COLTRACO
Ultrasonics | since 1987




# PORTALEVEL® ADVANCED

## Handheld Ultrasonic Liquid Level Indicator

Made in the UK.

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WWW.COLTRACO.COM/COLTRACO-PRODUCTS/PORTALEVEL-ADVANCED/

# INTRODUCING THE PORTALEVEL® ADVANCED

**The Portalevel® ADVANCED** is a portable, non-invasive ultrasonic liquid level indicator designed for measuring the content of fire suppression agents in seamless or welded single-skin cylinders.

A novel sensor directs ultrasound around the circumference of the cylinder which paired with a “peak tracking” algorithm ensures the correct ultrasound signal is measured each time. This results in accurate measurements to **±1mm** of the true liquid level for cylinder diameters ranging from 110mm to 700mm. A clear GAS/LIQUID indication, combined with a view of the ultrasonic signal using the built-in oscilloscope, reduces uncertainty and simplifies the operator's ability to differentiate between gas and liquid, improving accuracy during inspections. The two-point calibration procedure enables a measurement to be taken in under 30 seconds, significantly reducing downtime compared to traditional methods such as weighing.

**Type:** Portable Ultrasonic Liquid Level Indicator
**Function:** Non-invasive liquid level detection of various marine fire suppression agents, such as; CO2, FM200™, NOVEC™ 1230, old Halon agents, FE-13™, FE-25™, NAF S III™ and all core Clean Agent systems.
**Part Number:** 2290334-ADV
**IMPA P/N:** 652776
**Standards:** UKCA, CE, Coltraco is ISO 9001 and ISO 14001 approved




# APPLICATIONS

The adaptable **Portalevel® ADVANCED** can be used on many cylinder types:



**CO2 Fire Cylinders**



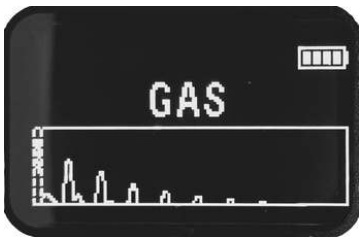
**NOVEC™ 1230 Fire Cylinders**



**FM200® Fire Cylinders**

# HIGHLIGHTED FEATURES

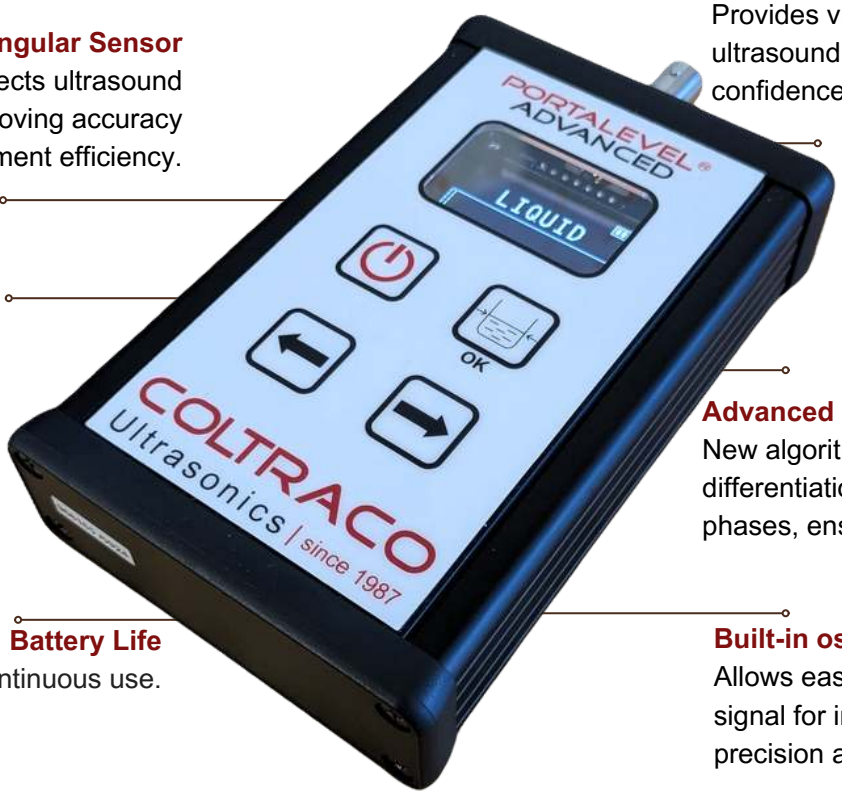



**Optimised Rectangular Sensor**
Enhanced design directs ultrasound more effectively, improving accuracy and measurement efficiency.

**Signal Viewer**
Provides visual feedback of the ultrasound signal, increasing confidence in measurements.

**Faster Testing**
Simplified 6-step procedure for quicker operation, reducing testing time.




**Advanced Signal Processing**
New algorithms provide clearer differentiation between gas and liquid phases, ensuring precise results.

**Extended Battery Life**
24 hours of continuous use.

**Built-in oscilloscope**
Allows easy viewing of ultrasound signal for improved measurement precision and troubleshooting.

# WHY PORTALEVEL® ADVANCED?

**Non-invasive**
- No system downtime, ensuring safe and continuous operation.

**Rapid Measurement**
- Provides results in under 30 seconds—significantly faster than weighing.

**Portable & Versatile**
- Quickly measures cylinders of various sizes and types.

**Long Battery Life**
- 24 hours battery life using AAA batteries.

**Clear Display**
- The intuitive OLED screen clearly shows the cylinder contents, whether “GAS” or “LIQUID.”

**Lifetime Support**
- Coltraco Ultrasonics provides continuous technical support throughout the product's lifecycle.

# COLTRACO'S PORTALEVEL® JOURNEY

With over 30 years of expertise in ultrasonic liquid level indicators, Coltraco Ultrasonics is a global leader in precision instrumentation. Manufactured to the highest standards in the UK using premium materials, **Portalevel® ADVANCED** offers unmatched value, reliability, and innovation.






**2025**

The **Portalevel®** is a portable ultrasonic liquid level indicator that was first developed in **1987** by Coltraco Ultrasonics.

We have since developed more than 10 models under this range.





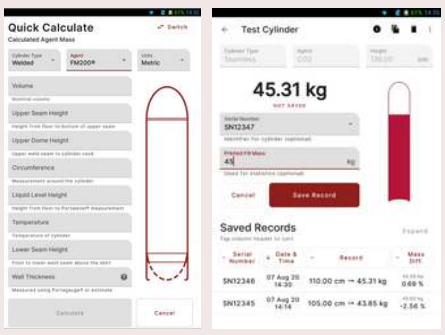

# PERFECT WITH THE PORTASTEELE® CALCULATOR




With **Portasteele® CALCULATOR**, the liquid level from the Portalevel® are converted to a fully traceable agent weight. This is the only documented evidence of cylinder contents from the fire suppression system manufacturer.

There is **no other ultrasonic liquid level indicators commercially available** that can provide such traceability which is a result of decades of research into fire suppression system cylinders and agents.

- Both liquid level height and agent weight data can be obtained without needing to physically dismantle and weigh the cylinders
- Minimises system downtime
- Reduce operational risks and costs



# 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, Clause 9.2.1, **9.2.1.3**: The storage container contents shall be checked **every 6 months** as follows:

- 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**

- **Every 6 months**: perform the following checks and inspections:
- 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(s) 8.3, 8.3.1, 8.3.6**

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

**Chapter 4 General Information, Clause(s) 4.8, 4.8.3, 4.8.3.5, 4.8.3.5.1, 4.8.3.5.2**




# PART OF A WORLD LEADING RANGE




## PORTALEVEL® LITE

**Best for:**

- Low cost, simple, but highly accurate testing of fire suppression cylinders




## PORTALEVEL® ADVANCED

**Best for:**

- Analytical fire cylinder level measurement with precise identification




## PORTALEVEL® MAX PLUS

**Best for:**

- UL-listed, NFPA & ISO compliant measuring of fire cylinder contents




## PORTALEVEL® IS

**Best for:**

- Dual certified ATEX and IECEx for Zone 1 hazardous environments

# TECHNICAL DATA

| | |
|---|---|
| **Dimensions** | **120mm (L) x 78mm (W) x 27mm (D)** |
| **Unit Weight** | **300g** |
| **Cylinder Compatability** | **Works on most single-skinned cylinders, operational range may vary depending on the cylinder contents. Typical cylinder diameter: 110mm – 700mm** |
| **Agent Types** | **Carbon Dioxide (CO2 ), Halon fire agents (Halon 1211, Halon 1301, Halon 2402), FE-13 , FE-25 , Clean Agents (Novec 1230, FM200 )** |
| **Accuracy** | **Down to ± 1mm of true liquid level** |
| **Display** | **1.54” 128x64 OLED** |
| **Additional Features** | **Displays cylinder phase “GAS” or “LIQUID”. Can be used alongside the Portasteele® CALCULATOR (sold separately) to quickly convert the liquid level to the agent weight. Comes with Infrared thermometer to allow an operator to measure the cylinder temperature at the time of measurement.** |
| **Power Supply** | **4x LR03 (AAA) cells for up to 24 hours of operation.** |
| **Operating Temperatures** | **Main Unit: -10°C to +65°C Sensor: -10°C to +65°C** |
| **Sensor** | **Piezoelectric crystal sensor made from stainless steel. Connects via a 1m BNC coaxial cable.** |
| **Certifications** | **CE, UKCA Coltraco is ISO 9001:2015 and ISO 14001 approved** |
| **Warranty** | **Main Unit: 3-Year Warranty Sensor: 1-Year Warranty Technical Support: Lifetime of the unit** |

# WHATS IN THE BOX?

- Portalevel® ADVANCED Main Unit
- Handheld Ultrasonic Sensor
- Infrared Thermometer
- 2x Water-based Ultrasonic Couplant Gel
- User Manual
- Calibration Certificate
- Robust Carrying Case




# BENEFIT FROM WARRANTY AND SUPPORT

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

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

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)

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

***"To measure the hitherto unmeasurable"***

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 CO2, 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.