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RADIUS[™] BZ1 AREA MONITOR Product Guide

Is Your Worksite **READY FOR THE MOMENT?**

Stop worrying about missing alarms. Stop stressing over equipment downtime. The Radius[™] BZ1 is built to detect gas hazards 24/7 without the hassle of elaborate wireless setups and maintenance routines. Radius just works, no questions asked, so your teams can focus on what's important and be confident that their area monitors are ready for whatever comes their way.

Meet the New Face of **AREA MONITORING**







Deploy Whenever and Wherever

Whether setting up a perimeter, or monitoring leaks or confined spaces, the Radius BZ1 allows for flexible deployments to create buffers between workers and gas hazards.

- Communicate gas hazards during emergency response, long-term projects, or while performing routine worksite maintenance by adding area monitors wherever they are needed.
- Deploy monitors for temporary work without worrying about battery life. The Radius BZ1 is the longest running area monitor on the market with 7 days (168 hours) of typical battery life and the option to extend it to over a month using the external power supply.
- Accurately detect gases regardless of environmental conditions and avoid false alarms thanks to the 360-degree gas path and all-weather sensor deployment.

Get the Message Loud and Clear

Loud audible alarms and different colored strobes for gas and non-gas events ensure workers not only know when the instrument is alarming, but why.

- Grab workers' attention with audible alarms that sound at 108 dB at 1 m to cut through high-noise environments.
- Easily distinguish between critical and non-critical events based on ultra-bright blue and red lights and differing alarm tones.
- Know what hazards are present without getting too close thanks to a display that is three times larger than its nearest competitors'.
- Focus on taking action in emergency situations with custom alarm action messages like "EVACUATE" or "VENTILATE."







Know What is Happening Without Approaching Hazards

Know more, without buying more, thanks to optional LENS[™] Wireless.

- Create wireless networks out of the box, with no setup or extra equipment needed, thanks to LENS Wireless and its automatic, peer-to-peer mesh network.
- Receive alarms and real-time gas readings from any other instrument on the network.
- Get long-range communication, up to 300 m (~1,000 ft) between units, with minimal impact on the instrument's best-in-class run time.

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Spend Less Time Managing Your Instruments

Your instruments will spend more time in the field and less time in the shop thanks to a unique modular design, the DSX[™] Docking Station, and patented DualSense[®] Technology.

- Automatically bump, calibrate, manage settings, and update software for the removable, patent-pending SafeCore[™] Modules using DSX[™] Docking Stations.
- Have confidence that gas readings are accurate and workers are safe, even when instruments are deployed for an extended period without maintenance, thanks to the redundant sensors in patented DualSense[®] Technology.
- Configure your monitors, in your language, using textbased menus.

How Will You Use Your Radius BZ1?

Area monitors are a highly flexible solution because they can be placed in temporary or long-term configurations based on your specific hazards. With the addition of LENS[™] Wireless, networks are created out of the box and provide visibility into gas hazards that are happening in any location.

- Confined Space Monitoring Know what's happening in a confined space by using the pumped SafeCore Module and tubing to draw air samples to the monitor.
- (2) Perimeter Monitoring Set up monitors around a tank, hot work, or other known hazardous areas to continuously monitor for gas leaks.
- ③ Fence Line Monitoring Create a barrier between a safe zone and hazardous work area. Use the hopping capability of LENS Wireless to know what is happening up to 1.5 km away.



LENS Wireless Highlights:

- No infrastructure required
- Out-of-the-box operation
- No need for IT setup
- Self-forming, self-healing networks

CLENS

- Long-range communication up to 300 m (~1,000 ft) without sacrificing runtime
- Peer readings display alarms and data from across the linked group

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

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MEASURING RANGES:

CATALYTIC BEAD Combustible Gases:

ELECTROCHEMICAL

Ammonia: Carbon Monoxide (CO): Carbon Monoxide (CO High Range): Carbon Monozide (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): 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 H_2S : 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 0.4-30 ppm in 0.1 ppm increments 0-150 ppm in 0.1 ppm increments 0-30% vol in 0.1% increments 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.

Ready for the Moment, Day and Night

Test drive the Radius BZ1 with the INSTRUMENT SIMULATOR www.indsci.com/radius-simulator

Build and price your Radius BZ1 online with the INSTRUMENT BUILDER www.indsci.com/radius-builder







www.indsci.com/radius

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