



# PORTALEVEL® IS

Intrinsically Safe Portable  
Ultrasonic Liquid Level Indicator

Made in the UK.

# INTRODUCING THE PORTALEVEL® IS

As the world's first innovative portable ultrasonic liquid level indicator with dual IECEx and ATEX certification, Coltraco Ultrasonics' **Portalevel® INTRINSICALLY SAFE** meets stringent safety standards for explosive atmospheres, making it suitable for use globally in both Zone 1 and Zone 2 hazardous areas. The device measures liquid levels contained in fire suppression cylinders in hazardous zone environments.

**What is it?:** The **Portalevel® INTRINSICALLY SAFE** is an ultrasonic liquid level indicator with IECEx and ATEX certification suitable for Zone 1 & 2 hazardous or explosive environments.

**What is it for?:** Non-invasively monitors the contents of liquefied fire suppression systems in hazardous, explosive environments. It is ideal for testing cylinder contents in Zone 1 & 2 hazardous areas.

**Type** – Intrinsically Safe Portable Ultrasonic Liquid Level Indicator

**Marking** -  (II 2 G Ex ib IIA T4 Gb), IECEx (Ex ib IIA T4 Gb)

**Function** – Designed for monitoring liquefied contents in fire suppression cylinders, such as CO<sub>2</sub>, FM-200®, Novec™ 1230, FE-13™, FE-25, Halons and many more liquefied gaseous agents.

**Part Number** – 2290334-IS

**Regulation Compliance:** NFPA, ISO 14520 & IMO SOLAS FSS



## APPLICATIONS

The adaptable **Portalevel® INTRINSICALLY SAFE** is in many industries such as:



LNG & LPG  
Carriers



Oil Tankers



Gas plants and  
facilities



Chemical Plants



Offshore platforms  
with flammable gases

# HIGHLIGHTED FEATURES

## Saves Time & Labour

2 people weighing = 15 mins 1 person  
Portalevel® = 30 secs;  
Suitable for all level of skill from  
technicians to chief engineers

## Advanced Calibration Features

Equipped with three intelligent  
calibration modes, offering precise  
and adaptable performance, catering  
to diverse cylinder types and agents.

## Reliable

Accurate to +/- 1.5mm the  
true liquid level

## Improve Asset Safety

Protection continues, no need to shut down  
system. Specifically for use in explosive  
environments

## Application Versatility

From LNG & LPG Carriers to chemical  
plants, it could monitor fire suppression  
systems in volatile atmospheres.

## ATEX & IECEx Certified

Approved for use in Zone 1 & 2 hazardous  
areas worldwide, ensuring compliance in the  
most demanding environments



## Save Time & Cost

Quick and easy liquid level  
detection with clear visual  
display. 4 power modes (SPA)  
for different type of cylinders.

## Accurate

+/- 1.5 mm to the true liquid level

## Safe & Non-Invasive

For Zone 1 and Zone 2  
Hazardous Environments  
No dismantling of the fire  
system is required

# DUAL CERTIFICATION



Coltraco's **Portalevel® Intrinsically Safe** now with **dual ATEX (II 2G Ex ib IIA T4 Gb) and IECEx (Ex ib IIA T4 Gb) certification**, significantly enhances safety and compliance for monitoring of liquid levels in hazardous environments. It meets stringent safety standards for explosive atmospheres, making it suitable for use **globally in both Zone 1 and Zone 2 hazardous areas**.

The device measures liquid levels contained in fire suppression cylinders in hazardous zone environments. The dual certification allows for **global compliance** and offers the **long-term benefits** of **safer testing practices**, **no downtime** and confidence that the liquid levels are where they need to be

- The ATEX standards certified are: EN IEC 60079-0:2018 and IEC 60079-11:2023
- The IECEx standards certified are: IEC 60079-0:2017 and IEC 60079-11:2023

# FIND OUT IF YOU NEED INTRINSICALLY SAFE

If you are maintaining fire suppression systems to identify cylinder contents of liquefied agents e.g. CO<sub>2</sub>, clean agent etc, in areas where you require hazardous zone approved (**Zone 1**) instrumentation, you should use the **Portalevel® INTRINSICALLY SAFE**. It is safer than weighing.



↑  
\*Specific  
Marking for  
Explosion  
Protection

**Explosion Proof II** – For use everywhere (above ground) except underground mines.



↑  
\*Environment

**Hazard G** – Suitable for gas, vapour and mists

**IIA**

↑  
Gas group

**Gas Group IIA** – Suitable for flammable gases like methane, propane, acetone, kerosene or petrol.

**Gb**

↑  
Equipment  
Protection Level

**Explosion Protect Level Gb** – For use in Zone 1 and Zone 2.

**T4**

↑  
Temperature  
Class (T1-T6)

**Temperature Class T4** – Maximum surface temperature of the environment must not exceed 135 °C. This is when the flammable gases will ignite.

**ib**

↑  
Type of  
Protection

**Type of protection ib** – Intrinsic Safety. Intrinsic Safety is a design technique applied to electrical equipment and wiring for hazardous locations. The technique limits energy, electrical and thermal to a level below that is required to ignite a specific hazardous atmospheric mixture.

**Category 2** – Intended for use in areas where an explosive atmosphere is likely to occur in normal operation and must ensure a high level of protection. Examples of these areas are environments with gas, vapour and mist (Zone 1 and 2) such as:

- LNG Tankers
- Offshore Platforms with flammable gases
- Breweries
- Chemical plants
- Petrochemical
- Hazardous material storage facilities
- Automotive paint booths
- Gas plants and facilities
- Aircraft hangers
- Fuel servicing areas
- Mining





# STAY COMPLIANT WITH REGULATIONS

## ISO 14520-1:2015 (Gaseous fire-extinguishing systems – Physical properties and system design – Part 1: General requirements)

Chapter 9.2 Inspection, 9.2.1 General

**9.2.1.3:** The storage container contents shall be checked **every 6 months** as follows:

1. Liquefied gases: for halocarbon agents, if a container shows a loss of agent in quantity of **more than 5%** or a loss of pressure (adjusted for temperature) of more than 10%, it shall be refilled or replaced

### Annex F – System Performance Verification

1. **Every 6 months:** perform the following checks and inspections:

- a. for liquefied gases, check weight or use a liquid level indicator to verify correct content of containers; replace or refill any showing a loss of more than 5%



## NFPA 2001:2018 (Standard on Clean Agent Fire Extinguishing Systems)

### Chapter 8 Inspection, Servicing, Testing, Maintenance, and Training

**Clause 8.3 Semiannual Service and Inspection.** At least semi-annually, the agent quantity and pressure of refillable containers shall be checked

**Clause 8.3.1** For halocarbon clean agents with a means of pressure indication, if a container shows a loss in agent quantity of more than 5 percent or a loss in pressure (adjusted for temperature) of more than 10 percent, it shall be refilled or replaced

**Clause 8.3.6** Where the quantity of agent in the container is determined by special measuring devices, these devices shall be listed

## NFPA 12:2018 (Standard on Carbon Dioxide Extinguishing Systems)

### Chapter 4 General Information

#### Clause 4.8 Inspection, Maintenance and Instruction

##### Clause 4.8.3 Maintenance

##### Clause 4.8.3.5 High Pressure Cylinder Weights

**Clause 4.8.3.5.1** At least **semi-annually**, all high pressure cylinders shall be weighed, and the date of the last hydrostatic test noted

**Clause 4.8.3.5.2** If, at any time, a container shows a loss in net content of more than **10%**, it shall be refilled or replaced



# WHATS IN THE BOX?




- Portalevel® INTRINSICALLY SAFE Main Unit
- Portalevel® INTRINSICALLY SAFE Sensor
- Ultrasonic Gel
- 8 x Energizer L91 (Ex-rated) AA Batteries
- 125ml Bottle of Ultrasonic Gel
- Infrared Thermometer
- Operating Manual
- Calibration Certificate
- Robust Carrying Case

## BENEFIT FROM WARRANTY AND SUPPORT

- Main Unit: 3 years
- Sensors: 1 year
- Lifetime customer support



# CHOOSE FROM OUR PRODUCT RANGE

			
FEATURES	Portalevel® IS	Portamarine®	Portalevel® MAX PLUS
RINA Approved	✗	✓	✓
Intrinsically Approved	✓	✗	✗
Multi-Bank Extension Rod	✓	✓	✓
For water and liquid CO2	✓	✓	✓
Find the level within 30 sec.	✓	✓	✓
For a wide range of agents (FM-200, Novec 1230, FE-13, FE25, halons and many more)	✓	✓	✓
Accurate to +/- 1.5mm	✓	✓	✓
For thicker cylinder types	✓	✗	✓
UL Listed, ABS Type Approved	✗	✗	✓
Price	£££	££	£££

# TECHNICAL DATA

Dimensions	Height: 215mm Width: 82mm Depth: 30mm Weight: 480g
Sensor	34mm diameter head, contained within a magnetic sensor applicator Connects to main unit via BNC and 1m co-axial cable
Accuracy	± 1.5mm or ± 1/16 inch of the true level
Power Supply	215mm (L) x 82mm (W) x 30mm (D)
Display	4 x Energizer L91 AA Batteries Only permissible batteries to retain ATEX approval Two sets provided with unit
ATEX Rating	II 2 G Ex ib IIA T4 Gb
IECEx Rating	Ex ib IIA T4 Gb
Operating Temperature	-20°C to +40°C / -4F to 104F
Warranty	Main unit – 3 Year Warranty Sensor – 1 Year Warranty Technical Support – Lifetime of the unit

## CUSTOMER TESTIMONIALS

Fakrul ★★★★★

“ Thanks for this awesome tools that make my job easy to complete and monitored. A support system also help me a lot. Good job coltraco. ”



# OUR THROUGH-LIFE COMMITMENT TO YOU

**We look after our customers throughout the lifetime of your equipment.**

Every main unit is supplied with **3 years warranty** and **1 year warranty on its sensors and accessories**.

We are proud to offer free lifetime technical support and online training is available on request with a range of solutions designed to meet your calibration requirements:



## Onshore Calibration

This can be done in our UK laboratory or in one of our 11 ODA Service Centres present globally

We also support 1-1 exchanges with a pre-calibrated unit to reduce processing time

We also offer a unit collection service for customers who are not used to sending equipment out of their respective countries.

## Remote Calibration

This can be done remotely onboard the vessel by a competent crew member to reduce the hassle of offloading the instrument while the vessel is at sea

# ABOUT COLTRACO ULTRASONICS

Coltraco is ISO 9001:2015 and ISO 14001 approved

*"To see the sounds that others cannot hear"*

*"To measure the hitherto unmeasurable"*

Our organisation comprises:

- Our **Company**
- Our **Laboratory**, co-located with the Centre for Advanced Instrumentation at Durham University
- Our **Research Organisations**, the Durham Institute of Research, Development & Invention (DIRDI)
- Our **Centre for Underwater Acoustic Analysis** (CUAA)

Engaged in Research, Design, Development, Manufacture, Integration & Sustainment of high-exporting advanced technology systems, products and services.

We monitor and measure an array of specialised environments to deliver the Safesite™ on land and the Safeship™ at sea.

## BY BEING SCIENCE-LED:



We identify and nurture brilliant minds, creating a unique research environment at Durham University, which is a globally outstanding centre of teaching and research excellence.



In our research at DIRDI, we undertake fundamental research into the physical laws of the universe, alongside applied research in Physics, Mathematics, Engineering and Computer Science in acoustics, electromagnetism and information engineering.



It is this research and manufacturing excellence, and our enduring commitment to the sustainment of our technologies in the field, that makes Coltraco Ultrasonics the partner of choice for customers and distributors in 120 countries.



We deliver genuine value for our customers through our scientific and institutional values, and the global quality of our commercial and technical services.

### Safeship™

Today our instruments are aboard 17% of the world's 60,000 ships, preventing ships' catastrophic failure, by monitoring watertight integrity on the one hand, and the safe contents of fire extinguishing gases such as CO<sub>2</sub>, on the other. These are the basic principles by which we became a Safeship™ company in the maritime sector.

### Safesite™

Our instruments serve over 20 market sectors, to ensure that safety critical systems, such as gaseous fire suppression systems, sprinkler systems and process control equipment, in high value assets always work effectively, and in the Built Environment, the ability to concurrently identify airtightness and energy loss. This is how we are a Safesite™ company, on land.

## Contact and support

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British manufacturer of ultrasonic technologies, exporting to 120 countries and twice winners of The Queen's Award 2019 and 2022.

