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 15 sensor options including PID
- Longest running area monitor with a typical run time of 7 days (168 hours)
- Intrinsic safety external power supply can extend battery run time to over 1 month
- 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"
- Pre-configured LENS™ Wireless networks require no setup or infrastructure
- 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
- iNet® and DSX™ Docking Station ready

LENS™ WIRELESS

The Radius BZ1 is available with optional LENS Wireless. With LENS Wireless, your instruments will be connected from the time you turn them 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.

INDUSTRIAL SCIENTIFIC

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 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.

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.

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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?

SELECT THE SENSORS	PUMP	WIRELESS	MONITOR PART #	DOCKING STATION	CALIBRATION GAS 116L	DEMAND FLOW REG.
LEL (Pentane), CO, H_2S, O_2			BZ1-K123000x0y	18109396-13z	18109157	18105841
LEL (Pentane), CO, H_2S, O_2		✔	BZ1-K123000x1y	18109396-13z	18109157	18105841
LEL (Pentane), CO, H_2S, O_2	✔		BZ1-K123001x0y	18109396-13z	18109157	18105841
LEL (Pentane), CO, H_2S, O_2	✔	✔	BZ1-K123001x1y	18109396-13z	18109157	18105841
LEL (Pentane), CO, H_2S, O_2, SO_2			BZ1-K123500x0y	18109396-13z	18109234	18105841
LEL (Pentane), CO, H_2S, O_2, SO_2		✔	BZ1-K123500x1y	18109396-13z	18109234	18105841
LEL (Pentane), CO, H_2S, O_2, SO_2	✔		BZ1-K123501x0y	18109396-13z	18109234	18105841
LEL (Pentane), CO, H_2S, O_2, SO_2	✔	✔	BZ1-K123501x1y	18109396-13z	18109234	18105841
LEL (Pentane), CO, H_2S, O_2, SO_2, PID			BZ1-K1235R0x0y	18109396-13z	18109234, 18102939 (103L)	18105841 x2
LEL (Pentane), CO, H_2S, O_2, SO_2, PID		✔	BZ1-K1235R0x1y	18109396-13z	18109234, 18102939 (103L)	18105841 x2
LEL (Pentane), CO, H_2S, O_2, SO_2, PID	✔		BZ1-K1235R1x0y	18109396-13z	18109234, 18102939 (103L)	18105841 x2
LEL (Pentane), CO, H_2S, O_2, SO_2, PID	✔	✔	BZ1-K1235R1x1y	18109396-13z	18109234, 18102939 (103L)	18105841 x2

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

☐ Docking Stations

☐ Extra Modules or Bases

☐ Accessory Labels for Asset Management

☐ Probes

☐ Sample Tubes

☐ Replacement Sensors

☐ Filters

☐ Intrinsic Safety External Power Supply

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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%-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

MEASURING RANGES:

CATALYTIC BEAD

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

ELECTROCHEMICAL

Ammonia:	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 Monozide (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_2S: 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_2S):	0-500 ppm in 0.1 ppm increments
Hydrogen Cyanide (HCN):	0.4-30 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

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, proprietary mesh network
Frequency: ISM license-free band (2.4 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, Others**

CERTIFICATIONS:
UL: Class I, Division 1, Groups A, B, C, and D; T4
Class 1 Zone 0 AEx da ia IIC T4 Ga1
CSA: Class I, Division 1, Groups A, B, C, and D; T4
C22.2 No. 152 applies only to %LEL thermo-catalytic reading
ATEX: Ex da ia IIC T4 Ga, Equipment Group and Category II 1G
IECEx: Ex da ia IIC T4 Ga

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

REFERENCE GUIDE 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.

Notes:

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