

RRJ Series

H₂S or Combustible Gases

Zero-Maintenance Gas Transmitters

"INNOVATORS IN GAS DETECTION"

BW
Technologies



An Industry First Maintenance-free 4-20 mA Gas Transmitter



FEATURES:

The rugged, zero-maintenance RRJ Series Transmitters for H₂S or combustible gases come complete with sensor and provide a 4-20 mA signal that is compatible with any 4-20 mA control system (DCS, PLC, BW RRJ-4000 and CR-4000 controllers, etc.).

- △ Eliminate maintenance—no calibration required, no sensor replacement required, no downtime
- △ Rugged, durable, polyurethane encapsulated transmitter with sensor
- △ Quick disconnect with military-style plug-in wiring connector during installation and decommissioning
- △ 2 year operational life
- △ Daily, automatic, full-function self-test of sensor and circuitry integrity
- △ LED red visual alarm
- △ Electrochemical sensor for H₂S and catalytic bead sensor (combustible gases)
- △ Wide supply voltage range—10 to 28 VDC for industry standard compatibility
- △ Low initial cost—competitively priced
- △ Magnetic read switch for bump test on toxic sensors

4-20 mA Transmitter with Sensor

Ordering Information

Zero-maintenance, 2-year, 4-20 mA transmitter with sensor, and field-replaceable sensor screen

RRJ-RH04	2-wire Hydrogen Sulfide	(0-100 ppm)
RRJ-RW04	3-wire Combustible	(0-100% LEL)
RRJ-RH04-K	RRJ kit including H ₂ S sensor, pigtail connector and ½" NPT fitting	
RRJ-RW04-K	RRJ kit including Combustible sensor, pigtail connector and ½" NPT fitting	

Accessories and Options

RRJ-SC010-K	10 ft. / 3 m plug-in factory built sensor cables
RRJ-SC###-K	Other lengths up to 1,000 ft. / 305 m in 10 ft. / 3 m increments
RRJ-FW1-K	Field wiring plug-in connector kit
RRJ-FW2-K	Military-style Connector for RRJ transmitter
RRJ-PT1-K	Pigtail connector (2-wire) for toxic or O ₂ sensors
RRJ-PT1-K2	Pigtail connector for 3-wire LEL sensors
RRJ-FIL-K5	Sensor screen replacements (kit of 5)
RRJ-NPT	½" NPT fitting

Compatible with all 4-20 mA Controllers and the following BW Controllers:

RRJ-4000	4 Channel AC/DC Stainless Steel Controller
CR-4000	4 Channel AC/DC Controller



www.gasmonitors.com

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RRJ Transmitters with Sensor

H₂S or Combustibles

BW Technologies introduces the first zero-maintenance, 4-20 mA transmitters on the market.

BW Technologies has applied cutting-edge science developed for the world's most advanced disposable gas detector—the GasAlertClip—to the RRJ Series of transmitters.

Daily Automatic Self-Test

The full function self-test is a unique safety advantage. The sensor integrity is tested as well as the circuitry integrity. The full function sensor integrity test not only advises if the sensor is present, but additionally tests the sensor's response and advises if the sensor is defective.

Operational Life

The operational life is two years in normal use. The life counter is activated when power is applied and runs continuously while the transmitter is operating. If power is interrupted, the counter stops and will resume counting when power is restored.

Life-Ended Warning and Alarm

One month prior to the end of the transmitter's operational life, the LED will begin a slow flash warning. When the 2 year operational life is over, the monitor will send a 2 mA signal to the controller advising that the monitor is now disabled and requires replacement.

"INNOVATORS IN GAS DETECTION"



For further information:

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SPECIFICATIONS

Transmitter with Sensor: 4-20 mA gas transmitter with advanced microprocessor-based circuitry
Supply Voltage: 10 VDC (min.) to 28 VDC (max.)
Power Supply: H₂S: 50 mA; Combustibles: 100 mA;
Power Consumption: H₂S version: 4mA @ 12 VDC; 35mA @ 24 VDC nominal
(Normal Operation) Combustible version: 50mA @ 12 VDC; 35mA @ 24 VDC nominal
EMI/RFI: Complies with EMC Directive 89/336/EEC

TRANSMISSION RANGE: 1,000 feet / 305 m with 22 AWG / 0.64 mm cable

SENSORS:

Gases Monitored	Sensor Type	Measuring Range	Temperature Range	Cable
H ₂ S	Electrochemical	0-100 ppm	-40 to + 122°F; -40 to + 50°C	2-wire
Combustibles	Catalytic	0-100% LEL	-40 to + 140°F; -40 to + 60°C	3-wire

Humidity: 5 to 90% non-condensing
Calibration: Factory calibrated. Not required for operational life
Enclosure: IP 65

FULL FUNCTION SELF-TEST: Daily (auto) and each time power is applied (auto)
Verifies: Sensor integrity and circuitry integrity

VISUAL ALARM: Red light emitting diode (LED)

STATUS ADVISE:

Advise Signals	LED Indicator	Current Output*
Normal Operation	ON	4-20 mA
Over Range Alarm	ON	21 mA
Fault: Self-Test Fail	Fast flashes (1 per 0.5 seconds)	2 mA
Life Ending Warning	Slow flashes (1 per 2 seconds)	4-20 mA
Operational Life Ended	OFF	2 mA
Power OFF	OFF	0 mA

*Current Output: Signal to control system (DDC, PLC, etc.)


ALARM OUTPUTS: Two are available if required; rated 250 mA @ 24 VDC
Two factory specified alarm levels (LOW and HIGH)

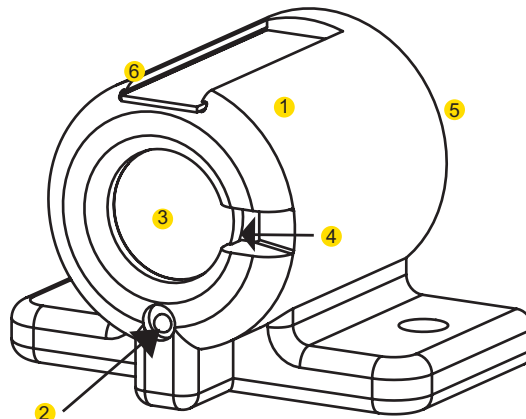
PHYSICAL: Rugged polyurethane encapsulated enclosure
Size: 2.65 x 2.3 x 3.25 in. / 6.73 x 5.84 x 8.25 cm
Weight: approx. 6.2 oz. / 175 g

Connector: Plug-in, military-style, 6-pin connector
Accepts field wiring kit, pigtail assembly or optional BW plug-in remote RRJ sensor cables

OPERATING LIFE: 2 years
Warranty: 2 years including sensors

DUE TO ONGOING RESEARCH AND PRODUCT IMPROVEMENT, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

RATINGS AND CERTIFICATIONS:  H₂S: Class I, Div. 1, Gr. A, B, C, D (intrinsically safe with barrier)
H₂S: Class I, Div. 2, Gr. A, B, C, D
LEL: Class I, Div. 2, Gr. A, B, C, D



- 1 Rugged, encapsulated enclosure with predrilled mounting flanges—only the sensor is exposed
- 2 LED alarm indicator
- 3 Sensor (behind sensor screen)
- 4 Washable, replaceable second sensor screen
- 5 Plug-in field wiring connector
- 6 Magnetic read switch for activating calibration mode

Locally distributed by: