

# enLink IAQ Radon

## LoRaWAN IAQ and Continuous Radon Monitoring

Synetica's enLink IAQ Radon Monitor provides continuous, real-time monitoring of radon, a naturally occurring radioactive gas that can enter buildings unnoticed and accumulate in enclosed spaces, where it poses a serious long-term health risk. As radon is invisible, odourless, and tasteless, reliable and specialised measurement is essential.

Built on Synetica's proven IAQ platform, the enLink IAQ Radon Monitor combines a robust indoor air-quality monitoring architecture with a dedicated radon detection element. It delivers stable, repeatable radon measurements with a consistent response across a wide dynamic range, making it well suited to commercial offices, schools, healthcare environments, and high-end residential developments.








Designed and manufactured in the UK, the enLink IAQ Radon Monitor provides the data needed to identify long-term trends, detect periods of elevated exposure, and support informed mitigation strategies. Using LoRaWAN long-range wireless communication, the device can be deployed flexibly across large estates, multi-level buildings, and complex sites, enabling scalable, low-maintenance monitoring.



### Key Features

-  Dedicated radon monitoring with stable, repeatable performance
-  Discreet, modern enclosure design
-  Long-range LoRa™ wireless connectivity (up to 16 km)
-  Subscription-free data
-  Ideal for early detection, long-term monitoring and mitigation verification
-  External power or internal battery power

### Sensed Parameters

- |                                                                                                          |                                                                                                          |                                                                                              |                                                                                                            |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <br>Temperature       | <br>Relative Humidity | <br>VOCs  | <br>Barometric Pressure |
| <br>PM 1, 2.5, 4, 10* | <br>CO <sub>2</sub> * | <br>Radon |                                                                                                            |

\* Model dependent

## Why Radon Monitoring Matters

Radon levels shift constantly as atmospheric pressure, soil conditions, ventilation patterns, weather and building use change throughout the day. Because of this natural variability, a short-term or single measurement can only ever offer a snapshot rather than a true indication of exposure risk. Continuous monitoring is the most dependable way to understand daily, weekly and seasonal fluctuations and to identify areas where radon remains persistently elevated.

Long-term inhalation of radon and its decay products is a leading environmental cause of lung cancer, and concentrations can differ dramatically not only between buildings but also between individual rooms due to structural characteristics, airflow, insulation and occupancy patterns. Sustained monitoring enables early detection of rising levels, provides the evidence needed to design and validate mitigation systems, and delivers reliable data for compliance, healthy-building frameworks and occupant assurance.

## About Synetica

Since 2008, Synetica has specialised in precision environmental monitoring for facilities management, industrial, commercial and public-sector applications. Our technologies support healthy-building performance, regulatory compliance and data-driven decision-making, integrating seamlessly with wider smart-building and sustainability strategies.

From major infrastructure schemes to retail, commercial property and large-scale development projects, Synetica's solutions deliver reliable, actionable insight. The enLink IAQ Radon extends this capability, offering a combined radon and IAQ platform built on trusted engineering expertise and UK manufacturing quality.

## Specifications

| Radon                                        |                                                                                                                                                                                |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement range                            | 3.3 Bq/m <sup>3</sup> – 37 kBq/m <sup>3</sup><br>(0.09–1,000 pCi/L)                                                                                                            |
| Sensitivity                                  | 0.2 cpm / 1,000 Bq/m <sup>3</sup>                                                                                                                                              |
| Response Linearity                           | ±2.5%                                                                                                                                                                          |
| Time to first data display                   | 6 hours                                                                                                                                                                        |
| Reliable data measurement time               | <ul style="list-style-type: none"> <li>• 6 h for &gt; 190 Bq/m<sup>3</sup></li> <li>• 12 h for 94–190 Bq/m<sup>3</sup></li> <li>• 24 h for &lt; 94 Bq/m<sup>3</sup></li> </ul> |
| Data update interval                         | 1 hour                                                                                                                                                                         |
| Available Measurements (Integration windows) | 6h, 12h, 24h, 48h, 72h, 96h<br>Total average since last reset                                                                                                                  |
| Detection Environmental                      | -10°C to 45°C, RH < 90%                                                                                                                                                        |
| Temperature                                  | Accuracy: ±0.2°C (typical)<br>Range: -20°C to +50°C                                                                                                                            |
| Relative Humidity                            | Accuracy: ±2% RH (typical)<br>Range: 0 – 100% RH (non-condensing)                                                                                                              |
| VOC's                                        | VOC IAQ Index and ppm (bVOC)<br>Range: 0 – 500 IAQ                                                                                                                             |
| Pressure                                     | Accuracy: ±0.12hPa<br>equivalent to ±1m in altitude                                                                                                                            |
| CO <sub>2</sub> *                            | Accuracy: ± (30ppm, +3% of reading)<br>Range: 0 – 5,000 ppm                                                                                                                    |
| Particulate Matter *                         | MCERTS Certified<br>EN 15267 and WELL Compliant<br>Particles measured: PM0.5, PM1, PM2.5, PM4 & PM10                                                                           |
| Operating conditions                         | -10 °C to +45 °C, RH < 80%                                                                                                                                                     |
| Power                                        | External 12-24V DC (≥200mA) or<br>internal 3.6V Lithium D-Cell                                                                                                                 |

\* Model Dependent

| Model       | Parameters                                                                         |
|-------------|------------------------------------------------------------------------------------|
| ENL-IAQ-R   | Temperature, Humidity, VOCs, Pressure, Radon                                       |
| ENL-IAQ-RC  | Temperature, Relative Humidity, VOCs, Pressure, CO <sub>2</sub> , Radon            |
| ENL-IAQ-RCP | Temperature, Humidity, VOCs, Pressure, CO <sub>2</sub> , Particulate Matter, Radon |

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