





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 15 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
- Intrinsically Safe Extended Run Time Power Supply can provide indefinite run time in hazardous locations
- Ultra-bright blue and red lights and attention-grabbing alarms with distinctive tones
- Audible alarms sound at 108 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[®] Pro Series 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





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 realtime gas readings from other connected instruments on the network, helping your team react faster in emergency situations.

INDUSTRIAL SCIENTIFIC

Test drive the Radius BZ1 online with the Instrument Simulator www.indsci.com/radius-simulator



Introducing the Radius BZ1: Where Tech Meets Tough

Area monitors need two things to be successful: precise sensor technology to detect hazardous gases and the ruggedness to withstand long outdoor deployments. That combination has yet to be designed without compromise, until now.



With the Radius BZ1, all critical technology pieces such as sensors, software, pumps, and wireless, live inside the patented 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.

SafeCore Modules Can Be Placed Into Any Base Allowing You to:

- Have a smaller fleet of instruments, e.g., one base and two rotating modules to ensure continuous uptime of instruments in the field.
- Easily dock the module on the DSX[™] Docking Station to download data logs and alarm events, bump test, calibrate, and change settings.
- Adapt to your changing environment and reconfigure on the fly. Interchangeable modules allow you to switch from one sensor setup to another without needing more than one base. Or, switch from a non-pumped module to a pumped module to conduct confined space sampling.





Jump-start your gas detection program by selecting the appropriate monitor configuration, docking station, calibration gas, and regulator.

How Will You Maintain Your Radius BZ1?



x = Agency Certification: 1 = UL/CSA, 2 = ATEX/IECEx | y = Language: 1 = EN, 2 = FR, 3 = ES, 4 = DE | z = Power Cord: 1 = North America, 2 = European, 3 = Australia, 4 = UK

What Accessories Best Fit Your Needs?

CHECKLIST

| Accessory Labels for Asset Management | Filters |
|---------------------------------------|---|
| Alarm Muffler | Intrinsically Safe Extended Run Time Power Supply |
| Docking Stations | Probes |
| Extended Run Time Power Supply | □ RGX [™] Gateway |
| Extra Modules or Bases | Sample Tubes |

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

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

108 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, and electrochemical) Up to 7 simultaneous readings

PUMP

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

LANGUAGE

English, French, Spanish, German

MEASURING RANGES

CATALYTIC BEAD Combustible Gases:

ELECTROCHEMICAL Ammonia (NH₃): Carbon Monoxide (CO): Carbon Monoxide (CO High Range): Carbon Monoxide (CO/H₂ Low): Carbon Monoxide/Hydrogen Sulfide:

Chlorine (CL₂): Hydrogen (H₂): Hydrogen Sulfide (H₂S): Hydrogen Cyanide (HCN): Nitrogen Dioxide (NO₂): Oxygen (O₂): Sulfur Dioxide (SO₂): Phosphine (PH₃): Nitric Oxide (NO): 0-100% LEL in 1% increments

0-500 ppm in 1 ppm increments 0-1,500 ppm in 1 ppm increments 0-9,999 ppm in 1 ppm increments 0-1,000 ppm in 1 ppm increments CO: 0-1,500 ppm in 1 ppm increments H₂S: 0-500 ppm in 0.1 ppm increments 0-50 ppm in 0.1 ppm increments 0-2,000 ppm in 1 ppm increments 0-500 ppm in 0.1 ppm increments 0-30 ppm in 0.1 ppm increments 0-150 ppm in 0.1 ppm increments 0-1000 ppm in 1 ppm increments

PHOTOIONIZATION

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

WIRELESS

Optional LENS[™] Wireless, proprietary 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: | Pending |
| China EX: | Ex d ia IIC T1 Ga; Ex d ia IIC T4 Gb IR sensor |
| CSA: | CI 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 |
| UL: | Cl I, Div 1, Gr A-D, T4; Cl 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), hand tool, charging power supply and region-specific cord

* 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.



For a list of available rental products, visit www.indsci.com/rental



www.indsci.com

REV 5 0718