



Specifications Sheet



RADIUS BZ1

When it comes to choosing equipment to protect your worksite from gas hazards, rely on the Radius® BZ1 Area Monitor. No other area monitor protects your workers longer in the field with less setup, user training, and time in the shop.

- Detect up to seven gases using 22 sensor options including PID
- Longest running area monitor with a typical run time of 7 days (168 hours)
- Extended Run Time Power Supply can extend battery to over 1 month
- Ultra-bright blue and red lights and attention-grabbing alarms with distinctive tones
- Audible alarms sound at 105 dB at 1 m to cut through high-noise environments
- Largest display of any area monitor on the market
- Intuitive text-based navigation and configuration
- Customizable alarm action messages such as "EVACUATE" or "VENTILATE"
- LENS™ Wireless enables communication between area monitors and Ventis® Pro5 personal monitors
- All-weather sensor deployment and 360-degree gas path for more accurate detection
- DualSense® Technology increases worker safety by using two sensors to detect the same gas

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SPECIFICATIONS*

WARRANTY

Two-year warranty, including sensors and battery

KEYPAD

Three buttons

DATA LOG

At least 3 months at 10-second intervals

EVENT LOGGING

60 alarm events

INGRESS PROTECTION

IP66

CASE MATERIAL

Impact-resistant polycarbonate alloys

DIMENSIONS

29 x 29 x 55 cm (11.5 x 11.5 x 21.5 in)

WEIGHT

7.5 kg (16.5 lb)

TEMPERATURE RANGE

-20 °C to 55 °C (-4 °F to 131 °F)

HUMIDITY RANGE

15% to 95% non-condensing (continuous)

DISPLAY/READOUT

11.2 cm (4.4 in) monochrome backlit graphical liquid crystal display (LCD)

POWER SOURCE/RUN TIME

Rechargeable nickel-metal hydride (NiMH) battery pack
7 days (168 hours) typical @ 20 °C, without pump, with wireless
3.5 days (84 hours) typical @ 20 °C, with pump, with wireless
30 days (720 hours) typical @ 20 °C, electrochemical sensors only, without pump, with wireless
≤8 hour recharge time

ALARMS

105 decibel (dB) at 1 m (3.3 ft) redundant audible alarms
Redundant, visual alarm LEDs (red and blue)

SENSORS

Up to 6 sensors (catalytic bead, photoionization detector, electrochemical, and infrared)
Up to 7 simultaneous readings

SPECIFICATIONS*

MEASURING RANGES

CATALYTIC BEAD

Combustible Gases: 0-100% LEL in 1% increments

ELECTROCHEMICAL

Ammonia (NH ₃):	0-500 ppm in 1 ppm increments
Carbon Monoxide (CO):	0-1,500 ppm in 1 ppm increments
Carbon Monoxide (CO High Range):	0-9,999 ppm in 1 ppm increments
Carbon Monoxide (CO/H ₂ Low):	0-1,000 ppm in 1 ppm increments
Carbon Monoxide/Hydrogen Sulfide:	CO: 0-1,500 ppm in 1 ppm increments H ₂ S: 0-500 ppm in 0.1 ppm increments
Chlorine (Cl ₂):	0-50 ppm in 0.1 ppm increments
Hydrogen (H ₂):	0-2,000 ppm in 1 ppm increments
Hydrogen Sulfide (H ₂ S):	0-500 ppm in 0.1 ppm increments
Hydrogen Cyanide (HCN):	0-30 ppm in 0.1 ppm increments
Nitrogen Dioxide (NO ₂):	0-150 ppm in 0.1 ppm increments
Oxygen (O ₂):	0-30% vol in 0.1% increments
Sulfur Dioxide (SO ₂):	0-150 ppm in 0.1 ppm increments
Phosphine (PH ₃):	0-5 ppm in 0.01 ppm increments
Nitric Oxide (NO):	0-1,000 ppm in 1 ppm increments
Chlorine Dioxide (ClO ₂):	0-1 ppm in 0.01 ppm increments
Hydrogen Chloride (HCL)	0-30 ppm in 0.1 ppm increments

INFRARED

Carbon Dioxide (CO ₂):	0-5% vol in 0.01% increments
Hydrocarbon (HC)	0-100% LEL in 1% LEL increments
Methane (CH ₄)	0-100% LEL in 1% LEL increments

PHOTOIONIZATION

Volatile Organic Compounds (10.6 eV): 0-2,000 ppm in 0.1 ppm increments

PUMP

Optional integral pump, up to 30.48 m (100 ft) sample draw

WIRELESS

Optional LENS™ Wireless, mesh network

Frequency: ISM license-free band (2.405 - 2.480 GHz)

Max Peers: 25 devices per network group

10 independent, configurable network groups

Range: 300 m (~1,000 ft) line of sight

Encryption: AES-128

Approvals: FCC Part 15, IC, CE/RED, others **

CERTIFICATIONS

INGRESS PROTECTION IP66

ATEX: Ex da ia IIC T4 Ga, Equipment Group and Category II 1G

China CPC: China CPC

China EX: Ex d ia IIC T1 Ga; Ex d ia IIC T4 Gb IR sensor

CSA: C1 I, Div 1, G A-D, T4

C22.2 No. 152 applies only to %LEL thermo-catalytic reading

IECEX: Ex da ia IIC T4 Ga

INMETRO: Ex da ia IIC T4 Ga; Ex db ia IIC T4 Gb IR sensor

KC: Ex d ia IIC T4

UL: C1 I, Div 1, Gr A-D, T4; C1 1 Zone 0 AEx da ia IIC T4 Ga1

SUPPLIED WITH MONITOR

Calibration cup (without pump), sample tubing and pump inlet water barrier (with pump), product manual, hand tool, charging power supply and region-specific cord

LANGUAGE

English, French, Spanish, German

* These specifications are based on performance averages and may vary by instrument.

** See www.indsci.com/wireless-certifications for country-specific wireless approvals and certifications.

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LENS™
WIRELESS

The Radius BZ1 is available with optional LENS Wireless. With LENS Wireless, your instruments will connect seconds after being turned on—with no need for setup or additional infrastructure. You will instantly receive real-time gas readings from other connected instruments on the network, helping your team react faster in emergency situations.



With the Radius BZ1, all critical technology pieces such as sensors, software, pumps, and wireless, live inside the patent-pending SafeCore® Module. Smart sensors are positioned face down to prevent the elements from interfering with gas readings, resulting in fewer false alarms.

The module slides out from the Radius Base for easy docking and automated maintenance, ensuring that your sensors are always ready to provide accurate gas detection.



The Radius Base is made of a durable, weather-resistant plastic. The base has built-in audio and visual alarms that grab workers attention, even in high-noise environments. A large battery keeps the unit working as long as you do, and side-grip handles help make the base easy to move from location to location.

It has never been easier to keep your area monitors up and running in the field. The SafeCore Module and Radius Base work together to provide maximum gas detection ability, while simplifying the job of maintaining your area monitors.

For a list of all accessories, visit
www.indsci.com/radius