



PORTALEVEL® MAX PLUS

Advanced Ultrasonic Liquid Level Indicator
for Fire Cylinders

Made in the UK.

INTRODUCING THE PORTALEVEL® MAX PLUS

Coltraco's **Portalevel® MAX PLUS** is our high-spec UL listed addition to our line of handheld, battery powered liquid level indicators. With the **Portalevel® MAX PLUS**, an operator can rapidly and reliably detect the liquid level within a fire cylinder, with clear GAS / LIQUID interface, with an accuracy of $\pm 1.5\text{mm}$ in under 30 seconds.

Type: Portable Ultrasonic Liquid Level Indicator

Function: Non-invasive liquid level detection of various fire suppression agent, 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-COMXPS

Approvals: UL Listed, RINA Accepted, ABS Type Approval.

IMPA P/N: 652776

Standards: UKCA, CE, Coltraco is ISO 9001 and ISO 14001 approved



APPLICATIONS

The adaptable **Portalevel® MAX PLUS** can be across a variety of fire extinguishing systems, including:



**CO₂ Fire
Cylinders**



**NOVEC™ 1230
Fire Cylinders**



**FM200® Fire
Cylinders**

HIGHLIGHTED FEATURES

Portable

Portable hand-held device designed to be used by 1 person

Minimise risk

No heavy lifting or accidental discharges when weighing

Improve asset safety

Keep cylinders in-situ and fire suppression system on

Three Calibration Modes

For accuracy on a wide range of agents and cylinders of varying size/type and condition

Faster Measurement

5-25 seconds compared to 15 minutes by weighing

Intuitive Display/Operation

Display for use with minimal training

Reliable

Accurate to +/-1.5mm of the true liquid level

Regulation Compliant

UL Listed, RINA Accepted, ABS Type Approved



THE NEW PORTALEVEL® MAX PLUS

GAS/LIQUID Screen Indication

- Intuitive user interface indicates **GAS** or **LIQUID** depending on where the sensor is placed on the cylinder.



Intuitive Display

Three Calibration Modes

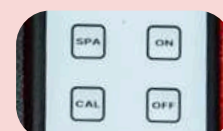
- Carefully configured to cater for the different fire suppression cylinders / agents you measure.
- Ensures greater control and success rate when testing, especially on old, damaged or challenging cylinders.

Four Power Settings Increase Gain

- 4 settings ensure the returned ultrasound signal is sufficiently amplified to be easily detected by the transducer.
- Ensures the most accurate measurement possible.

Tactile Buttons

- Improved ergonomics give users greater feel and confidence when operating the **Portalevel® MAX PLUS**.



TESTIMONIAL

David L Delaney ★★★★★

“ This tool is precise, cut cylinder handling and testing time in half. Employee safety factor he plus, not have to remove and weigh the cylinders. The tablet option was plus as well all need is right there for keeping a downloadable record of testing information, highly recommend this investment. I will defiantly purchase more units as company growth continues. ”

James Ditchfield ★★★★★

Verified Reviewer

“ Great service from first contact to order fulfilment ”

We ordered the first unit as a trial because our current units, made by another manufacturer were inaccurate in the results they gave. All our Engineers were very impressed with the accuracy and ease of use, so much so we have ordered another. Thanks to Karen and Lizzi for all their assistance and great customer service.



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. ”

In just one week, they successfully tested 220 CO2 and 80 FM200® cylinders!



CASE STUDY: PRODUCTS USED ON US COAST GUARD MULTHROPE, GLEN HARRIS, AND ROYAL NAVY HMS LANCASTER



In their recent testimonial, Khayber Fire and Security Systems WLL details their journey with Coltraco Ultrasonics' cutting-edge technology, specifically our **Portalevel® MAX PLUS** and **Portasteele® CALCULATOR**.

The Sales & Technical Engineer was highly impressed by the Portalevel and **Portasteele® CALCULATOR**'s effectiveness, which has led to substantial cost savings for their operations. Traditionally, servicing the 500LB cylinders required a team of 4-5 people due to their weight and the challenge of moving them. However, the Portalevel has made this task significantly easier, especially in confined spaces like those on the Multthrope, Glen Harris, and HMS Lancaster vessels, where manual cylinder dismantling is impractical. **The Royal Navy has expressed satisfaction with Khayber's work and has committed to awarding them the next contract.** Khayber takes great pride in this achievement and has thanked us for our assistance in securing this business opportunity.

CASE STUDY 2: COST SAVING BENEFITS OF THE PORTALEVEL® MAX PLUS

A testimonial we received from NAF Fire, Jordan, on the **Portalevel® MAX PLUS**

“**Portalevel® MAX PLUS** completes the semi annually measurements in the combination of a swift, simple, accurate manner.

- Cylinders do not need to be detached and sent to a service providing company to measure the weight of the agent.
- Substantial cost reduction
- Time efficient
- Labor efficient
- Full support from manufacturer over devices
- Portable devices that could test different sites using the same process
- Extremely accurate results”

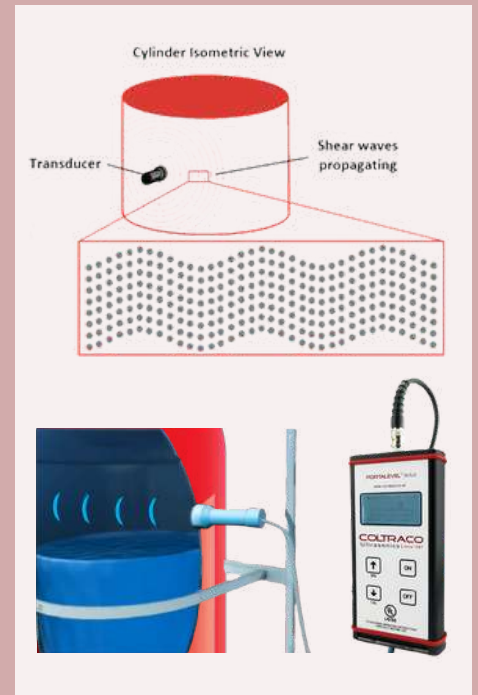
Old Method (Manually Weighing cylinders) VS
Portalevel® MAX PLUS - Comparison Table

Parameters	Old Method	Portalevel® MAX PLUS
Labour	6 people / outsourced	1-2 personnel from the owner's establishment
Time consumption	2-6 days	10 minutes per cylinder
Number of tests per year	2 times as per regulations	Unlimited
Dismantling	Must dismantle every cylinder on its own	No dismantling needed
Gas Loss	At best 2 kgs for every test and every cylinder	Zero gas loss
Cost efficiency	Around 4,800 USD* for 2 cylinders / GBP 3,600 POUND per year	Around 4,200 USD* to inspect any number and type of cylinder. Along with the Portasteele® CALCULATOR & complete technical and aftersales support with training and warranty

SIMPLE YET EFFECTIVE

Portalevel® MAX PLUS's exceptional accuracy is matched only by its ease of use.

1. An ultrasonic pulse is emitted by **Portalevel® MAX PLUS**'s transducer into the cylinder.
2. The signal is reflected, returned, and analysed to determine if the contents at that level are a liquid or gas.
3. After pressing the CAL button, the sensor can be moved up or down the cylinder to accurately find the liquid/gas boundary. This process can take under 30 seconds with a skilled operator.



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



WHAT'S IN THE BOX?

- Portalevel® MAX PLUS
- Handheld Ultrasonic Sensor
- Ultrasonic Couplant
- Infrared Thermometer
- Operating Instructions
- Calibration Certificate
- Robust Carrying Case



BENEFIT FROM WARRANTY AND SUPPORT

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

CHOOSE FROM OUR LEVEL RANGE



FEATURES

	Portalevel® IS	Portalevel® LITE	Portalevel® MAX PLUS
RINA Accepted	✗	✗	✓
Intrinsically Safe (ATEX, IECEx)	✓	✗	✗
For CO2 and liquified clean agents	✓	✓	✓
Find the level within 30 sec.	✓	✓	✓
Accurate to +/- 1.5mm	✓	✓	✓
For thicker cylinder types	✓	✗	✓
UL Listed, ABS Type Approved	✗	✗	✓
Price	£££	£	£££

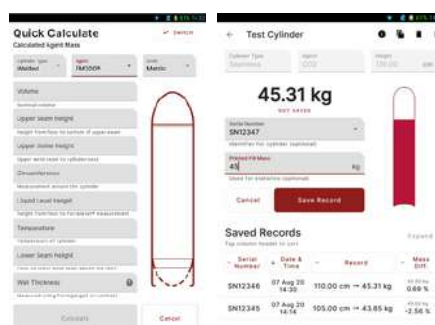
TECHNICAL DATA

Dimensions	167x82x30 mm (L x W x D)
Unit Weight	300g (with batteries)
Accuracy	±1.5 mm (±1/16 inch)
Sensor Type	14mm diameter magnetically mounted
Sensor Frequency	1 MHz
Sensor Connectivity	1 m BNC coaxial cable.
Power Supply	1 x PP3 9V battery
Battery Life	10 hours continuous use
Display	55 x 28 mm backlit LCD
Operating Temperatures	-10 °C to +65 °C (14 °F to 149 °F)
IP Rating	IP65 Rating (Enclosure)
Classifications & Approvals	UL Listed, RINA Classification Society Approval, ABS Type Approved
Registrations	CE, UKAS, Coltraco is ISO 9001 and ISO 14001 registered
Warranty	Main Unit: 3-Year Warranty Sensor: 1-Year Warranty Technical Support: Lifetime of the unit

PERFECT PARTNER TO PORTASTEEL® CALCULATOR



1. **Input** your cylinder details and liquid level (as found by Portalevel® MAX PLUS),
2. **Calculate** in under 30 seconds
3. **Save** your results in a spreadsheet and export to the manager/customer thereby enhancing service reports.



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 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.

