960-02	Flow through adapter for T2A/T3A/VOC Pro/AirLink products with flow meter and brass fittings	320.00
30-0960-03	Flow through adapter for T2A/T3A/VOC Pro/AirLink products with flow meter, valve, and brass fittings...	360.00
47-5110-5-XX	Cable with 5-pin connector to remote mount sensor for explosion proof and non-explosion proof, price per foot (specify length in place of -XX)	7.90
61-2001	Remote sensor mounting kit, explosion proof with 5-pin connector for T3A/AirLink T3A/VOC Pro/AirLink VOC Pro (order cable separate)	450.00
81-1183	Cal cup with 3 ft 1/8" ID x 1/4" OD teflon tubing for T2A/T3A/VOC Pro/AirLink 6900 type detectors	175.00
81-1184	Rain guard for T2A/T3A/VOC Pro type explosion proof detector.....	20.00
82-0101RK	Magnetic wand, for M2A-XL/T2A/T3A/VOC Pro/Air Alert/AirLink Transmitters	20.00
Z2000-CAP-ASSY	Sensor housing cap with flame arrestor and O-ring, for T3A/VOC Pro/6900/6940XP Airlink products and T2A/T3A	210.00
Z6000-XRB-PCA	Radio/Relay board with relay components installed, for T3A/VOC Pro	260.00

Fixed Systems Sensors & Transmitters

T3A Replacement Sensors

Part#	Description	Suggested Retail
66-0006N-1	Sensor, Ammonia (NH3) for up to 100 ppm full scale, Nemoto, EC type	400.00
66-0006-2	Sensor, Ammonia (NH3) high range, covers full scale from 200 to 1000 ppm, Semeatech, EC type	400.00
66-0068	Sensor, Arsine (AsH3) 0 - 1 ppm, EC type	900.00
66-0054	Sensor, Carbon Dioxide (CO2) 0 - 5000 ppm, IR type	900.00
66-0050	Sensor, Carbon Dioxide (CO2) 0 - 5 % volume, IR type	900.00
66-0001	Sensor, Carbon Monoxide (CO) covers full scale up to 0 - 1000 ppm, EC type	220.00
66-0012	Sensor, Chlorine (Cl2) covers full scale up to 20 ppm, EC type	400.00
66-0013	Sensor, Chlorine Dioxide (ClO2) covers full scale up to 5 ppm, EC type	400.00
66-0040	Sensor, Hydrocarbons (CH4) 0 - 100 % LEL, catalytic type	220.00
66-0051	Sensor, Hydrocarbons (CH4) 0 - 100 % LEL, IR type	900.00
66-0053	Sensor, Hydrocarbons (HC) 0-100% LEL, IR type	900.00
66-0052	Sensor, Hydrocarbons (CH4) 0 - 100 % volume, IR type	900.00
66-0016	Sensor, Ethylene Oxide (ETO) 0 - 10 ppm, EC type	900.00
66-0011	Sensor, Formaldehyde (HCHO) 0 - 10 ppm, EC type	900.00
66-0039	Sensor, Hydrogen (H2) 0 - 100% LEL (0-4% vol), EC type	900.00
66-0004-1	Sensor, Hydrogen Chloride (HCl) covers full scale up to 20 ppm, EC type	900.00
66-0004-2	Sensor, Hydrogen Chloride (HCl) covers full scale up to 200 ppm, EC type	900.00
66-0005	Sensor, Hydrogen Cyanide (HCN) 0 - 50 ppm, EC type	400.00
66-0014	Sensor, Hydrogen Fluoride (HF) 0 - 10 ppm, EC type	900.00
66-0003-1	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, EC type	220.00
66-0003-2	Sensor, Hydrogen Sulfide (H2S) covers full scale from 200 ppm to 2000 ppm, EC type	400.00
66-0007	Sensor, Nitric Oxide (NO) covers full scale up to 250 ppm, EC type	400.00
66-0008	Sensor, Nitrogen Dioxide (NO2) 0 - 20 ppm, EC type	400.00
66-0002	Sensor, Oxygen (O2) 0 - 25 % volume	220.00
66-0009-1	Sensor, Ozone (O3) 0 - 5 ppm, EC type	900.00
66-0009-2	Sensor, Ozone (O3) high range sensor covers full scale from 10 ppm to 100 ppm, EC type	900.00
66-0015	Sensor, Phosphine (PH3) 0 - 5 ppm, EC type	1,025.00
66-0010	Sensor, Sulfur Dioxide (SO2) 0 - 20 ppm, EC type	400.00





3-WIRE EXPLOSION PROOF TRANSMITTER

Gas Detection For Life

VOC Pro



Features

- **PID sensor options**
—10.0 eV lamp / 11.7 eV / 10.6 eV ppb / 10.6 eV ppm
- **Wired power (3-Wire), 12 to 35 VDC operating voltage**
- **Operating temperature range -40°C to +54°C**
- **Graphical LCD with LED backlight**
- **3 Push-button interface (ADD, MENU, SUB) with corresponding magnetic, non-intrusive switches**
- **2 Individually configurable alarms**
- **2 Front panel LED indicators (amber and red)**
- **2 Optional fully programmable alarm relays (dry contacts)**
- **Output options: 4-20mA (3-wire) analog, RS-485 modbus (4 wire)**
- **1-Year warranty (see specifications)**

Industry Applications

- **Petrochemical plants, Refineries**
- **Water & wastewater treatment plants**
- **Pulp & paper mills**
- **Manufacturing facilities**
- **Chemical plants**

The VOC Pro Series Gas Detector is a versatile assembly that uses a PID sensor to detect a variety of gases. Wired power (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs are standard. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

Ranges	Part # Suffix	PID Lamps			
		10.0 eV	11.7 eV	10.6 eV low ppm	10.6 eV ppm
Part # Base		66-6195-XX	66-6194-XX	66-6192-XX	66-6193-XX
0 - 10.00 ppm	-01	▪	▪	▪	
0 - 20.00 ppm	-02	▪	▪	▪	
0 - 50.00 ppm	-05	▪	▪	▪	
0 - 100 ppm	-10	▪	▪		▪
0 - 200 ppm	-20				▪
0 - 500 ppm	-50		▪		▪
0 - 1000 ppm	-1K		▪		▪
0 - 2000 ppm	-2K				▪

Product Specifications		
Sensor Type		PID
Operating Voltage		Wired power (3-Wire) 12 to 35 VDC
Power Draw		2 Watts maximum
Protection		Power electromagnetic interference (EMI) filter 4-20 mA surge suppression RS-485 surge suppression
Display Screen		102x64 Resolution graphical LCD screen transfective (sunlight readable) with white LED backlight
Interface		3 Push-buttons (MENU, ADD and SUB) 3 Magnetic non-intrusive switches for calibration
Customizable Settings		2 Individual-configurable alarm LED/relay set-points
Temperature Range		-40°C to +54°C (-40°F to +130°F)
Output (digital)		RS-485 modbus
Wired (Analog) Output		4-20 mA (3-Wire) Fault terminal Optional 2 dry-contact relays with replaceable 4 amp fuses
Remote Sensor Kit (Optional Additional Feature)		Remote sensor kit with enclosure (5 pin) • PID sensor max. length: 35 feet
Product Dimensions		5.5 in. L x 6 in. W x 7 in. H (8 in. W x 17 in. H Max. dimensions with attachments)
Total Weight		6 lbs.
Hazardous Location Approvals	Main Enclosure	Certified explosion / flame proof CQPS _{US} Class I, Division 1 & 2, Groups B, C & D, Nema 3, 4, 4X, 7 (B, C, D) 9 (E, F, G) Temp.= -20°C to +60°C
	Sensor Housing	Certified explosion / flame proof CQPS _{US} Class I, Division 1 & 2, Groups B, C & D Temp.= -40°C to +60°C
Controllers		Compatible with all RKI Beacon controllers, as well as most DCS / PLC systems: Beacon 110, Beacon 200, Beacon 410A and Beacon 800, MC-6400
Warranty		1-Year warranty for electronics, and PID sensor (Two months for 11.7 eV lamp)

Specifications subject to change without notice.

Made in the USA



Toll Free: (800) 754-5165 • Phone: (510) 441-5656
Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Sensors & Transmitters

VOC Pro PID Series Explosion Proof Transmitter without Relays, Class I, Div 1

ORDERING INFORMATION: All VOC Pro pricing includes the sensor and explosion proof housing.

10.6 eV Lamp, High PPM Range PID

Part#	Description	Suggested Retail
66-6193-10	VOC Pro (10.6 eV PID) 0-100 ppm, high range sensor/transmitter with j-box	2,700.00
66-6193-50	VOC Pro (10.6 eV PID) 0-500 ppm, high range sensor/transmitter with j-box	2,700.00
66-6193-2K	VOC Pro (10.6 eV PID) 0-2000 ppm, high range sensor/transmitter with j-box	2,700.00



VOC Pro with 10.6 eV Lamp, Low PPM Range PID

Part#	Description	Suggested Retail
66-6192-01	VOC Pro (10.6 eV PID) 0-10.00 ppm, low range sensor/transmitter with j-box	2,900.00
66-6192-02	VOC Pro (10.6 eV PID) 0-20.00 ppm, low range sensor/transmitter with j-box	2,900.00
66-6192-05	VOC Pro (10.6 eV PID) 0-50.00 ppm, low range sensor/transmitter with j-box	2,900.00

VOC Pro with 10.0 eV Lamp, PID

Part#	Description	Suggested Retail
66-6195-01	VOC Pro (10.0 eV PID) 0-10.00 ppm sensor/transmitter with j-box	2,900.00
66-6195-02	VOC Pro, (10.0 eV PID) 0-20.00 ppm, sensor/transmitter with j-box	2,900.00
66-6195-05	VOC Pro, (10.0 eV PID) 0-50.00 ppm, sensor/transmitter with j-box	2,900.00
66-6195-10	VOC Pro, (10.0 eV PID) 0-100.00 ppm, sensor/transmitter with j-box	2,900.00

VOC Pro with 11.7 eV Lamp, PID

Part#	Description	Suggested Retail
66-6194-10	VOC Pro (11.7 eV PID) 0-100 ppm sensor/transmitter with j-box	3,400.00

VOC Series 3-Wire Explosion Proof Transmitter with Relays

ORDERING INFORMATION: To order a VOC Pro with two relays, add -R to the end of the above part # and \$260 to the price.

VOC Pro Replacement Sensors

Part#	Description	Suggested Retail
61-0302	Sensor, Volatile Organic Compounds (VOC) 0-50 ppm, 10.6 eV PID, low ppm sensor for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,200.00
61-0303	Sensor, Volatile Organic Compounds (VOC) 0-2000 ppm, 10.6 eV PID, high ppm sensor for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,000.00
61-0304	Sensor, Volatile Organic Compounds (VOC) 0-100 ppm, 11.7 eV PID for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,700.00
61-0305	Sensor, Volatile Organic Compounds (VOC) 0-100 ppm/0-50 ppm for Benzene, 10.0 eV PID for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,200.00

Fixed Systems Sensors & Transmitters

VOC Pro Series PID Replacement Lamps and Electrode Stacks

PID Sensor	eV	Replacement Lamp	Electrode Stack
61-0302	10.6	51-1503	33-0560-01
61-0303	10.6		33-0562
61-0305	10.0		33-0563
61-0304	11.7	51-1504	33-0560-01

Part#	Description	Suggested Retail
33-0560-01	Electrode Stack for 10.6 (50 ppm sensor) & 11.7 eV lamps used in EAGLE 2, GX-6000, or VOC Pro (1 electrode)	110.00
33-0562	Electrode Stack for 10.6 eV lamp, 0-2,000/6,000 ppm for EAGLE 2, GX-6000, or VOC Pro, (1 electrode)	64.00
33-0563	Electrode Stack for 10.0 eV lamp, 0-100 ppm (50 ppm benzene) for GX-6000 or VOC Pro (1 electrode)	140.00
51-1503	Replacement lamp only, 0-50/-2000/-6000/ HPPM long life type for any 10.6 eV or 10.0 eV PID.	220.00
51-1504	Replacement lamp, 0-1000 ppm for PID-004, 11.7 eV lamp in GX-6000 or VOC Pro	550.00



Electrode Stack



Replacement Lamp



PID sensor

Replacement Parts and Accessories for VOC Pro

Part#	Description	Suggested Retail
47-5110-5-XX	Cable with 5-pin connector to remote mount sensor for explosion proof and non-explosion proof, price per foot (specify length in place of -XX)	7.90
43-4163	Fuse, axial lead, 8.5 mm dia x 8 mm tall, 4A, fast acting, 250V	3.00
61-2001	Remote sensor mounting kit, explosion proof with 5-pin connector for T3A/AirLink T3A/VOC Pro/AirLink VOC Pro (order cable separate)	450.00
81-1183	Cal cup with 3 ft 1/8" ID x 1/4" OD teflon tubing for T2A/T3A/VOC Pro/AirLink 6900 type detectors	175.00
81-1184	Rain guard for T2A/T3A/VOC Pro type explosion proof detector	20.00
82-0101RK	Magnetic wand, for M2A-XL/T2A/T3A/VOC Pro/Air Alert/AirLink Transmitters	20.00
82-0120-02	Magnets (2 each) adder hardware for T3A/VOC Pro type j-box	26.00
82-0300RK	PID lamp cleaning kit with removal tool for 10.0 & 10.6 eV lamps only	52.00
Z2000-CAP-ASSY	Sensor housing cap with flame arrestor and O-ring, for T3A/VOC Pro/6900/6940XP Airlink products and T2A/T3A	210.00

VOC Pro Calibration Kits

Instrument #	Cal-Kit Part #	Cal-Kit Description	Price
66-6192-01 66-6192-02 66-6192-05 66-6193-10 66-6194-02 66-6194-05 66-6194-10 66-6195-01 66-6195-02 66-6195-05 66-6195-10	81-T9210	Cal kit, VOC Pro, 103L cyl Isobutylene 10 ppm in air, 103L cyl, Nitrogen 100%, regulator, case, XP cal cup, and tubing	645.00
	81-T9210-LV	Cal kit, VOC Pro, 34L cyl Isobutylene 10 ppm in air, 34L cyl, Nitrogen 100%, regulator, case, XP cal cup, and tubing	515.00
66-6193-20 66-6193-50 66-6193-1K 66-6193-2K	81-T9320	Cal kit, VOC Pro, 103L cyl Isobutylene 100 ppm in air, 103L cyl, Nitrogen 100%, regulator, case, XP cal cup, and tubing	645.00
	81-T9320-LV	Cal kit, VOC Pro, 34L cyl Isobutylene 100 ppm in air, 34L cyl, Nitrogen 100%, regulator, case, XP cal cup, and tubing	515.00
66-6195-01 66-6195-02 66-6195-05	81-T9510	Cal kit, VOC Pro, 58AL cyl Benzene 10 ppm in air, 103L cyl, Nitrogen 100%, regulator, case, XP cal cup, and tubing	645.00
	81-T9510-LV	Cal kit, VOC Pro, 34AL cyl Benzene 10 ppm in air, 103L cyl, Nitrogen 100%, regulator, case, XP cal cup, and tubing	625.00



STANDALONE TRANSMITTER

Gas Detection For Life

Air Alert



Features

- Electrochemical, Infrared, or PID sensor element
- Wire powered (3-wire), 12-35 VDC operating voltage, optional AC power supply
- Operating temperature range of -40°C to +70°C
- 3 Push-button interface (ADD, MENU, SUB) with 3 corresponding magnetic, non-intrusive switches
- 2 Dry contact relays (optional)
- Graphical LCD with LED backlight
- Output options: 4-20mA (3-wire) analog, RS-485 Modbus, optional 900 MHz or 2.4 GHz radio
- Optional 3 color LED perimeter and audible alarm
- 1-Year warranty

Industry Applications

- Petrochemical plants, Refineries
- Water & wastewater treatment plants
- Pulp & paper mills
- Manufacturing facilities
- Chemical plants

The RKI Air Alert series ambient air toxic gas detector is a versatile assembly that uses an electrochemical, infrared or PID sensor element to detect a variety of gases. Wire powered (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.

Gas	Sensor Type	Range	T ₉₀
AsH ₃	EC	0 - 1 ppm	< 30 sec.
CH ₂ O	EC	0 - 10 ppm	< 30 sec.
CH ₃ SH	EC	0 - 10 ppm	< 100 sec.
CH ₄	IR	0 - 100 ppm	< 30 sec.
CL ₂	EC	0 - 10 ppm	< 60 sec.
CLO ₂	EC	0 - 1 ppm	< 120 sec.
CO	EC	0 - 300 ppm	< 30 sec.
CO ₂	IR	0 - 5% Vol.	< 30 sec.
ETO	EC	0 - 10 ppm	< 80 sec.
F ₂	EC	0 - 1 ppm	< 80 sec.
H ₂	EC	0 - 4% Vol.	< 60 sec.
H ₂ S	EC	0 - 100 ppm	< 30 sec.
H ₂ S ₂ K	EC	0 - 2000 ppm	< 25 sec.
HBr	EC	0 - 30 ppm	< 40 sec.
HCL	EC	0 - 30 ppm	< 300 sec.
HCN	EC	0 - 30 ppm	< 70 sec.
HF	EC	0 - 10 ppm	< 90 sec.
LELCH ₄	IR	0 - 100% LEL (0 - 5% Vol.)	< 30 sec.
LELHC	IR	0 - w 100% LEL	< 30 sec.
NH ₃	EC	0 - 100 ppm	< 90 sec.
NH ₃ 300	EC	0 - 300 ppm	< 120 sec.

Gas	Sensor Type	Range	T ₉₀
NH ₃ A	EC	0 - 1000 ppm	< 120 sec.
NO	EC	0 - 250 ppm	< 40 sec.
NO ₂	EC	0 - 20 ppm	< 25 sec.
O ₂	EC	0 - 25% Vol.	< 15 sec.
O ₃	EC	0 - 5 ppm	< 60 sec.
O ₃ H	EC	0 - 100 ppm	< 60 sec.
PH ₃	EC	0 - 5 ppm	< 30 sec.
SO ₂	EC	0 - 20 ppm	< 35 sec.
R1234YF	IRR	0 - 2000 ppm	< 30 sec.
R22	IRR	0 - 2000 ppm	< 30 sec.
R32	IRR	0 - 2000 ppm	< 30 sec.
R410A	IRR	0 - 2000 ppm	< 30 sec.
RSF6	IRR	0 - 2000 ppm	< 30 sec.
PID - VOC	PID 10.6eV	0 - 10.00 / 20.00 / 50.00 ppm	< 3 sec.
PID - VOC	PID 10.6eV	0 - 100.00 / 200.00 / 500.00 / 1000 / 2000 ppm	< 3 sec.
PID - VOC	PID 10.0 eV	0 - 10.00 / 20.00 / 50.00 / 100 ppm	< 3 sec.
PID - VOC	PID 11.7 eV	0 - 20.00 / 50.00 / 100 ppm	< 3 sec.

Product Specifications	
Sensor Type	Electrochemical, infrared, PID
Power Voltage	Wire powered (2-wire) 12 to 35 VDC (Optional AC power supply)
Power Draw	2 Watts maximum
Protection	• Power electromagnetic interference (EMI) filter • 4-20 mA surge suppression • RS-485 surge suppression
Display Screen	102 x 64 Resolution graphical LCD screen transfective (sunlight readable) with white LED backlight
Interface	3 Push-buttons (MENU, ADD and SUB) 3 Magnetic non-intrusive switches for calibration (MENU, ADD and SUB)
Customizable Settings	2 Individually configurable relay set-points
Product add on Hardware	3 Color LED Perimeter Lights and audible alarm, optional. (this option not available with relay option)
Temperature Range	-40°C to +70°C
Wireless (Analog) Output	4-20 mA (3-wire) fault terminal
Digital Output	RS-485 Modbus Optional 900 MHz or 2.4 GHz radio wireless output
Product Dimensions	5 in. L x 5 in. W x 5 in. H
Total Weight	5 lbs.
Enclosure Material	NEMA Class I, 4, 4X, and 6 polycarbonate enclosure with clear window - IP 66, UL 508 and UL 746C (f1) rated
Construction	For use in non hazardous areas only
Controllers	Compatible with AirLink 7010, AirLink 7032, Beacon 110, Beacon 200, Beacon 410A, and Beacon 800
Warranty	1-Year warranty for electronics and sensor (Two months for PID with 11.7 eV lamp)

Specifications subject to change without notice.

Made in the USA



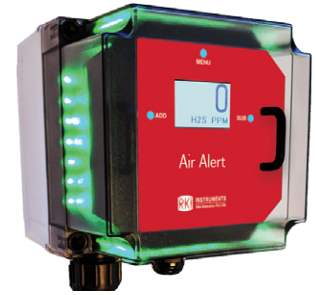
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Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Sensors & Transmitters

Air Alert Stand-Alone Non Explosion Proof Transmitter

- Stand alone transmitter
- 115-240 VAC power standard
- With power cord & cable grip
- Buzzer with 3-color LED for alarms
- Wireless radio option, 900 MHz or 2.4 GHz
- Not equipped with relays



ORDERING INFORMATION:

- 66-5[AC power=A][Sensor Designator]-[Range suffix]-[3 color LEDs=L/Green only LED=G]
[900 MHz radio=W/2.4 MHz radio=Y]
- To order with wireless radio enter W or Y to the end of the part # and add \$260 to the price.

Part#	Description	Suggested Retail
66-5A06-10-L	Air Alert, Ammonia (NH3) 0-100 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A06-20-L	Air Alert, Ammonia (NH3) 0-200 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A06-30-L	Air Alert, Ammonia (NH3) 0-300 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A06-50-L	Air Alert, Ammonia (NH3) 0-500 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A06-1K-L	Air Alert, Ammonia (NH3) 0-1000 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A68-01-L	Air Alert, Arsine (AsH3) 0-1 ppm, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A54-05-L	Air Alert, Carbon Dioxide (CO2) 0-5000 ppm, IR, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A50-05-L	Air Alert, Carbon Dioxide (CO2) 0-5% vol, IR, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A01-05-L	Air Alert, Carbon Monoxide (CO) 0-500 ppm, AC power, 3-color alarm LED's and buzzer	1,870.00
66-5A01-1K-L	Air Alert, Carbon Monoxide (CO) 0-1000 ppm, AC power, 3-color alarm LED's and buzzer	1,870.00
66-5A12-10-L	Air Alert, Chlorine (Cl2) 0-10 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A13-01-L	Air Alert, Chlorine Dioxide (ClO2) 0-1 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A13-05-L	Air Alert, Chlorine Dioxide (ClO2) 0-5 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A16-10-L	Air Alert, Ethylene Oxide (ETO) 0-10 ppm, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A11-10-L	Air Alert, Formaldehyde (HCHO) 0-10 ppm, AC power, 3-color alarm LED's and buzzer.....	2,530.00
66-5A64-20-L	Air Alert, Freon (R404A) 0-2000 ppm, AC power, 3-color alarm LED's and buzzer	2,980.00
66-5A65-20-L	Air Alert, Freon (R410A) 0-2000 ppm, AC power, 3-color alarm LED's and buzzer	2,980.00
66-5A51-10-L	Air Alert, Hydrocarbons (CH4) 0-100% LEL, IR, AC power, 3-color alarm LED's and buzzer.....	2,530.00
66-5A52-99-L	Air Alert, Hydrocarbons (CH4) 0-100% vol, IR, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A53-10-L	Air Alert, Hydrocarbons (HC) 0-100% LEL, IR, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A39-40-L	Air Alert, Hydrogen (H2) 0-100% LEL (0-4% vol), AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A04-02-L	Air Alert, Hydrogen Chloride (HCl) 0-20 ppm, AC power, 3-color alarm LED's and buzzer	2,520.00
66-5A04-03-L	Air Alert, Hydrogen Chloride (HCl) 0-30 ppm, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A04-10-L	Air Alert, Hydrogen Chloride (HCl) 0-100 ppm, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A05-50-L	Air Alert, Hydrogen Cyanide (HCN) 0-50 ppm, AC power, 3-color alarm LED's, and buzzer	2,040.00
66-5A14-10-L	Air Alert, Hydrogen Fluoride (HF) 0-10 ppm, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A03-01-L	Air Alert, Hydrogen Sulfide (H2S) 0-10 ppm, AC power, 3-color alarm LED's and buzzer	1,870.00
66-5A03-02-L	Air Alert, Hydrogen Sulfide (H2S) 0-25 ppm, AC power, 3-color alarm LED's and buzzer	1,870.00
66-5A03-05-L	Air Alert, Hydrogen Sulfide (H2S) 0-50 ppm, AC power, 3-color alarm LED's and buzzer	1,870.00
66-5A03-10-L	Air Alert, Hydrogen Sulfide (H2S) 0-100 ppm, AC power, 3-color alarm LED's and buzzer	1,870.00
66-5A03-50-L	Air Alert, Hydrogen Sulfide (H2S) 0-500 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A03-2K-L	Air Alert, Hydrogen Sulfide (H2S) 0-2000 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A08-20-L	Air Alert, Nitrogen Dioxide (NO2) 0-20 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A07-25-L	Air Alert, Nitric Oxide (NO) 0-250 ppm, AC power, 3-color alarm LED's and buzzer	2,040.00
66-5A02-25-L	Air Alert, Oxygen (O2) 0-25% vol, AC power, 3-color alarm LED's and buzzer.....	1,870.00
66-5A09-05-L	Air Alert, Ozone (O3) 0-5 ppm, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A09-99-L	Air Alert, Ozone (O3) 0-100 ppm, AC power, 3-color alarm LED's and buzzer	2,530.00
66-5A15-05-L	Air Alert, Phosphine (PH3) 0-5 ppm, AC power, 3-color alarm LED's and buzzer	2,670.00
66-5D66-2K-L	Air Alert, Sulfur Hexafluoride (SF6) 0-2000 ppm, DC power, 3-color alarm LED's and buzzer.....	2,980.00
66-5A10-20-L	Air Alert, Sulfur Dioxide (SO2) 0-20 ppm, AC power, 3-color alarm LED's and buzzer.....	2,040.00

Fixed Systems Sensors & Transmitters

Air Alert Stand-Alone Non Explosion Proof Transmitter

Part#	Description	Suggested Retail
66-5A92-01-L	Air Alert, VOC (10.6 eV PID) 0-10 ppm, AC power, 3-color alarm LED's and buzzer	3,100.00
66-5A92-02-L	Air Alert, VOC (10.6 eV PID) 0-20 ppm, AC power, 3-color alarm LED's and buzzer	3,100.00
66-5A92-05-L	Air Alert, VOC (10.6 eV PID) 0-50 ppm, AC power, 3-color alarm LED's and buzzer	3,100.00
66-5A93-10-L	Air Alert, VOC (10.6 eV PID) 0-100 ppm, AC power, 3-color alarm LED's and buzzer	2,920.00
66-5A93-20-L	Air Alert, VOC (10.6 eV PID) 0-200 ppm, AC power, 3-color alarm LED's and buzzer	2,920.00
66-5A93-50-L	Air Alert, VOC (10.6 eV PID) 0-500 ppm, AC power, 3-color alarm LED's and buzzer	2,920.00
66-5A93-1K-L	Air Alert, VOC (10.6 eV PID) 0-1000 ppm, AC power, 3-color alarm LED's and buzzer	2,920.00
66-5A93-2K-L	Air Alert, VOC (10.6 eV PID) 0-2000 ppm, AC power, 3-color alarm LED's and buzzer	2,920.00
66-5A95-01-L	Air Alert, VOC (10.0 eV PID) 0-10 ppm, AC power, 3-color alarm LED's and buzzer	3,100.00
66-5A95-02-L	Air Alert, VOC (10.0 eV PID) 0-20 ppm, AC power, 3-color alarm LED's and buzzer	3,100.00
66-5A95-05-L	Air Alert, VOC (10.0 eV PID) 0-50 ppm, AC power, 3-color alarm LED's and buzzer	3,100.00
66-5A95-10-L	Air Alert, VOC (10.0 eV PID) 0-100 ppm, AC power, 3-color alarm LED's and buzzer	3,100.00
66-5A94-10-L	Air Alert, VOC (11.7 eV PID) 0-100 ppm, AC power, 3-color alarm LED's and buzzer	3,900.00

Air Alert Calibration Kits

Instrument #	Cal-Kit Part #	Cal-Kit Description	Price
Ammonia	81-T0699N-LV	Cal kit, Air Alert/AirLink Alert, 34AL cyl NH3 100 ppm in N2, regulator, case, cal cup for non-XP sensors, and tubing	605.00
Chlorine	81-T1220N-LV	Cal kit, Air Alert/AirLink Alert, 34AL cyl Cl2 5 ppm in N2, regulator, case, cal cup for non-XP sensors, and tubing	505.00
	81-T1220N-LV	Cal kit, Air Alert/AirLink Alert, 34AL cyl Cl2 5 ppm in N2, regulator, case, cal cup for non-XP sensors, and tubing	505.00
HydrogenChloride	81-T0410N-LV	Cal kit, Air Alert/AirLink Alert, 34AL cyl HCl 5 ppm in N2, regulator, case, cal cup for non-XP sensors, and tubing	565.00
HydrogenFluoride	81-T1410N-LV	Cal kit, Air Alert/AirLink Alert for HF, 34AL cyl Cl2 2 ppm in N2, regulator, case, cal cup for non-XP sensors, and tubing	505.00
SulfurDioxide	81-T1020N	Cal kit, Air Alert/AirLink Alert, 58AL cyl SO2 5 ppm in N2, regulator, case, cal cup for non-XP sensors, and tubing	385.00

Fixed Systems Sensors & Transmitters

Air Alert Stand-Alone Non Explosion Proof Transmitter with Relays

- Stand alone transmitter
- 115-240 VAC power with power cord & cable grip standard
- AC version available and comes with power cord & cable grip
- 2 Relays
- Alarm buzzer or LED's not available
- Wireless radio option, 900 MHz or 2.4 GHz



ORDERING INFORMATION:

- 66-5[AC power=A][Sensor Designator]-[Range suffix]-[Relays=R]
[900 MHz radio=W/2.4 MHz radio=Y]
- To order with wireless radio enter W or Y to the end of the part # and add \$260 to the price.

Part#	Description	Suggested Retail
66-5A06-10-R	Air Alert, Ammonia (NH3) 0-100 ppm, AC power, 2 relays	1,650.00
66-5A06-20-R	Air Alert, Ammonia (NH3) 0-200 ppm, AC power, 2 relays	1,650.00
66-5A06-30-R	Air Alert, Ammonia (NH3) 0-300 ppm, AC power, 2 relays	1,650.00
66-5A06-50-R	Air Alert, Ammonia (NH3) 0-500 ppm, AC power, 2 relays	1,650.00
66-5A06-1K-R	Air Alert, Ammonia (NH3) 0-1000 ppm, AC power, 2 relays	1,650.00
66-5A68-01-R	Air Alert, Arsine (AsH3) 0-1 ppm, AC power, 2 relays	2,145.00
66-5A54-05-R	Air Alert, Carbon Dioxide (CO2) 0-5,000 ppm IR, AC power, 2 relays	2,145.00
66-5A50-05-R	Air Alert, Carbon Dioxide (CO2) 0-5% vol, IR, AC power, 2 relays	2,145.00
66-5A01-03-R	Air Alert, Carbon Monoxide (CO) 0-300 ppm, AC power, 2 relays	1,480.00
66-5A01-1K-R	Air Alert, Carbon Monoxide (CO) 0-1000 ppm, AC power, 2 relays	1,480.00
66-5A12-10-R	Air Alert, Chlorine (Cl2) 0-10 ppm, AC power, 2 relays	1,650.00
66-5A13-01-R	Air Alert, Chlorine Dioxide (ClO2) 0-1 ppm, AC power, 2 relays	1,650.00
66-5A13-05-R	Air Alert, Chlorine Dioxide (ClO2) 0-5 ppm, AC power, 2 relays	1,650.00
66-5A16-10-R	Air Alert, Ethylene Oxide (ETO) 0-10 ppm, AC power, 2 relays	2,145.00
66-5A11-10-R	Air Alert, Formaldehyde (HCHO) 0-10 ppm, AC power, 2 relays	2,145.00
66-5A64-20-R	Air Alert, Freon (R404A) 0-2000 ppm, AC power, 2 relays	2,560.00
66-5A65-20-R	Air Alert, Freon (R410A) 0-2000 ppm, AC power, 2 relays	2,560.00
66-5A51-10-R	Air Alert, Hydrocarbons (CH4) 0-100% LEL, IR, AC power, 2 relays	2,145.00
66-5A52-99-R	Air Alert, Hydrocarbons (CH4) 0-100% VOL, IR, AC power, 2 relays	2,145.00
66-5A53-10-R	Air Alert, Hydrocarbons (HC) 0-100% LEL, IR, AC power, 2 relays	2,145.00
66-5A39-40-R	Air Alert, Hydrogen (H2) 0-100% LEL (0-4% vol), EC sensor, AC power, 2 relays	2,145.00
66-5A04-02-R	Air Alert, Hydrogen Chloride (HCl) 0-20 ppm, AC power, 2 relays	2,145.00
66-5A04-03-R	Air Alert, Hydrogen Chloride (HCl) 0-30 ppm, AC power, 2 relays	2,145.00
66-5A04-10-R	Air Alert, Hydrogen Chloride (HCl) 0-100 ppm, AC power, 2 relays	2,145.00
66-5A05-50-R	Air Alert, Hydrogen Cyanide (HCN) 0-50 ppm, AC power, 2 relays	1,650.00
66-5A14-10-R	Air Alert, Hydrogen Fluoride (HF) 0-10 ppm, AC power, 2 relays	2,145.00
66-5A03-01-R	Air Alert, Hydrogen Sulfide (H2S) 0-10 ppm, AC power, 2 relays	1,480.00
66-5A03-02-R	Air Alert, Hydrogen Sulfide (H2S) 0-25 ppm, AC power, 2 relays	1,480.00
66-5A03-05-R	Air Alert, Hydrogen Sulfide (H2S) 0-50 ppm, AC power, 2 relays	1,480.00
66-5A03-10-R	Air Alert, Hydrogen Sulfide (H2S) 0-100 ppm, AC power, 2 relays	1,480.00
66-5A03-50-R	Air Alert, Hydrogen Sulfide (H2S) 0-500 ppm, AC power, 2 relays	1,650.00
66-5A03-2K-R	Air Alert, Hydrogen Sulfide (H2S) 0-2000 ppm, AC power, 2 relays	1,650.00
66-5A07-25-R	Air Alert, Nitric Oxide (NO) 0-250 ppm, AC power, 2 relays	1,650.00
66-5A08-20-R	Air Alert, Nitrogen Dioxide (NO2) 0-20 ppm, AC power, 2 relays	1,650.00
66-5A02-25-R	Air Alert, Oxygen (O2) 0-25% vol, AC power, 2 relays	1,480.00
66-5A09-05-R	Air Alert, Ozone (O3) 0-5 ppm, AC power, 2 relays	2,145.00
66-5A09-99-R	Air Alert, Ozone (O3) 0-100 ppm, AC power, 2 relays	2,145.00
66-5A15-05-R	Air Alert, Phosphine (PH3) 0-5 ppm, AC power, 2 relays	2,285.00
66-5A10-20-R	Air Alert, Sulfur Dioxide (SO2) 0-20 ppm, AC power, 2 relays	1,650.00
66-5A66-2K-R	Air Alert, Sulfur Hexafluoride (SF6) 0-2000 ppm, AC power, 2 relays	2,560.00

Fixed Systems Sensors & Transmitters

Air Alert Stand-Alone Non Explosion Proof Transmitter with Relays

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
66-5A92-01-R	Air Alert, VOC (10.6 eV PID) 0-10 ppm, AC power, 2 relays	2,725.00
66-5A92-02-R	Air Alert, VOC (10.6 eV PID) 0-20 ppm, AC power, 2 relays	2,725.00
66-5A92-05-R	Air Alert, VOC (10.6 eV PID) 0-50 ppm, AC power, 2 relays	2,725.00
66-5A93-10-R	Air Alert, VOC (10.6 eV PID) 0-100 ppm, AC power, 2 relays	2,535.00
66-5A93-20-R	Air Alert, VOC (10.6 eV PID) 0-200 ppm, AC power, 2 relays	2,535.00
66-5A93-50-R	Air Alert, VOC (10.6 eV PID) 0-500 ppm, AC power, 2 relays	2,535.00
66-5A93-1K-R	Air Alert, VOC (10.6 eV PID) 0-1000 ppm, AC power, 2 relays	2,535.00
66-5A93-2K-R	Air Alert, VOC (10.6 eV PID) 0-2000 ppm, AC power, 2 relays	2,535.00
66-5A95-01-R	Air Alert, VOC (10.0 eV PID) 0-10 ppm, AC power, 2 relays	2,725.00
66-5A95-02-R	Air Alert, VOC (10.0 eV PID) 0-20 ppm, AC power, 2 relays	2,725.00
66-5A95-05-R	Air Alert, VOC (10.0 eV PID) 0-50 ppm, AC power, 2 relays	2,725.00
66-5A95-10-R	Air Alert, VOC (10.0 eV PID) 0-100 ppm, AC power, 2 relays	2,725.00
66-5A94-10-R	Air Alert, VOC (11.7 eV PID) 0-100 ppm, AC power, 2 relays	3,350.00

Fixed Systems Sensors & Transmitters

Replacement Parts and Accessories for Air Alert

Part#	Description	Suggested Retail
47-5110-5-XX	Cable with 5-pin connector to remote mount sensor for explosion proof and non-explosion proof, price per foot (specify length in place of -XX)	7.90
61-2000	Remote sensor mounting kit for Air Alert, non-explosion proof (order cable separately)	190.00
81-1185	Cal cup with 3 ft 1/8" ID x 1/4" OD teflon tubing, for non explosion proof Air Alert and AirLink Alert type detectors	45.00
81-1186	Cal cup for Freon sensor with 3 ft tubing, non explosion proof Air Alert and AirLink Alert type detectors	190.00
ZA-SD-CAP-ASSY	Flow through adapter, for Air Alert/AirLink Alert	165.00

Air Alert Replacement Sensors

Part#	Description	Suggested Retail
66-0006-1	Sensor, Ammonia (NH3) covers full scale up to 100 ppm, EC type	400.00
66-0006-2	Sensor, Ammonia (NH3) high range, covers full scale from 200 to 1000 ppm, Semeatech, EC type	400.00
66-0068	Sensor, Arsine (AsH3) 0 - 1 ppm, EC type	900.00
66-0054	Sensor, Carbon Dioxide (CO2) 0 - 5000 ppm, IR type	900.00
66-0050	Sensor, Carbon Dioxide (CO2) 0 - 5 % volume, IR type	900.00
66-0001	Sensor, Carbon Monoxide (CO) covers full scale up to 0 - 1000 ppm, EC type	220.00
66-0012	Sensor, Chlorine (Cl2) covers full scale up to 20 ppm, EC type	400.00
66-0013	Sensor, Chlorine Dioxide (ClO2) covers full scale up to 5 ppm, EC type	400.00
66-0016	Sensor, Ethylene Oxide (ETO) 0 - 10 ppm, EC type	900.00
66-0011	Sensor, Formaldehyde (HCHO) 0 - 10 ppm, EC type	900.00
66-0064	Sensor, Freon 404A (R-404A) 0 - 2000 ppm, IR type for Air Alert	1,350.00
66-0065	Sensor, Freon 410A (R-410A) 0 - 2000 ppm, IR type for Air Alert	1,350.00
66-0040	Sensor, Hydrocarbons (CH4) 0 - 100 % LEL, catalytic type	220.00
66-0051	Sensor, Hydrocarbons (CH4) 0 - 100 % LEL, IR type	900.00
66-0052	Sensor, Hydrocarbons (CH4) 0 - 100 % volume, IR type	900.00
66-0053	Sensor, Hydrocarbons (HC) 0-100% LEL, IR type	900.00
66-0039	Sensor, Hydrogen (H2) 0 - 100% LEL (0-4% vol), EC type	900.00
66-0004-1	Sensor, Hydrogen Chloride (HCl) covers full scale up to 20 ppm, EC type	900.00
66-0004-2	Sensor, Hydrogen Chloride (HCl) covers full scale up to 200 ppm, EC type	900.00
66-0005	Sensor, Hydrogen Cyanide (HCN) 0 - 50 ppm, EC type	400.00
66-0014	Sensor, Hydrogen Fluoride (HF) 0 - 10 ppm, EC type	900.00
66-0003-1	Sensor, Hydrogen Sulfide (H2S) 0 - 100 ppm, EC type	220.00
66-0003-2	Sensor, Hydrogen Sulfide (H2S) covers full scale from 200 ppm to 2000 ppm, EC type	400.00
66-0007	Sensor, Nitric Oxide (NO) covers full scale up to 250 ppm, EC type	400.00
66-0008	Sensor, Nitrogen Dioxide (NO2) 0 - 20 ppm, EC type	400.00
66-0002	Sensor, Oxygen (O2) 0 - 25 % volume	220.00
66-0009-1	Sensor, Ozone (O3) 0 - 5 ppm, EC type	900.00
66-0009-2	Sensor, Ozone (O3) high range sensor covers full scale from 10 ppm to 100 ppm, EC type	900.00
66-0015	Sensor, Phosphine (PH3) 0 - 5 ppm, EC type	1,025.00
66-0010	Sensor, Sulfur Dioxide (SO2) 0 - 20 ppm, EC type	400.00
66-0066	Sensor, Sulfur Hexafluoride (SF6) 0-2000 ppm, EC type	1,350.00
61-0302	Sensor, Volatile Organic Compounds (VOC) 0-50 ppm, 10.6 eV PID, low ppm sensor for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,200.00
61-0303	Sensor, Volatile Organic Compounds (VOC) 0-2000 ppm, 10.6 eV PID, high ppm sensor for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,000.00
61-0305	Sensor, Volatile Organic Compounds (VOC) 0-100 ppm/0-50 ppm for Benzene, 10.0 eV PID for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,200.00
61-0304	Sensor, Volatile Organic Compounds (VOC) 0-100 ppm, 11.7 eV PID for VOC Pro, Air Alert, AirLink VOC Pro, AirLink Alert	1,700.00



EXPLOSION PROOF TRANSMITTER

Gas Detection For Life

MODEL SD-1 SERIES



Features

- **Wide range of detectable gases**
 - % LEL Combustibles, catalytic
 - % LEL Combustibles & CO₂, IR
 - H₂S, CO, & O₂
 - PPM for acrylonitrile, hydrogen, ethylene oxide, n-methyl pyrrolidone, methylene chloride, and many others
- **Sensor types include**
 - Catalytic, Galvanic Cell, MOS, IR, & Electrochemical
- **Direct digital display of gas readings**
- **HART Communication protocol**
 - HART over 4-20mA or 4-20mA linear output
- **Available with SIL2 approval (IR, EC, OX versions)**
- **Easy maintenance using a magnetic key**
- **Self-diagnosis by microprocessor**
- **Low power operation (Maximum: 3W)**
- **Explosion proof: ATEX, IECEx, ExdIICT5**

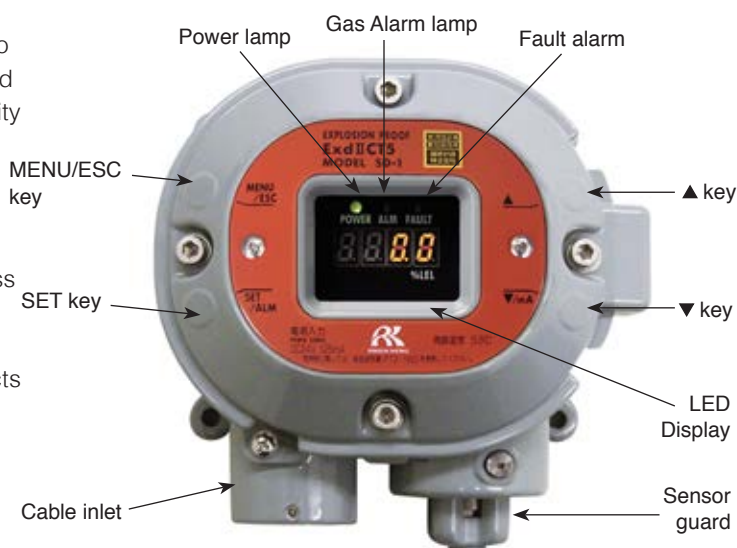
Applications

- LNG Terminal
- Petrochemical/Chemical plants
- Power plant
- Utilities
- Iron and steel works



RKI Instrument's model SD-1 Series smart combustible gas, toxic gas, oxygen, and organic vapor detector/transmitter is a robust and reliable explosion proof design for detecting LEL and ppm levels of hazardous atmospheres. In addition to measuring the common % LEL levels of methane, hexane and isobutane, for example, the SD-1 Series also has the capability of measuring a wide variety of toxic organic compounds in a PPM range such as acrylonitrile, ethylene oxide, n-methyl pyrrolidone, methylene chloride and many others. This gives the SD-1 Series a unique niche in RKI's gas detector line-up. The SD-1 has an ATEX/IECEX approval for the explosion class ExdIICT5 and has an IP-65/67 ingress protection rating.

The SD-1 has a 4-20mA signal output as well as relay contacts for interfacing with other control systems or monitoring facilities. **All SD-1 types are also available with HART communication instead of 4-20mA relay. SIL2 is available for the IR, EC and OX types.** In facilitating non-intrusive conditions in hazardous atmospheres, the SD-1 can be calibrated and it's menus navigated with magnetic switches and a magnetic key.



MODEL SD-1 SERIES

Model	SD-1GP 	SD-1RI 	SD-1GH 	SD-1EC 	SD-10X 	
Detection principle	Catalytic	Infrared		Semiconductor	Electrochemical	Galvanic Cell
Measuring gas	Variety of hydrocarbons		CO2	See chart below	CO/H2S	Oxygen
Measuring range	0 -100% LEL		0-10,000 ppm 0-20% vol		CO: 0-75 ppm H2S: 0-30 ppm	0 -25% vol
Alarm setting	2 programmable alarm set points/increasing/decreasing/latching/ self resetting/on delays/off delays/energized/de-energized					
Alarm contacts	Normally open or normally closed					
Sampling method	Diffusion (Flow adapter and air aspiration available)					
Display	4 digit Digital LED					
Output	4-20 mA or HART (optional)					
Relay	1 Relay with 4-20 mA versions or No relay with HART versions					
Contact capacity	30 VDC 0.5A or 120 VAC 0.5A (load resistance)					
Fail alert Self diagnosis	Circuit failure / Sensor failure					
Fail alert display	Fail lamp (Yellow)					
Power source	24VDC (17VDC ~ 26.4VDC)					
Operating Temperature & humidity	-4 ~ + 140°F / below 95% RH (non condensing) [-20 ~ + 60°C], (SD-1EC Below 80% RH)					
Dimension & Weight	5.8"(W) x 6.3"(H) x 3.5" (D) , Approx. 4.4 lbs [148(W) x 161(H) x 88(D) mm, Approx. 2.0kg]					
Approvals **Applied to SD-1GP for H2, CH4, i-C4H10, C3H8	Exd II CT5,ATEX **	CML 15ATEX1034 IECEX, SIL2	Exd II CT5,ATEX, IECEX	DEKRA 13ATEX0035 IECEX DEK 13.0024X, SIL2		

***Applied to SD-1GP for H2, CH4, i-C4H10, C3H8

SD-1GH Detectable Gases & Measuring Ranges

Detection Gas	Formula	Full Scale Ranges		TLV-TWA (ppm)	LEL	Detection Gas	Formula	Full Scale Ranges		TLV-TWA (ppm)	LEL
		Low (ppm)	High (ppm)					Low (ppm)	High (ppm)		
Acetic acid	C2H4O2	500	3000	10	4.0	R-12	CHClF2	300	5000	1000	-
Acetone	C3H6O	100	10000	500	2.15	Hydrogen	H2	200	10000	-	4.0
Acetylene	C2H2	200	3000	-	1.5	Hydrogen Specific	H2	200	2000	-	4.0
Acrylonitrile	C3H3N	500	1000	2	2.8	Hydrogen sulfide	H2S	20	100	1	-
Ammonia	NH3	500	1000	25	15	Isopropyl alcohol	C3H8O	300	5000	200	2.0
Benzene	C6H6	200	2000	0.5	1.2	Methane	CH4	2000	100%LEL	-	5.0(CH4)
Buthylacetate	C6H12O2	100	5000	150	1.4	Propane	C3H8	2000	100%LEL	-	2.0(C3H8)
Buthylacrylate	C7H12O2	50	1000	2	1.5	Methyl alcohol	CH3OH	100	5000	200	5.5
n-Buthyl alcohol	C4H10O	100	5000	400	1.4	Methyl bromide	CH3Br	200	1000	5	8.6
Chloroform	CHCl3	200	5000	10	-	Methyl ethyl ketone	C4H8O	30	5000	200	1.8
Cyclohexane	C6H12	200	5000	100	1.3	Methyl isobutyl ketone	C6H12O	50	500	50	1.2
Cyclohexanone	C6H10O	50	1000	20	1.1	Methylene choride	CH2Cl2	500	5000	50	13.0
2-ethoxyethyl acetate	C6H12O3	100	3000	5	1.7	n-Hexane	n-C6H14	100	5000	50	1.2
Ethyl acetate	C4H8O2	100	5000	20	2.1	Tetrahydrofuran	C4H8O	20	3000	100	1.2
Ethyl alcohol	C2H5OH	100	5000	1000	3.3	Toluene	C7H8	20	3000	100	1.2
Ethylene	C2H4	200	5000	200	2.7	Trichloroethylene	C2HCl3	300	5000	50	7.9
Ethylene oxide	C2H4O	100	1000	1	3.0	Vinyl chloride	C2H3Cl	200	3000	5	3.8
R-11	CCl3F	2000	5000	1000	-	Xylene	C8H10	100	2000	100	1.0



(800) 754-5165
www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Sensors & Transmitters

SD-1 GP Explosion Proof Transmitter LEL Catalytic, 4-20mA Transmitter

Part#	Description	Suggested Retail
SD-1GP-XXX	SD-1GP detector head, LEL 0 - 100% catalytic type, replace XXX with specified gas, 4-20 mA transmitter	850.00
SD-1GP-ACN	SD-1GP detector head, Acrylonitrile (ACN) 0 - 100% LEL, 4-20 mA transmitter	850.00
SD-1GP-CH4	SD-1GP detector head, Methane (CH4) 0 - 100% LEL, 4-20 mA transmitter	850.00
SD-1GP-H2	SD-1GP detector head, Hydrogen (H2) 0 - 100% LEL, 4-20 mA transmitter	850.00



GP

SD-1 RI Explosion Proof Transmitter LEL Infrared, 4-20mA Transmitter

Part#	Description	Suggested Retail
SD-1DRI-AS-IPA	SD-1DRI-AS detector head, Isopropyl Alcohol (IPA) 0 - 100% LEL, 4-20 mA transmitter, air aspirator type	4,150.00
SD-1DRI-IC4H10	SD-1DRI detector head, Isobutane (C4H10) 0 - 100% LEL, 4-20 mA transmitter with sample adapter (flow through chamber) ...	1,650.00
SD-1DRI-CH4	SD-1DRI detector head, methane (CH4) 0 - 100% LEL, 4-20 mA transmitter with sample adapter (flow through chamber) ...	1,650.00
SD-1RI-CO2-02	SD-1RI detector head, Carbon Dioxide (CO2) 0-10,000 ppm infrared type, 4-20 mA transmitter	1,400.00
SD-1RI-CO2-04	SD-1RI detector head, Carbon Dioxide (CO2) 0-20% vol infrared type, 4-20 mA transmitter	1,400.00
SD-1RI-XXX	SD-1RI detector head, LEL infrared type, replace XXX with specified gas, 4-20 mA transmitter	1,400.00



RI

SD-1 GH Explosion Proof Transmitter Semiconductor, 4-20mA Transmitter

Part#	Description	Suggested Retail
SD-1GH-XXX	SD-1GH detector head, semiconductor type, replace XXX with specified gas, 4-20 mA transmitter	995.00
SD-1GH-ACN	SD-1GH detector head, Acrylonitrile (ACN) 0-100 ppm, 4-20 mA transmitter	995.00
SD-1GH-EO-1K	SD-1GH detector head, Ethylene Oxide (C2H4O) 0-1000 ppm with SG-8521, 4-20 mA transmitter	995.00
SD-1DGH-H500	SD-1GH detector head, Hexane (C4H10) 0-500 ppm, 4-20 mA transmitter with sample adapter (flow through chamber) ...	1,550.00



GH

SD-1 EC Explosion Proof Transmitter Electrochemical, 4-20mA Transmitter

Part#	Description	Suggested Retail
SD-1EC-CO-75	SD-1EC detector head, Carbon Monoxide (CO) 0 - 75 ppm, 4-20 mA transmitter	1,295.00
SD-1EC-H2S-30	SD-1 EC detector head, Hydrogen Sulfide (H2S) 0 - 30 ppm, 4-20 mA	1,295.00



EC

SD-1 OX Explosion Proof Transmitter Oxygen, 4-20mA Transmitter

Part#	Description	Suggested Retail
SD-1OX	SD-1OX detector head, Oxygen (O2) 0 - 25% vol, 4-20 mA transmitter	1,195.00



OX

Fixed Systems Sensors & Transmitters

SD-1 GP Explosion Proof Transmitter LEL Catalytic - HART Communication (no relay)

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
SD-1GP-CH4-H	SD-1GP detector head, Methane (CH4) 0 - 100% LEL with HART communication (no relay)	850.00
SD-1GP-H2-H	SD-1GP detector head, Hydrogen (H2) 0 - 100% LEL with HART communication (no relay)	850.00



SD-1 RI Explosion Proof Transmitter LEL Infrared - HART Communication (no relay)

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
SD-1DRI-XXX-H	SD-1DRI detector head, LEL 0 - 100% infrared type with sample adapter hardware (flow through chamber) and HART communication (no relay), replace XXX with specified gas	1,650.00
SD-1DRIAS-XXX-H	SD-1DRI detector head, LEL 0 - 100% infrared type with air aspirator hardware and HART communication (no relay), replace XXX with specified gas	4,150.00



SD-1 GH Explosion Proof Transmitter Semiconductor - HART Communication (no relay)

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
SD-1GH-XXX-H	SD-1GH detector head, semiconductor type with HART communication (no relay), replace XXX with specified gas	995.00
SD-1DGH-H500-H	SD-1GH-H500-H detector head, Hexane (C4H10) 0-500 ppm with HART communication (no relay), with sample adapter (flow through chamber)	1,600.00



SD-1 EC Explosion Proof Transmitter Electrochemical - HART Communication (no relay)

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
SD-1EC-H2S-H	SD-1EC detector head, Hydrogen Sulfide (H2S) 0 - 30 ppm with HART communication (no relay)	1,295.00



SD-1 OX Explosion Proof Transmitter Oxygen - HART Communication (no relay)

<u>Part#</u>	<u>Description</u>	<u>Suggested Retail</u>
SD-1OX-H	SD-1OX detector head, Oxygen (O2) 0 - 25% vol with HART communication (no relay)	1,195.00



Fixed Systems Sensors & Transmitters

SD-1 RI Explosion Proof Transmitter LEL Infrared - HART & SIL2 (no relay)

Part#	Description	Suggested Retail
SD-1RI-XXX-HS	SD-1RI detector head, infrared type with HART communication & SIL (no relay), replace XXX with specified gas	1,400.00
SD-1DRI-XXX-HS	SD-1DRI detector head, LEL 0 - 100% infrared type with sample adapter hardware (flow through chamber) and HART communication & SIL (no relay), replace XXX with specified gas	1,650.00
SD-1DRIAS-XXXHS	SD-1DRI detector head, LEL 0 - 100%, infrared type with air aspirator and HART communication & SIL (no relay), replace XXX with specified gas	4,150.00



RI

SD-1 EC Explosion Proof Transmitter Electrochemical - HART & SIL2 (no relay)

Part#	Description	Suggested Retail
SD-1EC-CO-HS	SD-1EC detector head, Carbon Monoxide (CO) 0 - 75 ppm with HART communication (no relay)	1,295.00
SD-1EC-H2S-HS	SD-1EC detector head, Hydrogen Sulfide (H2S) 0 - 30 ppm, with HART communication (no relay)	1,295.00



EC

SD-1 OX Explosion Proof Transmitter Oxygen - HART & SIL2 (no relay)

Part#	Description	Suggested Retail
SD-1OX-HS	SD-1OX detector head, Oxygen (O2) 0 - 25% vol with HART communication and SIL (no relay)	1,195.00



OX

SD-1 Replacement Sensors

Part#	Description	Suggested Retail
ES-831-CO	Sensor, Carbon Monoxide (CO) 0-75 ppm for SD-703EC / SD-705EC	495.00
ES-837RP	Sensor, Hydrogen Sulfide (H2S) 0-30 ppm for SD-703EC	500.00
NC-6239	Sensor, LEL combustible (catalytic), NC-6239, plug-in	220.00
NC-6245	Sensor, Combustible 0-100% LEL for sample draw 35-3001, 35-3000, SD-1, and Model 1017	220.00
OS-B11E-A	Sensor, Oxygen (O2) 0-25% vol for SD-1OX	220.00
SG-8511	Sensor, SG-8511, MOS (specify gas and range)	300.00
SG-8521	Sensor, SG-8521, MOS sensor only, ppm (specify gas & range)	300.00
SG-8523	Sensor, SG-8523, MOS, TCE 300, GD-A8V	300.00
SG-8563	Sensor, Ethylene Oxide (ETO), 0 - 1000 ppm replacement sensor	300.00
SG-8563-ETO-100	Sensor, Ethylene Oxide (ETO), 0-100 ppm replacement sensor	300.00
SG-8565	Sensor, Ethanol (C2H5OH), 0 - 2000/5000 ppm replacement sensor	300.00

Note: Consult factory for other sensor types.

SD-1 Replacement Parts & Accessories

Part#	Description	Suggested Retail
21-0254	Sun-shade cover with bracket for pipe mounting for SD-1	260.00
30-0965	Aspirator adapter, sample draw for SD-1, Acetylene (C2H2) solvent gases / corrosive gases	850.00
33-3002	Splash guard, SPG-1 for SD-1GP/GH/RI	54.00
33-3003	Splash guard, SPG-1OX for SD-1OX	54.00
33-3004	Splash guard, SPG-1EC for SD-1EC	52.00
81-1148	Calibration cup for SD-1GP/SD-1GH (except SD-1GH for NH3)	120.00
81-1148-NH3	Calibration cup for SD-1GP (NH3) / SD-1RI	120.00
81-1148-OX	Calibration cup for SD-1 with O2, CO, or H2S	390.00
81-1148-RIGH	Calibration cup for SD-1GH (NH3)/SD-1RI	120.00

Fixed Systems Sensors & Transmitters

SD-1 Calibration Kits

Instrument #	Cal-Kit Part #	Cal-Kit Description	Price
SD-1GH-H2	81-SD-1GH-H22K	Cal Kit, fixed for SD-1GP, 2000 ppm H2/Air 34L, reg, cal cup, case & tubing	550.00
SD-1GP-CH4	81-SD-1GP-CH4LV	Cal Kit, fixed for SD-1GP, 50% LEL CH4/Air 34L, reg, cal cup, case & tubing	420.00
SD-1GP-H2	81-SD-1GP-H2LV	Cal Kit, fixed for SD-1GP, 50% LEL H2/Air 34L, reg, cal cup, case & tubing	420.00
SD-1RI-IC4H10	81-SD-1RI-IBLV	Cal Kit, fixed for SD-1GP, 50% LEL isobutane/Air 34L, reg, cal cup, case & tubing	420.00
	81-SD1GPH2CO-LV	Cal Kit, fixed for SD-1GP, 50% LEL H2 in Air 34L, for SD-1EC, 50 ppm CO in Air 34L, reg, 2 cal cups, case & tubing	835.00



WASTEWATER GAS MONITORING SYSTEM

Gas Detection For Life

Explosion Proof Tri-Sensor Head



Features

- 3 Sensors, 1 explosion proof housing
- Infrared sensors available for combustible gases
- Interfaces with Beacon 410 controller
- Available for LEL, O₂, H₂S and CO
- Water repellent patented sensor coating
- Long life sensors (2 + years typical)
- Also available with 2 or 4 sensors

Applications

- Wet Wells
- Dry Wells
- Bar Screen
- Lift Station
- Digesters
- Thickeners
- Primary Clarifiers
- Pump Stations
- Confined Spaces

The RKI direct connect series gas sensors are highly reliable and very cost effective for the detection of common gas hazards. The direct connect series are available for LEL, Oxygen, H₂S, and CO for a variety of RKI's controllers. All sensors are explosion-proof with flame arrestors, and approved for use in hazardous locations.

The tri-sensor head can be used either indoors or outdoors. The flame arrestors for the explosion-proof versions utilize a patented coating which make them water repellent. Also, splash guards are available for use in very wet environments.

The unique tri-sensor design integrates 3 sensors into one explosion proof housing. This results in significant savings with installation and wiring cost versus traditional single sensor enclosures. Only one conduit needs to be run to the sensors.

The tri-sensor head is designed to exclusively interface with the RKI Beacon 410 controller. This 3 sensor head, used with the Beacon 410, is especially well suited for wastewater applications.

Also available in a two or four sensor version, with sensors for LEL, Oxygen, H₂S, and CO available.

IR (infrared) sensor versions available for LEL detection.

Explosion Proof Tri-Sensor Head

	LEL	LEL Infrared		O ₂	CO	H ₂ S
		CH ₄	HC			
Sensor Only	61-0140RK (UL) 61-0140RK-05 (CSA)	61-0190RK-CH4	61-0190RK-HC	65-2511RK (non xp) 65-2514RK (xp)	65-2433RK-05	65-2423RK-05
Measuring Range	0-100% LEL	0-100% LEL		0-25% Vol.	0-300 ppm	0-100 ppm
Response Time	30 seconds to 90%	30 seconds to 90%		20 seconds to 90%	30 second to 90%	
Operating Environment						
Location	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, and D atmospheres.					
Temperature	-40 ~ 185° F	-4 ~ 122° F		-4 ~ 113° F		
Humidity	0 - 99% RH non condensing					
Housing						
Housing J-Box	Cast aluminum, explosion-proof, epoxy coated					
Sensor	Stainless steel			Stainless steel	Stainless steel	
Sensor						
Type	Catalytic	Infrared		Galvanic cell	Electrochemical	
Life Expectancy	1 to 2 years with normal intermittent exposure to flammable gas	5 + years normal service		2 years normal service	2 to 3 years normal service	
Ordering Info	Part Numbers Description Part Numbers Description					
	65-2480RK-01 LEL catalytic / O ₂ / H ₂ S		65-2482RK-01 LEL (IR) / O ₂ / H ₂ S			
	65-2480RK-03 LEL catalytic / H ₂ S		65-2482RK-03 LEL (IR) / O ₂ / H ₂ S			
	65-2481RK LEL catalytic / O ₂ / H ₂ S / CO		65-2481RK-01 LEL (IR) / O ₂ / H ₂ S / CO			
	Note: Additional gas combinations and CSA versions available, please contact factory.					
Approvals	UL or CSA	UL		CSA NRTL		
Warranty	One year materials and workmanship					



Beacon 410 Controller

- Digitally display all channels with gas name & concentration
- 3 programmable alarm levels per channel
- Up to 3 programmable alarm relays per channel
- Smart system provides industry leading stability of operation
- 4-20 mA analog & Modbus digital output standard
- Weather proof NEMA 4X enclosure
- Accepts RKI direct connect sensors (4-20 transmitter not required)

Specifications subject to change without notice.

Made in the USA



Toll Free: (800) 754-5165 • Phone: (510) 441-5656
Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Specialty Products

Explosion Proof Multi Point Detector Assembly, Class I, Div. 1 Approved

ORDERING INFORMATION: All pricing includes the sensor and explosion proof housing.

Note: Use IR LEL versions for wastewater or sewage applications.



Part#	Description	Suggested Retail
65-2482RK-04	Multi-sensor, direct connection for IR LEL (CH4) / CO with j-box, UL version	1,400.00
65-2482RK-05	Multi-sensor, direct connection for IR LEL (CH4) / O2 / with j-box	1,400.00
65-2482RK-03	Multi-sensor, direct connection for IR LEL (CH4) / H2S with j-box, UL version	1,400.00
65-2482RK-02	Multi-sensor, direct connection for IR LEL (CH4) / O2 / CO with j-box, UL version	1,800.00
65-2481RK-01	Multi-sensor, direct connection for IR LEL (CH4) / O2 / H2S / CO with j-box	2,300.00
65-2482RK-01	Multi-sensor, direct connection for IR LEL (CH4) / O2 / H2S with j-box, UL version.....	1,800.00
65-2482RK-06	Multi-sensor, direct connection for IR LEL (CH4) / H2S / CO with j-box	1,800.00
65-2484RK-34	Multi-sensor, direct connection for IR LEL (CH4) / H2S / CO / NH3 with j-box (not explosion proof)	2,450.00
65-2483RK-04	Multi-sensor, direct connection for IR LEL (HC) / CO with j-box, UL version	1,400.00
65-2483RK-05	Multi-sensor, direct connection for IR LEL (HC) / O2 with j-box, UL version	1,400.00
65-2483RK-03	Multi-sensor, direct connection for IR LEL (HC) / H2S with j-box, UL version	1,400.00
65-2483RK-02	Multi-sensor, direct connection for IR LEL (HC) / O2 / CO with j-box, UL version	1,800.00
65-2483RK-06	Multi-sensor, direct connection for IR LEL (HC) / H2S / CO with j-box, UL version	1,800.00
65-2481RK-02	Multi-sensor, direct connection for IR LEL (HC) / O2 / H2S / CO with j-box	2,300.00
65-2483RK-01	Multi-sensor, direct connection for IR LEL (HC) / O2 / H2S with j-box, UL version	1,800.00
65-2480RK-54	Multi-sensor, direct connection for LEL (catalytic) / CO with j-box, CSA version	1,025.00
65-2480RK-04	Multi-sensor, direct connection for LEL (catalytic) / CO with j-box, UL version	975.00
65-2480RK-03	Multi-sensor, direct connection for LEL (catalytic) / H2S with j-box, UL version	975.00
65-2480RK-53	Multi-sensor, direct connection for LEL (catalytic) / H2S with j-box, CSA version	1,025.00
65-2480RK-52	Multi-sensor, direct connection for LEL (catalytic) / O2 / CO with j-box, CSA version	1,400.00
65-2480RK-02	Multi-sensor, direct connection for LEL (catalytic) / O2 / CO with j-box, UL version	1,300.00
65-2481RK	Multi-sensor, direct connection for LEL (catalytic) / O2 / H2S / CO with j-box.....	1,900.00
65-2480RK-01	Multi-sensor, direct connection for LEL (catalytic) / O2 / H2S with j-box, UL version	1,300.00
65-2480RK-51	Multi-sensor, direct connection for LEL (catalytic) / O2 / H2S with j-box, CSA version	1,400.00
65-2480RK-05	Multi-sensor, direct connection for LEL (catalytic) / H2S / CO with j-box, CSA version	1,400.00
65-2484RK-06	Multi-sensor, direct connection for LEL (catalytic) / O2 / H2S / SO2 with j-box (not explosion proof) ...	2,000.00
65-2485RK-02	Multi-sensor, direct connection for H2S / O2 / CO with j-box, UL version	1,450.00

Wet Well Package

Part#	Description	Suggested Retail
72-2104A-WW1	Wet Well Package with Beacon 410A controller, tri-head IR LEL (HC) / O2 / H2S, and IR CH4 direct connect (for ceiling mounting)	5,250.00
72-2104A-WW2	Wet Well Package with Beacon 410A controller, tri-head IR LEL (CH4) / O2 / H2S	4,000.00
61-1003RKSS-CH4	Sensor, IR, Methane (CH4) 0 - 100% LEL, explosion proof with stainless steel j-box, UL version	950.00



Beacon 410A



Remote mount LEL IR for mounting sensor high with -WW1 wet well package.



INTELLIGENT GAS DETECTOR

Gas Detection For Life

GD-70D Series



Features

- Monitor combustibles, O₂, and a wide range of toxics
- Plug and play intelligent sensors retain calibration and sensor data
- Common platform (main unit / sensor / pump) for all detection methods
- Universal main unit (all sensor types)
- Multifunctional sensor unit (new Intelligent sensor)
- No internal tubing (main unit) / No coil (pump)
- Front access, no tools required, easy sensor and pump replacement
- Large size LCD screen
- Various communication methods available (4-20mA, LonWorks, and PoE)
- Minimal maintenance cost through enhanced troubleshooting firmware functions
- Small mounting space
- Environmentally friendly
- Wide variety of sensors available

The new Model GD-70D smart gas detection transmitter series sets a new standard for performance, flexibility, and versatility. The GD-70D sample-draw transmitter offers an array of sensor technologies unmatched in the industry, including unique offerings, such as our hydrogen-specific or LEL versions.

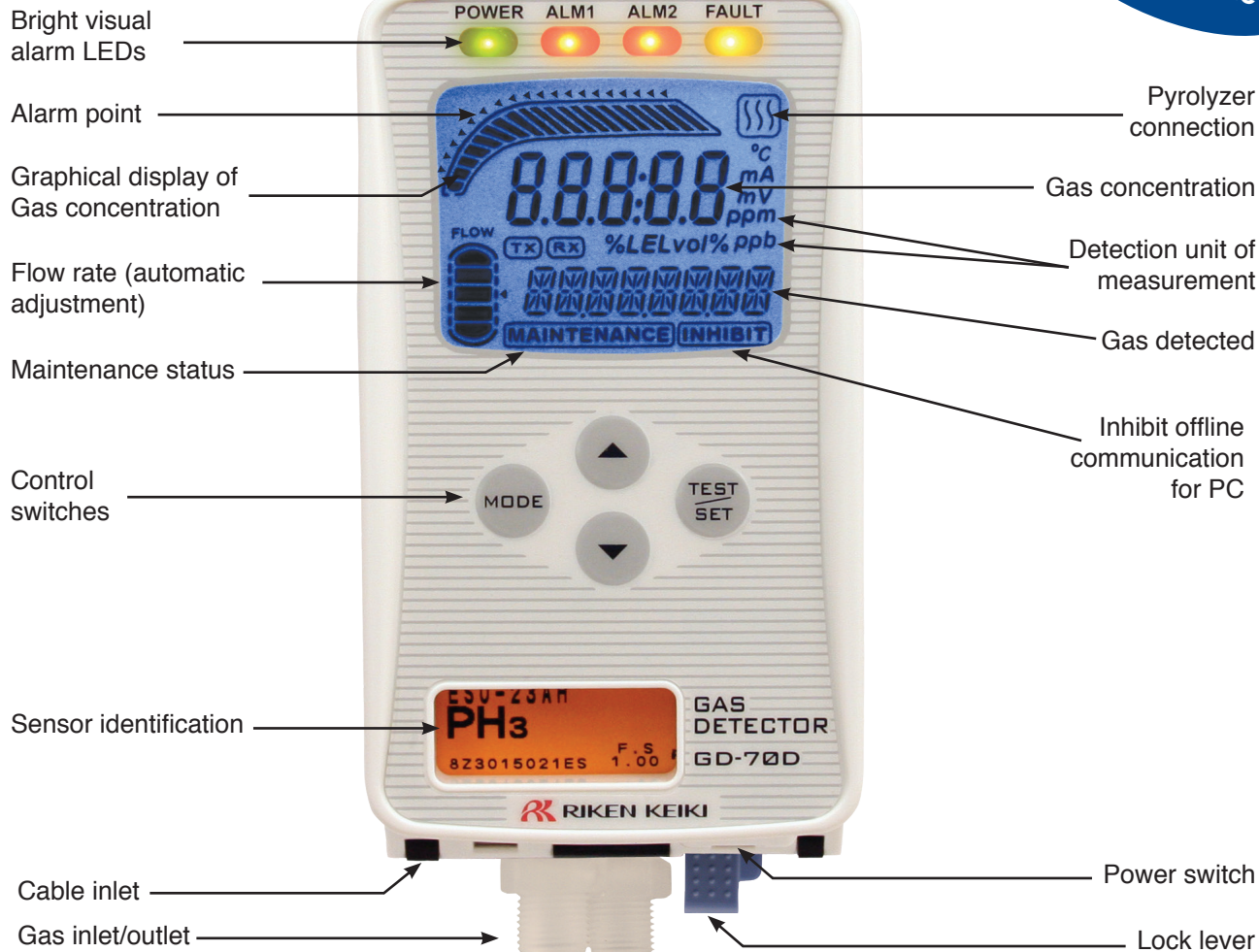
The long life high capacity pump and wide variety of sensing elements are replaceable in a few seconds, with no tools required! The smart sensors retain all calibration and sensor-specific data in non-volatile memory, so sensors can be hot-swapped in the field with no programming required. The sensors also retain calibration information, which means they can be conveniently calibrated separate from the transmitter, avoiding transport of calibration gases to field locations. The GD-70D firmware automatically corrects for long-term zero and span "drift" minimizing maintenance and maximizing reliability.

The GD-70D can be used as a stand-alone device, offering a number of communication protocols to existing PLC systems, or can be integrated with RKI's Beacon series of single and multi-channel controllers.

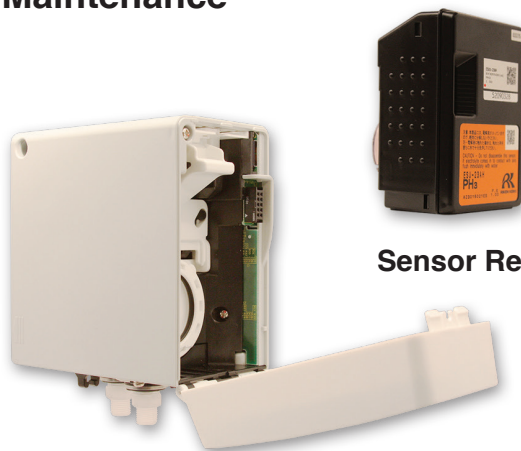
All GD-70D transmitters include a large, easy to read integral LCD display, tri-color bar graph for visual notification of alarm status, programmable low and high alarm relays, and fault relay. Pump flow is self-tuning for maintenance-free operation. Because all GD-70D base units are identical, sensors can be interchanged with no programming or tools required, resulting in maximum flexibility to the user. NEMA 4X 115 VAC versions available.

GD-70D Series

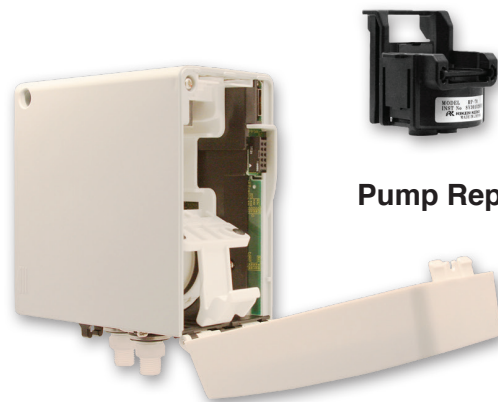
Actual Size



Tool Free Maintenance



Sensor Replacement



Pump Replacement

Specifications subject to change without notice.

MAIN UNIT			
Model	GD-70D	GD-70D-NT	GD-70D-ET
Communication	4-20mA DC	DC power line communication	PoE method
Detection principle	Different type depending upon sensor unit and detectable gas (see table)		
Sampling method	Sample draw (auto-adjustment of flow rate) 0.5 L / min +/-10%		
Display	• Large LCD display (white backlight) • Flow rate, communication status, pyrolyzer status, gas detected		• Gas concentration • Error code, content of error
Gas alarms	Two alarm levels: 1st alarm - Red	2nd alarm - Red	Fault alarm - Yellow
External output	1st, 2nd, and trouble alarms: Relay contact output for each alarm		
Self diagnostic function	System failure, sensor failure, flow failure, communication error NT / ET / Analog		
Datalogging	Event history, alarm history, calibration history. Alarm trend (180 sec before / after 1st alarm)		
Operation temp. & humidity	0 ~ 40°C, 30 ~ 70% RH (non-condensing)		
Operating settings	All operational settings are user adjustable through front panel		
Power requirements	DC 24V+/- 10%, approx 1.5W (Max 4W including sensor unit) Note: Approx. 2.5W (Max 5W) with SGU sensor unit		PoE standard arrangement
Dimensions	2.8"W x 4.7"H x 5.9"D (70W x 120H x 150Dmm)		
Weight	Approx. 0.9kg (2.0lbs), including sensor unit		
Mounting	Wall-mounting base plate by 2 or 3 screws		
Sampling tubing	4 x 6mm PTFE tubing recommended. Tube fittings provided as standard accessories		
Bushing	Cable type varies depending on communication method (Cable bushing optional)		

SENSOR UNIT				
Model	ESU	SGU	SSU	NCU
Detection principle	Electrochemical cell	Semiconductor	Pyrolysis-particle	Catalytic combustion
Gas detected and detection range	Refer to list of detectable gases	0-2000ppm H ₂ , CH ₄ , or CH ₂ F ₂ (R-32) in air and others	0-15ppm TEOS in air	0-100% LEL H ₂ , CH ₄ , and others
Self diagnosis function	Sensor trouble, system failure			
Date logging function	Event history, alarm history, calibration history, Alarm trend (60 sec. before/after 1st alarm)			

PYROLYZER UNIT	
Model	PLU-70
Application	NF ₃ / TEOS gases detected in air
Usage	Used by connecting to "GD-70D" (Main unit)
Power Lamp	LED (Green color) Normal: Light-on Warming-up: Flashing at every 1 sec interval Trouble: Flashing at every 0.2 sec interval
Self-diagnostic function	Pyrolyzer unit trouble Fan trouble System trouble
Operating temp. & humidity	0-40° C, 30-70% RH (non-condensing)
Operational settings	All operational settings are user adjustable through front panel
Power requirements	DC 24V+/- 10%, approx. 25W (max)
Dimensions	2.8"W x 4.7"H x 5.9"D (70W x 120H x 150Dmm)
Weight	Approx. 1.2kg (2.6lbs)
Mounting	Wall-mounting base plate by 2 or 3 screws
Sampling	4x6mm PTFE tubing recommended. Tube fittings provided as standard accessories
Bushing	1.25sq 2 core cable for power supply DC24V (Cable bushing optional)

GD-70D Series

ESU Gas Detected		Detection Range	ACGIH TLV-TWA	Part #
Ammonia	NH3	75 ppm	25 ppm	GD-70D-NH3
Arsine	AsH3	0.2 ppm	5 ppb	GD-70D-ASH3
Boron Trichloride	BCl3	15 ppm		GD-70D-BCl3
Boron Trifluoride	BF3	9 ppm	0.1 ppm	GD-70D-BF3
Bromine	BR2	1 ppm	0.1 ppm	GD-70D-BR2
Carbon Monoxide	CO	75 ppm * 150 ppm 300 ppm *	25 ppm	GD-70D-CO-01/02/03/11/12/13
Chlorine	Cl2	3 ppm 1.5 ppm *	0.5 ppm	GD-70D-Cl2
Chlorine Trifluoride	ClF3	0.6 ppm	(C) 0.1 ppm	GD-70D-ClF3-A
Diborane	B2H6	0.3 ppm	0.1 ppm	GD-70D-B2H6
Dichlorosilane	DCS	15 ppm		GD-70D-DCS
Disilane	Si2H6	15 ppm	(C) 2 ppm	GD-70D-Si2H6
Dimethylamine	(CH3)2NH	15 ppm	5 ppm	GD-70D-DMA
Diethylamine	(CH3CH2)2NH	15 ppm	5 ppm	GD-70D-DEA
Fluorine	F2	3 ppm	1 ppm	GD-70D-F2
Germane	GeH4	0.8 ppm	(C) 2 ppm	GD-70D-GeH4
Hydrogen Bromide	HBr	6 ppm, 9 ppm *	(C) 2 ppm	GD-70D-HBR-06/-09
Hydrogen Chloride	HCl	6 ppm, 15 ppm *	(C) 2 ppm	GD-70D-HCL-06E/15E
Hydrogen Cyanide	HCN	15 ppm	1 ppm	GD-70D-HCN
Hydrogen Fluoride	HF	9 ppm, 3 ppm *	0.5 ppm	GD-70D-HF-03/-09
Hydrogen Peroxide	H2O2	3 ppm		GD-70D-H2O2
Hydrogen Selenide	H2Se	0.2 ppm	0.05 ppm	GD-70D-H2Se
Hydrogen Sulfide	H2S	1 ppm 30 ppm	1 ppm	GD-70D-H2S-01/-30
Methylamine	CH3NH2	15 ppm	5 ppm	GD-70D-CH3NH2
Nitric Oxide	NO	100 ppm	25 ppm	GD-70D-NO
Nitrogen Dioxide	NO2	9 ppm 15 ppm	3 ppm	GD-70D-NO2-09
Nitrogen Tetraoxide	N2O4	15 ppm		GD-70D-N2O4
Nitrogen Trifluoride	NF3	30 ppm	10 ppm	GD-70D-NF3
Oxygen	O2	25% Vol.	—	GD-70D-OXY-EC
Ozone	O3	0.6 ppm	0.1 ppm	GD-70D-O3
Phosphine	PH3	1 ppm	0.3 ppm	GD-70D-PH3-AH
Silane	SiH4	15 ppm	5 ppm	GD-70D-SiH4-AH/DH
Silicon Tetrachloride	SiCl4	15 ppm		GD-70D-SiCl4
Silicon Tetrafluoride	SiF4	9 ppm		GD-70D-SiF4
Sulfur Dioxide	SO2	6 ppm	—	GD-70D-SO2
Sulfur Tetrafluoride	SF4	9 ppm		GD-70D-SF4
Tetraethyl Orthosilicate	TEOS	15 ppm		GD-70D-TEOS
Trichlorosilane	TCS	15 ppm		GD-70D-TCS
Trimethylamine	(CH3)3N	15 ppm	5 ppm	GD-70D-TMA

SGU Gas Detected		Detection Range	ACGIH TLV-TWA	Part #
Carbonyl Sulfide	COS	2,000 ppm	—	GD-70D-MCOS
Dichloroethene	C2H2CL2	600 ppm	200 ppm	GD-70D-MC2H2CL2
Dichlorethylene	DCE	600 ppm		GD-70D-MDCE
Dichloromethane	CH2CL2	2,000 ppm	50 ppm	GD-70D-MDCM
Difluoromethane	R-32	2,000 ppm	1,000 ppm	GD-70D-MR32
Fluoro Methane	R-41	2,000 ppm	1,000 ppm	GD-70D-MR41
Hydrogen	H2	500 ppm * 1,000 ppm * 2,000 ppm 2% Vol.	—	GD-70D-MH2-S500 GD-70D-MH2-S1K GD-70D-MH2-S2K GD-70D-MH2-20K
Isopropyl Alcohol	CH3CHOHCH3	2,000 ppm	200 ppm	GD-70D-MIPA-2K
Methane	CH4	2,000 ppm 5,000 ppm *	—	GD-70D-MCH4-2K GD-70D-MCH4-5K GD-70D-MCH4-20K GD-70D-MCH3OH-1 GD-70D-MCH3OH-2
Methyl Alcohol	CH3OH	1,000 ppm 2,000 ppm *	200 ppm	GD-70D-MCH3CH
Propane	CH3H8	2,000 ppm 5,000 ppm *	1,000 ppm	GD-70D-MC3H8-2K GD-70D-MC3H8-2K
NCU Gas Detected		Detection Range	LEL % Vol. Levels	
Hydrogen	H2	100% LEL	—	GD-70D-LEL-H2
Hydrogen	H2	2% Vol.	—	GD-70D-H2-20K
Isobutane	i-C4H10	100% LEL	—	GD-70D-ISOB
Methane	CH4	100% LEL	—	GD-70D-LEL-CH4
Methane	CH4	2% Vol.	—	GD-70D-CH4-20K
SSU Gas Detected		Detection Range	ACGIH TLV-TWA	
Trimethyl Silane	TMS	15 ppm	—	GD-70D-TMS
Trimethoxysilane	TRIMOS	15 ppm	—	GD-70D-TRIMOS
Tetraethyl Orthosilicate	TEOS	15 ppm	10 ppm	GD-70D-TEOS

Sensor accuracy= +/- 10% of reading or +/- 5% of full scale, whichever is greater.

* Special order for non-standard range



Toll Free: (800) 754-5165 • Phone: (510) 441-5656
Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Sensors & Transmitters

GD-70D Sample Drawing Sensor / Transmitter For Toxic Gases

4-20 mA & Ethernet Output Standard

Part#	Description	Suggested Retail
GD-70DEA-LELCH4	Smart transmitter, GD-70D for Methane (CH4), 0-100% LEL, with ethernet and 4-20 mA outputs	1,495.00
GD-70DEA-LEL-H2	Smart transmitter, GD-70D for Hydrogen (H2), 0-100% LEL, with ethernet and 4-20 mA outputs	1,495.00
GD-70DEA-MX-XXX	Smart transmitter, GD-70D with MOS (Metal Oxide Sensor), with ethernet and 4-20 mA outputs (specify gas & range)	1,595.00
GD-70DEA-OXY-EC	Smart transmitter, GD-70D for Oxygen (O2), 0-25% Vol. with ethernet & 4-20 mA outputs, with EC sensor	1,695.00
GD-70DEA-IRU-N2O	Smart transmitter, GD-70D for Nitrous Oxide (N2O), 0-500 ppm, with ethernet and 4-20 mA outputs	3,800.00
GD-70DEA-XXX	Smart transmitter, GD-70D toxic gas monitor with ethernet and 4-20 mA outputs, (XXX denotes the gas, check the chart below)	1,595.00
GD-70DEA-NS	Smart transmitter, GD-70D toxic gas monitor without sensor, with ethernet & 4-20 mA outputs	1,100.00
PLU-70	Pyrolyzer unit only for GD-70D	955.00
TP-70DG2-C4F6	Smart transmitter, GD-70D for Hexafluorobutadiene (C4F6), 0-5.00 ppm	8,200.00
TP-70DG2-C5F8	Smart transmitter, GD-70D for Octafluorocyclopentene (C5F8), 0-5 ppm	8,200.00
TP-70DG2-COS	Smart transmitter, GD-70D for Carbonyl Sulfide (COS), 0-15.0 ppm	8,200.00



GD-70D Toxic Gases & Ranges		
Measurable Gases	Range	Part #
Ammonia	75 ppm	GD-70DEA-NH3
Arsine	0.2 / 1.5 ppm	GD-70DEA-ASH3
Boron Trichloride	15 ppm	GD-70DEA-HCL *
Boron Trifluoride	9 ppm	GD-70DEA-HF *
Bromine	1 ppm	GD-70DEA-BR2
Carbon Monoxide	75 ppm (ESU-23)	GD-70DEA-CO-02
Carbon Monoxide	75 ppm (ESU-231)	GD-70DEA-CO-12
Carbon Monoxide	150 ppm (ESU-23)	GD-70DEA-CO-01
Carbon Monoxide	150 ppm (ESU-231)	GD-70DEA-CO-11
Carbon Monoxide	300 ppm (ESU-23)	GD-70DEA-CO-03
Carbon Monoxide	300 ppm (ESU-231)	GD-70DEA-CO-13
Chlorine	3 ppm	GD-70DEA-CL2
Chlorine Trifluoride	0.6 ppm	GD-70DEA-CLF3-A
Diborane	0.3 ppm	GD-70DEA-B2H6
Dichlorosilane	15 ppm	GD-70DEA-HCL *
Diethylamine	15 ppm	GD-70DEA-DEA
Dimethylamine	15 ppm	GD-70DEA-DMA
Disilane	15 ppm	GD-70DEA-Si2H6
Fluorine	3 ppm	GD-70DEA-F2
Germane	0.8 ppm	GD-70DEA-GEH4
Hydrogen Bromide	6 / 9 ppm	GD-70DEA-HBR-06 / -09
Hydrogen Chloride	6 / 15 ppm	GD-70DEA-HCL-06E / 15E
Hydrogen Cyanide	15 ppm	GD-70DEA-HCN
Hydrogen Fluoride	9 ppm	GD-70DEA-HF-03 / -09
Hydrogen Peroxide	3 ppm	GD-70DEA-H2O2
Hydrogen Selenide	0.2 ppm	GD-70DEA-H2SE
Hydrogen Sulfide	1 / 30 ppm	GD-70DEA-H2S-01 / -30
Nitric Oxide	100 ppm	GD-70DEA-NO
Nitrogen Dioxide	9 / 15 ppm	GD-70DEA-NO2-09 / -15
Nitrogen Tetraoxide	15 PPM	GD-70DEA-N2O4
Ozone	0.6 ppm	GD-70DEA-O3
Phosphine	1 ppm (ESU-23AH)	GD-70DEA-PH3-AH
Phosphine	1 ppm (ESU-23DH)	GD-70DEA-PH3-DH
Silane	15 ppm (ESU-23AH)	GD-70DEA-SiH4-AH
Silane	15 ppm (ESU-23DH)	GD-70DEA-SiH4-DH
Silicon Tetrachloride	15 ppm	GD-70DEA-HCL *
Silicon Tetrafluoride	9 ppm	GD-70DEA-HF
Sulfur Dioxide	6 ppm	GD-70DEA-SO2
Sulfur Tetrafluoride	9 ppm	GD-70DEA-HF *
Tetraethyl Orthosilicate	15 ppm	GD-70DEA-TEOS
Trichlorosilane	15 ppm	GD-70DEA-HCL *
Trimethylamine	15 ppm	GD-70DEA-TMA
Tungsten Hexafluoride	9 ppm	GD-70DEA-HF *

* Gas measured after hydrolysis

GD-70D MOS Gases & Ranges		
Measurable Gases	Range	Part #
1,1 Dichloroethylene (DCE)	600 ppm	GD-70DEA-MDCE
Dichloromethane (DME)	2,000 ppm	GD-70DEA-MDCM
Hydrogen	500 ppm	GD-70DEA-MH2-S500
Hydrogen	1,000 ppm	GD-70DEA-MH2-S1K
Hydrogen	2,000 ppm	GD-70DEA-MH2-S2K
Hydrogen	2% vol	GD-70DEA-MH2-20K
Isopropyl Alcohol	2,000 ppm	GD-70DEA-MIPA-2K
Methane	2,000 ppm	GD-70DEA-MCH4-2K
Methane	5,000 ppm	GD-70DEA-MCH4-5K
Methane	2% vol	GD-70DEA-MCH4-20K
Methanol	1,000 ppm	GD-70DEA-MCH3OH-1
Methanol	2,000 ppm	GD-70DEA-MCH3OH-2
Propane	2,000 ppm	GD-70DEA-MC3H8-2K
Propane	5,000 ppm	GD-70DEA-MC3H8-5K
R-32	2,000 ppm	GD-70DEA-MR32
R-41	2,000 ppm	GD-70DEA-MR41

GD-70D LEL (catalytic) & O2 Gases & Ranges		
Measurable Gases	Range	Part #
Hydrogen	100% LEL	GD-70DEA-LEL-H2
Hydrogen	2% vol	GD-70DEA-H2-20K
Isobutane	100% LEL	GD-70DEA-ISOB
Methane	100% LEL	GD-70DEA-LEL-CH4
Methane	2% vol	GD-70DEA-CH4-20K
Oxygen	25% vol	GD-70DEA-OXY-EC

GD-70D Toxic (infrared) Gas & Range		
Measurable Gases	Range	Part #
Nitrous Oxide	500 ppm	GD-70DEA-IRU-N2O

GD-70D with Pyrolyzer



Fixed Systems Sensors & Transmitters

GD-70D Sample Drawing Sensor / Transmitter with NEMA 4X Enclosure

GD-70D with NEMA 4X Versions

Part#	Description	Suggested Retail
GD-70D4X-LCH4	Smart transmitter, GD-70D for Methane (CH ₄), 0-100% LEL, with ethernet and 4-20 mA output in NEMA 4X housing.....	1,895.00
GD-70D4X-LH220K	Smart transmitter, GD-70D for Hydrogen (H ₂), 0-2.00% Vol., with ethernet and 4-20 mA output in NEMA 4X housing.....	1,895.00
GD-70D4X-OXY-EC	Smart transmitter, GD-70D for Oxygen (O ₂), 0-25% Vol. with ethernet and 4-20 mA output, with EC sensor in NEMA 4X housing	2,095.00
GD-70D4X-XXX	Smart transmitter, GD-70D toxic gas monitor with ethernet and 4-20 mA output in NEMA 4X housing (XXX denotes the gas)	1,995.00



GD-70D with NEMA 4X & Power Supply Versions

Part#	Description	Suggested Retail
GD-70D4A-LCH4	Smart transmitter, GD-70D for Methane (CH ₄), 0-100% LEL, with 115/220 VAC in NEMA 4X housing	1,995.00
GD-70D4A-LH2	Smart transmitter, GD-70D for Hydrogen (H ₂), 0-100% LEL, with 115/220 VAC in NEMA 4X housing	1,995.00
GD-70D4A-OXY-EC	Smart transmitter, GD-70D for Oxygen (O ₂), 0-25% Vol., 110/220 VAC, with EC sensor in NEMA 4X housing	2,195.00
GD-70D4A-XXX	Smart transmitter, GD-70D toxic gas monitor with 110/220 VAC, in NEMA 4X housing (XXX denotes the gas)	2,095.00

GD-70D with NEMA 4X & Strobe Versions

Part#	Description	Suggested Retail
GD-70D4S-LCH4	Smart transmitter, GD-70D for Methane (CH ₄), 0-100% LEL, 115/220 VAC in NEMA 4X housing with strobe	2,095.00
GD-70D4S-LH2	Smart transmitter, GD-70D for Hydrogen (H ₂), 0-100% LEL, 115/220 VAC in NEMA 4X housing with strobe	2,095.00
GD-70D4S-OXY-EC	Smart transmitter, GD-70D for Oxygen (O ₂), 0-25% Vol., 110/220 VAC, EC sensor, in NEMA 4X housing with strobe	2,295.00
GD-70D4S-XXX	Smart transmitter, GD-70D toxic gas monitor, 110/220 VAC, in NEMA 4X housing with strobe (XXX denotes the gas)	2,195.00

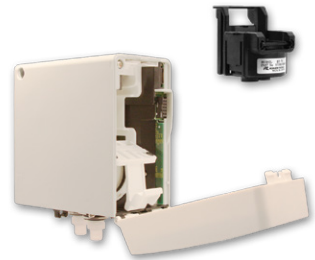
GD-70D with NEMA 4X, Horn, Strobe & Power Supply Versions

Part#	Description	Suggested Retail
GD-70D4H-LISOB	Smart transmitter, GD-70D for Isobutane (CH ₃), 0-100% LEL, 115/220 VAC in NEMA 4X housing, with horn and strobe	2,550.00
GD-70D4H-LEL-H2	Smart transmitter, GD-70D for Hydrogen (H ₂), 0-100% LEL, 115/220 VAC in NEMA 4X housing, with horn and strobe	2,350.00
GD-70D4H-OXY-EC	Smart transmitter, GD-70D for Oxygen (O ₂), 0-25% Vol., 110/220 VAC, EC sensor, in NEMA 4X housing, with horn and strobe	2,550.00
GD-70D4H-XXX	Smart transmitter, GD-70D toxic gas monitor, 110/220 VAC, in NEMA 4X housing, with horn and strobe (XXX denotes the gas)	2,450.00

Fixed Systems Sensors & Transmitters

GD-70D Replacement Parts & Accessories

Part#	Description	Suggested Retail
06-1272RK	Tubing, teflon, 6x4mm, PTFE	6.50
06-1275	Tubing, Teflon, PTFE, 1/4 inch OD x 5/32 inch ID	6.50
17-2500RK-01	Nut/ferrule/4x6 tube for GD-70D fitting	5.00
30-1020RK	Pump, RP-70 for GD-70D	55.00
31-1011-01	Flow sensor for GD-70D	120.00
33-0165RK-01	Filter, Millipore, PTFE, disc type, hydrophobic with tubing, EAGLE, Fixed Systems	27.00



GD-70D Replacement Catalytic / Oxygen / TEOS Sensors

Part#	Description	Suggested Retail
ESU-X23F-OXY	Smart transmitter, GD-70D for Oxygen (O2), 0-25% with EC sensor	595.00
NCU-6211	Sensor, combustibles, 0-100% LEL, sensor unit	395.00
NCU-6213-CH4	Sensor, Methane (CH4) 0-100% LEL, sensor unit	395.00
SSU-1925-A	Sensor, ionization, GD-70D (Need to specify gas type & range)	495.00
SSU-1927	Sensor, TEOS 0-15 ppm, ionization sensor unit.....	495.00



GD-70D Replacement EC Toxic Sensors

Part#	Description	Suggested Retail
ESU-23R-NH3	Sensor, Ammonia (NH3), 0-75 ppm, sensor/amp unit for GD-70D	495.00
ESU-C23F-S-ASH3	Sensor, Arsine (AsH3), 0-50 ppb, sensor/amp unit for GD-70D	900.00
ESU-C23F-ASH3	Sensor, Arsine (AsH3), 0-0.20 ppm, sensor/amp unit for GD-70D	495.00
ESU-K233-BR2	Sensor, Bromine (Br2), 0-1.0 ppm, sensor/amp unit for GD-70D	495.00
ESU-23RVM-BTBAS	Sensor, BTBAS (C8H22NSi), 0-15.00 PPM, for GD-70D	495.00
ESU-23-CO-150	Sensor, Carbon Monoxide (CO), 0-150 ppm, sensor/amp unit for GD-70D	495.00
ESU-237IF-COS	Sensor, Carbonyl Sulfide (COS), 0-15.0 ppm for TP-70DGII	495.00
ESU-K235-CL2-3	Sensor, Chlorine (Cl2), 0-3.0 ppm, sensor/amp unit for GD-70D	495.00
ESU-K235L-CL2-3	Sensor, Chlorine (Cl2), 0-3.00 PPM, sensor/amp unit for GD-70D, for low-humidity applications	495.00
ESU-K233CS-CLFA	Sensor, Chlorine Trifluoride (ClF3), 0-0.60 ppm, sensor/amp unit for GD-70D	495.00
ESU-K253-COF2	Sensor, Cobalt Difluorine (COF2), 0-6.00 ppm for GD-70D	495.00
ESU-23AY-B2H6	Sensor, Diborane (B2H6), 0-0.30 ppm, sensor/amp unit for GD-70D	495.00
ESU-23RVM-DEA	Sensor, Diethylamine (C2H5)2NH, 0-15.00 ppm, sensor/amp unit for GD-70D	495.00
ESU-23RVM-DMA	Sensor, Dimethylamine (CH3)2NH, 0-15.00 ppm, sensor/amp unit for GD-70D	495.00
ESU-23DH-Si2H6	Sensor, Disilane (Si2H6), 0-15 ppm, sensor/amp unit for GD-70D (with H2 response)	495.00
ESU-K235-F2-3	Sensor, Fluorine (F2), 0-3.0 ppm, sensor/amp unit for GD-70D	495.00
ESU-K233M-HCOOH	Sensor, Formic Acid (HCOOH), 0-15.0 ppm for GD-70D	495.00
ESU-23DH-GEH4	Sensor, Germane (GeH4), 0-0.80 ppm, sensor/amp unit for GD-70D	495.00
ESU-K235L-C4F6	Sensor, Hexafluorobutadiene (C4F6), 0-5.0 ppm for TP-70DII	495.00
ESU-23E-N2H4	Sensor, Hydrazine (N2H4), 0-5.00 ppm, sensor/amp unit for GD-70D	495.00
ESU-23E-HBR-06	Sensor, Hydrogen Bromide (HBr), 0-6.00 ppm, sensor/amp unit for GD-70D	495.00
ESU-23E-HBR-09	Sensor, Hydrogen Bromide (HBr), 0-9.00 ppm, sensor/amp unit for GD-70D	495.00
ESU-23E-HCL-15	Sensor, Hydrogen Chloride (HCl), 0-15 ppm, sensor/amp unit for GD-70D (standard range)	495.00
ESU-23E-HCL-06	Sensor, Hydrogen Chloride (HCl), 0-6.00 ppm, sensor/amp unit for GD-70D	495.00
ESU-23DH-HCN	Sensor, Hydrogen Cyanide (HCN), 0-15 ppm, sensor/amp unit for GD-70D	495.00
ESU-K233-HF-09	Sensor, Hydrogen Fluoride (HF), 0-9.0 ppm, sensor/amp unit for GD-70D	495.00
ESU-23SD-H2SE	Sensor, Hydrogen Selenide (H2Se), 0-0.20 ppm, sensor/amp unit for GD-70D	495.00
ESU-237IF-H2S30	Sensor, Hydrogen Sulfide (H2S), 0-30 ppm, sensor/amp unit for GD-70D	495.00
ESU-23RVM-MMTA	Sensor, Methylamine (CH3NH2), 0-15 ppm, sensor/amp unit for GD-70D	495.00
ESU-K233-HNO3	Sensor, Nitric Acid (HNO3), 0-20.0 ppm, sensor/amp unit for GD-70D	495.00
ESU-23A-NO	Sensor, Nitric Oxide (NO), 0-100 ppm, sensor/amp unit for GD-70D	495.00
ESU-23AR-NO2-15	Sensor, Nitrogen Dioxide (NO2), 0-15 ppm, sensor/amp unit for GD-70D	495.00
ESU-23AR-NO2-09	Sensor, Nitrogen Dioxide (NO2), 0-9 ppm, sensor/amp unit for GD-70D	495.00
ESU-23AH-D-NF3	Sensor, Nitrogen Trifluoride (NF3), 0-30 ppm, sensor/amp unit for GD-70D	495.00
ESU-K235L-C5F8	Sensor, Octafluorocyclopentene (C5F8), 0-5 ppm sensor/amp unit for GD-70D	495.00
ESU-K239C-S-O3	Sensor, Ozone (O3), 0-0.60 ppm, sensor/amp unit for GD-70D	495.00
ESU-K239C-S-O31	Sensor, Ozone (O3), 0-1.00 ppm, sensor/amp unit for GD-70D	495.00

Fixed Systems Sensors & Transmitters

GD-70D Replacement EC Toxic Sensors (continued)

Part#	Description	Suggested Retail
ESU-23AH-PH3	Sensor, Phosphine (PH ₃), 0-1.0 ppm, sensor/amp unit for GD-70D (no H ₂ response)	495.00
ESU-23DH-PH3	Sensor, Phosphine (PH ₃), 0-1.0 ppm, sensor/amp unit for GD-70D (with H ₂ response)	495.00
ESU-23AH-SiH ₄	Sensor, Silane (SiH ₄), 0-15 ppm, sensor/amp unit for GD-70D (no H ₂ response)	495.00
ESU-23DH-SiH ₄	Sensor, Silane (SiH ₄), 0-15 ppm, sensor/amp unit for GD-70D (with H ₂ response)	495.00
ESU-238-SO ₂	Sensor, Sulfur Dioxide (SO ₂), 0-6.0 ppm, sensor/amp unit for GD-70D	495.00
ESU-23RVM-TMA	Sensor, Trimethylamine ((CH ₃) ₃ N), 0-15 ppm, sensor/amp unit for GD-70D	495.00
ESU-23DH-TSA	Sensor, Trisilylamine (SiH ₃ N), 0-15.0 ppm for GD-70D	495.00

GD-70D Replacement MOS Sensors

Part#	Description	Suggested Retail
SGU-8511-C3H ₆ -2	Sensor, Propylene (C ₃ H ₆), 0 - 2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8511-C3H ₆ -5	Sensor, Propylene (C ₃ H ₆), 0 - 5000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8511-C3H ₈ -2	Sensor, Propane (C ₃ H ₈), 0 - 2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8511-C3H ₈ -5	Sensor, Propane (C ₃ H ₈), 0 - 5000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8511-CH ₄ -20	Sensor, Methane (CH ₄), 0-2.0% vol, MOS sensor/amp unit for GD-70D	495.00
SGU-8511-CH ₄ -5K	Sensor, Methane (CH ₄), 0 - 5000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8511-H ₂ -20K	Sensor, Hydrogen (H ₂), 0-2.0% vol, MOS sensor/amp unit for GD-70D	495.00
SGU-8513-DCE-6	Sensor, Dichloroethene (C ₂ H ₂ Cl ₂), 0 - 600 ppm, MOS sensor/amp unit for GD-70D	600.00
SGU-8521-ACE-1K	Sensor, Acetone (C ₃ H ₆ O), 0-1000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-C ₂ H ₂ -2	Sensor, Acetylene (CH ₂ H ₂), 0 - 2,000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-C ₂ H ₄ -2	Sensor, Ethylene (CH ₂ H ₄), 0 - 2,000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-C ₄ F ₆ A	Sensor, Hexafluorobutadiene (C ₄ F ₆), 0 - 200 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-CH ₃ CN	Sensor, Acetonitrile (CH ₃ CN), 0 - 2,000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-H ₂ -1K	Sensor, Hydrogen (H ₂), 0-1000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-H ₂ -500	Sensor, Hydrogen (H ₂), 0 - 500 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-IPA-2K	Sensor, Isopropylalcohol (CH ₃ CHOHCH ₃), 0-2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-MET-1K	Sensor, Methanol (CH ₃ OH), 0-1000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-MET-2K	Sensor, Methanol (CH ₃ OH), 0-2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-R32-2K	Sensor, Difluoromethane (CH ₂ F ₂), 0-2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-R32-9K	Sensor, Difluoromethane (CH ₂ F ₂), 0-9000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8521-R41-2K	Sensor, Fluoromethane (CH ₃ OH), 0-2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8523-DCM-2K	Sensor, Dichloromethane (DCM), 0-2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8541-H ₂ -1K	Sensor, Hydrogen (H ₂), 0-1000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8541-H ₂ -2K	Sensor, Hydrogen (H ₂), 0-2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8541-H ₂ -4K	Sensor, Hydrogen (H ₂), 0-4000 ppm, MOS sensor/amp unit for GD-70D	600.00
SGU-8541-H ₂ -500	Sensor, Hydrogen (H ₂) specific, 0 - 500 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8562-COS-2K	Sensor, Carbonyl sulfide (COS), 0 - 2000 ppm, MOS sensor/amp unit for GD-70D	495.00
SGU-8581-CH ₄ -2K	Sensor, Methane (CH ₄), 0-2000 ppm, MOS sensor/amp unit for GD-70D	495.00

Notes

- Consult factory for additional PPM ranges available.



DIGESTER GAS MONITOR

Monitor for Gases Produced by Digester Process



Features

- **Corrosion resistant design**
 - Housing designed for extreme environments
 - Internal construction for extreme samples
 - Flow system designed to handle corrosive wet samples
- **Sample system designed to handle high humidity**
- **Accurately measures gases with high levels of H₂S present**
- **100 ft. sample range**
- **Up to 4 sensors:**
 - Methane 0 - 100% Volume
 - CO₂ 0 - 50% Volume
 - Oxygen 0 - 25% Volume
 - H₂S 0 - 1000 PPM (0 - 250 / 500 / 3,000 / 5,000 PPM optional)
- **Self draining moisture trap**
- **Automatic backflush of sampling system**
- **Long life air aspirator (no moving parts)**
- **Suitable for inside/outside installations**
- **NEMA 4X enclosure**
- **Uses proven RKI technology**
- **Modular design easy to maintain**
- **Simple to operate**

Industry Applications

- **Wastewater Treatment Digesters**
- **Biogas Methane**
- **Animal Farms**

RKI is proud to introduce our Digester Gas Monitor. Gas from waste digesters contains high levels of methane, CO₂, and H₂S, with little to no oxygen present. The RKI gas monitor checks for all these gases on a cyclic basis. A powerful air aspirator draws a sample from up to 100 feet away. Since digester gas contains high humidity and high H₂S, both of which can cause damage to sampling systems, the RKI Digester Gas Monitor is designed to handle these with no damage to the sampling system or sensors. The sample is passed through a series of dirt, dust, and moisture stopping filters, and these filters are automatically purged with fresh air at the end of each cycle.

Measurement time is just 4 minutes, taken at periodic cycles. Cycle time is selectable, with settings for cycle time of 15 minute, 1 hour, 4 hours, 8 hours, or 24 hours. A cycle can also be initiated anytime by pressing a button. After each cycle, the sensors and sampling system are flushed with fresh air so as to minimize corrosion caused by the high H₂S content. The system is fault tolerant minimizing the possibility of expensive repairs or downtime.

System integrity is maintained at all times using a flow fail monitoring device which provides a fail alarm and relay if there is ever a problem with the flow system, such as a blockage, or if the air aspirator compressed air supply is removed or interrupted.

The system is housed in a wall mounting NEMA 4X enclosure. The gas readings can be viewed through the enclosure door clear window. Flow meters and filters are easily visible for confirmation of correct flows and operation. The RKI Digester Gas Monitor contains adjustable alarm levels for each gas, and also programmable alarm relays. In addition, the unit provides 4-20mA signals for each gas concentration for connection to an external DCS, PLC, or other site control system. A Modbus output is also available. The outputs are the readings received from the last cycle taken.

Monitor for Gases Produced by Digester Process

RKI Controller Used	Beacon 410A with special firmware structured to meet product requirements.
Input Power	100/115/220 VAC $\pm$ 10% or 24VDC
Enclosure	• NEMA 4X enclosure with a window for viewing the gas readings on an LCD display, flow meter, and any other items which require visibility. • For indoor or outdoor use.
Sampling Method	Air Aspirator (compressed air source is required)
Sample Filtering	• Internal water trap automatically drained after each detection cycle with a 30 second blowback purge. • Internal gas dryer to dry the sample after it leaves the hydrophobic in line filter.
Flow Rate	System flow rate 3 SCFH.
Flow Meters	0 – 5 SCFH Flow meter for total flow. 0 – 0.5 SCFH Flow meter with valve for H ₂ S sample flow. 0 – 2 SCFH Flow meter with valve for H ₂ S dilution flow.
Maximum Inlet/Exhaust Tubing Length	100 ft.
Cycle Time	Adjustable test cycle times of 15 minutes, 1 hour, 4 hours, 8 hours, or 24 hours.
Target Gases/Detection Ranges	• Methane: 0 – 100% Volume • Oxygen: 0 – 25% Volume • CO₂: 0 – 50% Volume • H₂S: 0 – 1000 PPM using internal dilution (0 - 250 / 500 / 3,000 / 5,000 PPM H₂S optional ranges)
Sensors	• Methane and CO₂: NDIR (non-dispersive infrared) sensors • Oxygen and H₂S: Long life electrochemical sensor
Operating Temperature/ Humidity	• 0°C – 40°C (32°F – 104°F) • 0 – 100% Relative Humidity
Sample Inlet Requirements	Sample inlet pressure must be less than 1 PSI and constant. It is recommended to regulate it to 0.5 psi (0.04 bar).
Alarms	• Visual LED alarms (viewed through window) • Audible buzzer alarm (on housing bottom) • Optional horn/strobe alarm (on housing top)
Outputs	• 4-20 mA for each active sensor • Modbus RTU RS-485
Size	24"H x 24"W x 10"D (61cm H x 61cm W x 25.4cm D)
Wire Entry	Three 3/4" Conduit Hubs on bottom of enclosure
Warranty	1 Year

Specifications subject to change without notice.

Made in the USA



Toll Free: (800) 754-5165 • Phone: (510) 441-5656
 Fax: (510) 441-5650 • www.rkiinstruments.com

Authorized Distributor:

Fixed Systems Specialty Products

Digester Gas Monitor

ORDERING INFORMATION: When ordering a Digester Gas Monitor please specify the following:

- 1) Select gas combination below specifying H2S ranges as 500 ppm, 1,000 ppm, 3,000 ppm, or 5,000 ppm.
- 2) For H2S ranges of 500 ppm, 3,000 or 5,000 ppm on 1, 2 or 3 gas versions, add -05K, -3K or -5K to the end of the part number.
- 3) For gas combinations not listed below, please consult the factory.
- 4) Prices below are only guidelines. Consult the factory for a quotation.

Note: Standard discounts do not apply to Digester products. All Digester quotations must come from the factory.



4 Gas Models

Part#	Description	Suggested Retail
72-2120-401	Digester gas monitor, 100% volume CH4 / 25% volume O2 / 50% volume CO2 / 1,000 ppm H2S	 16,000.00
72-2120-401-05K	Digester gas monitor, 100% volume CH4 / 25% volume O2 / 50% volume CO2 / 500 ppm H2S	 16,000.00
72-2120-401-3K	Digester gas monitor, 100% volume CH4 / 25% volume O2 / 50% volume CO2 / 3,000 ppm H2S	 16,000.00
72-2120-401-5K	Digester gas monitor, 100% volume CH4 / 25% volume O2 / 50% volume CO2 / 5,000 ppm H2S	 16,000.00

3 Gas Models

Part#	Description	Suggested Retail
72-2120-301	Digester gas monitor, 100% volume CH4 / 25% volume O2 / 1,000 ppm H2S	 15,500.00
72-2120-302	Digester gas monitor, 100% volume CH4 / 25% volume O2 / 50% volume CO2	 15,700.00
72-2120-303	Digester gas monitor, 100% volume CH4 / 50% volume CO2 / 1,000 ppm H2S	 15,800.00
72-2120-304	Digester gas monitor, 25% volume O2 / 50% volume CO2 / 1,000 ppm H2S	 15,500.00

2 Gas Models

Part#	Description	Suggested Retail
72-2120-201	Digester gas monitor, 100% volume CH4 / 25% volume O2	 15,200.00
72-2120-202	Digester gas monitor, 100% volume CH4 / 1,000 ppm H2S	 15,300.00
72-2120-203	Digester gas monitor, 100% volume CH4 / 50% volume CO2	 15,500.00
72-2120-204	Digester gas monitor, 25% volume O2 / 1,000 ppm H2S	 15,000.00
72-2120-205	Digester gas monitor, 25% volume O2 / 50% volume CO2	 15,200.00

1 Gas Models

Part#	Description	Suggested Retail
72-2120-101	Digester gas monitor, 100% volume CH4	 15,000.00
72-2120-102	Digester gas monitor, 25% volume O2	 14,700.00
72-2120-103	Digester gas monitor, 1,000 ppm H2S	 14,800.00
72-2120-104	Digester gas monitor, 50% volume CO2	 15,000.00

Digester Calibration Kits

Instrument #	Cal-Kit Part #	Cal-Kit Description	Price
72-2120-103	81-2120-103-1K	Cal kit, Digester 101, 58AL cyl H2S 200 ppm in N2, demand flow regulator, case, and tubing	490.00
72-2120-401	81-2120-401-1K	Cal kit, Digester 401, 58L steel cyl CO2 40% vol / CH4 60% vol in N2, 58AL cyl H2S 200 ppm in N2, demand flow regulator, case, and tubing	585.00
	81-2120-401-5K	Cal kit, Digester 401, 58L steel cyl CO2 40% vol / CH4 60% vol in N2, 58AL cyl H2S 500 ppm in N2, demand flow regulator, case, and tubing	585.00

Fixed Systems Specialty Products

Digester Replacement Parts & Accessories

Part#	Description	Suggested Retail
31-0023RK	Flowmeter, 0.2 - 2.0 SCFH, stainless steel ftngs, with valve	120.00
31-0030RK	Flowmeter, 0.6 - 5 SCFH, stainless steel ftgs, 1/8 NPT, without valve	80.00
31-3002-01	Regulator, 1/4 NPT ports, 150 psi max input, 0-0.5 psi output with INCREASE label, Digester	960.00
32-0209RK	Solenoid Valve, 3-Way, multi-purpose, 1/8 NPT Female, 24 VDC, stainless steel	148.00
32-0210RK	Solenoid Valve, 2-Way, Normally Closed, 1/8 NPT Female, 24 VDC, stainless steel	220.00
32-0221-02	Solenoid Valve for Digester inlet, EPDM and polypropylene with label	600.00
32-0221-03	Solenoid Valve for Digester inlet, EPDM and polypropylene, retrofit kit to replace SS valve	620.00
33-0164RK	Filter, oil mist removal, Balston, 9900-05-BK, EAGLE / EAGLE 2 / marine	50.00
33-0167RK	Filter, particulate, CF-8369	25.00
33-0171RK	Filter replacement, AcroPak 300 with PTFE membrane, 0.2 um	200.00
33-0413RK	Filter, Water Trap, 5 micron element, Polycarbonate Bowl, Female 1/4"NPT	120.00
33-2100RK	Dryer, gas, w/12 inch long tube, polypropylene, Perma Pure MD-110-12P	560.00
51-0096RK-10	Adder, strobe / horn for Digester Gas Monitor	180.00
61-5040RK-05	Sensor, IR Carbon Dioxide (CO2) 0-50%, plug-in type, non-explosion proof	400.00
61-5041RK-CH4	Sensor, IR Methane (CH4) 0 - 100% vol, plug-in	400.00
65-2039RK	Sensor, Hydrogen Sulfide (H2S) 0-200 ppm / 1,000 ppm	520.00
75-0038	Standby battery, 12AH, with charger circuit added to Digester controller	495.00
OS-C11	Sensor, Oxygen with cable and pigtail, CO2 resistant	625.00

Paper Tape Monitors

ORDERING INFORMATION: When ordering a Paper Tape system please specify the following:

- 1) Paper tape machine (specify gas and range)
- 2) Replacement tape (specify gas and range)
- 3) Consult factory before selecting any paper tape monitor



Part#	Description	Suggested Retail
FP-300	Model FP-300 paper tape machine	5,300.00
FP-300A-BF3	Model FP-300 paper tape machine for Boron Trifluoride, 0 - 3 ppm	5,600.00
FP-300A-HBR	Model FP-300 paper tape machine for Hydrogen Bromine HBr, 0 - 2 ppm	5,600.00
FP-300AGZS	Model FP-300 paper tape machine for C4F6/C5F8, 0 - 5.00 ppm	8,600.00
FP-301-ASH3	Model FP-300 paper tape machine for Arsine AsH3, 0 - 15 ppb	5,600.00

Replacement Parts

65-FC-010	Tape FC-010 for Ammonia NH3, FP-300	170.00
65-FCL-001	Tape FCL-001 for Arsine AsH3, FP-300/-301	170.00
65-FCL-015	Tape FCL-015 for Chlorine Cl2, FP-300	170.00
30-1016RK	Replacement pump for 35-3001/GD-K7D2/GD-K77D/1017, 24 VDC, with connectors & cable, RP-D24A-1	150.00
33-0165RK	Filter, Millipore, PTFE, Disc type, hydrophobic, EAGLE, Fixed Systems	30.00
65-FC-303	Tape FC-303 for Chlorine Cl2, 0 - 0.5 ppm, FP-300	170.00
65-FCL-002	Tape FCL-002 for Silane SiH4, FP-300	170.00

Part#	Description	Suggested Retail
FP-330	Model FP-330 paper tape machine for formaldehyde	5,700.00

Replacement Parts

65-FCL-018	Tape FCL-018 for formaldehyde, for FP-330	130.00
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Replacement Parts For Discontinued FP-260AGZS

Part#	Description	Suggested Retail
65-FV-017	Tape FV-017 for Hexafluorobutadiene C4F6 & C5F8	120.00
65-FVL-001	Tape FVL-001 for Cupra Select, Arsine AsH3, Phosphine PH3, Disilane SiH6, Hydrogen Sulfide H2S, Hydrogen Selenide H2Se	85.00
65-FVL-002	Tape FVL-002 for Silane SiH4, Diborane B2H6, Dimethylaluminum Hydride DMAH (C2H7AL), Cupra select	85.00
65-FVL-004	Tape FVL-004 for Hydrogen Chloride HCl	85.00
65-FVL-006	Tape FVL-006 for Hexafluoroacetylene Acetone Hhfac (CF3COCH2COCF3)	85.00
65-FVL-015	Tape FVL-015 for Ruthenium tetroxide RuO4, Chlorine Cl2	85.00
65-FVL-108	Tape FVL-108 for Phosgene COCl2	110.00

