

Checking Fire Suppression in Hazardous Areas

The Portalevel® INTRINSICALLY SAFE is an ultrasonic liquid level indicator approved for Zone 1 ATEX hazardous or explosive environments. Portalevel IS has advanced calibration features for testing fire cylinders, bringing peace of mind for operators and making scheduled maintenance more efficient — especially in large-scale, multicylinder installations across oil & gas, chemicals, power generation, and aviation infrastructure.



Wherever potentially explosive atmospheres may be present, safety and compliance are paramount. Correctly working fire suppression systems are critical assets in these areas, but the inspection of the associated pressurized retardant cylinders has been problematic. Manual handling and costly downtime are often unavoidable when using traditional verification methods such as cylinder weighing to determine if any contents have escaped. Weighing requires shutting down systems and often removing heavy cylinders and is often a multi-person activity.

But there is a better way that assures safety. The [Portalevel® IS \(Intrinsically Safe\)](#) from Coltraco Ultrasonics is an intrinsically safe liquid level indicator specifically designed to be used safely in ATEX Zone 1 / 21 areas – delivering speed, accuracy, and safety in a compact, certified solution. The [Portalevel® IS](#) intrinsically safe ultrasonic liquid level indicator is the ideal tool for testing cylinder contents in ATEX Zone 1 classified areas. The [Portalevel® IS](#) uses ultrasonic liquid level detection through the cylinder wall to carry out checks in situ — in less than 30 seconds per cylinder. This makes it a one-person operation with no manual handling risks, no lifting equipment, and no interruption to business operations. The device offers an accuracy of ± 1.5 mm, with a simple digital display and intuitive bar-graph echo indicator that makes identifying the liquid level straightforward — even in high-vibration or low-access areas.



Intrinsically Safe Ultrasonic Level Indicators

- Approved for use in Zone 1, II 2 G Ex ib IIA T4 Gb standards, it can be used in even the most sensitive environments.
- It can be used to locate the liquid level in any liquified fire suppression system, including CO₂, FM200®, NOVEC™ 1230, when such systems are installed in ATEX Zones.
- This removes the need for a Hot Work Permit to inspect your fire suppression systems, offering significant time, cost and safety benefits compared to individually weighing your cylinders.

In order to meet ATEX requirements for power output, the [Portalevel® IS](#) outputs a much weaker signal than Coltraco's Portalevel® MAX range. It is both ATEX and IECEx certification (II 2 G Ex ib IIA T4 Gb), meaning it can be safely operated in Zone 1 / 21 and Zone 2 / 22 hazardous areas — even during live fire suppression system checks. The unit has been designed throughout for safety. Being powered by a single AA battery, with no hot surfaces or sparking risk, removes the need for hot work permits and simplifying on-site compliance.

The [Portalevel® IS](#) can be used safely in any area where volatile or explosive gases, vapors or mists are likely to be present in the air (IECEx Zone 1), such as LNG Tankers, offshore platforms with flammable gases, chemical plants, gas plants, refineries, and other facilities. Weighing just 480 g and supplied with a durable ultrasonic sensor and BNC cable, the [Portalevel® IS](#) can be carried comfortably around large installations and operates effectively in temperatures from -20°C to $+40^{\circ}\text{C}$, with a straightforward interface that requires minimal training. When paired with the [Portasteel® Calculator](#) (a separate software-based tool), the [Portalevel® IS](#) can convert liquid level readings into weight, offering a full audit trail for regulatory records.

To find out more about how the [Portalevel® IS](#) can transform your approach to fire suppression system maintenance in hazardous areas, contact Saelig today!

