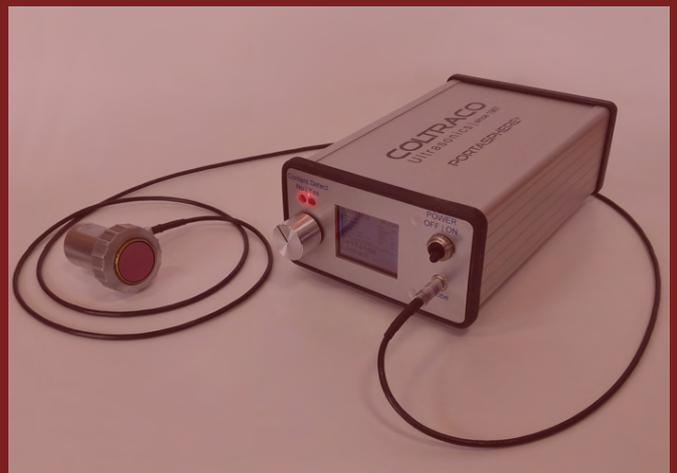


PORTASPHERE™

PORTASPHERE™

TECHNICAL SPECIFICATIONS



COLTRACO
Ultrasonics | since 1987

Official Benelux dealer :



OUR MISSION: THE SAFESHIP™ & THE SAFESITE™

We welcome you into our mission to create accurate, reliable and easy to use instrumentation, which enhances our customers' safety management.

The issue is not just about compliance with the regulations; it is about the safe ship offshore and the safe site onshore.

This helps our customers to ensure lower risk, higher protection and business continuity.

Safety for safety's sake.

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INTRODUCING THE PORTASPHERE™

TYPE: Portable Ultrasonic Non-Invasive Liquid Level Indicator

FUNCTION: designed for testing spherical containers of liquefied gaseous fire suppressant agent

PART NUMBER: 2290334-SPHERE



FUNCTION

The PortaspHERE™ is the 9th generation unit of its kind. It is the first ultrasonic liquid level indicator of its kind designed precisely to test spherical containers of liquefied gaseous fire suppressant agent.

Ideal for testing in difficult to access areas where it is not feasible to have the standard style of cylinder to contain the agent and thus the spheres are suited for small, often high up areas. Traditional method of weighing cylinders is therefore much more difficult, which is where the ability to use a handheld lightweight instrument to measure the agent contents is beneficial.

High rate discharge containers are often in close proximity of the high value equipment or article that is to be protected. Regulation requirements inspection every 6 months for 5% weight or 10% loss in pressure.

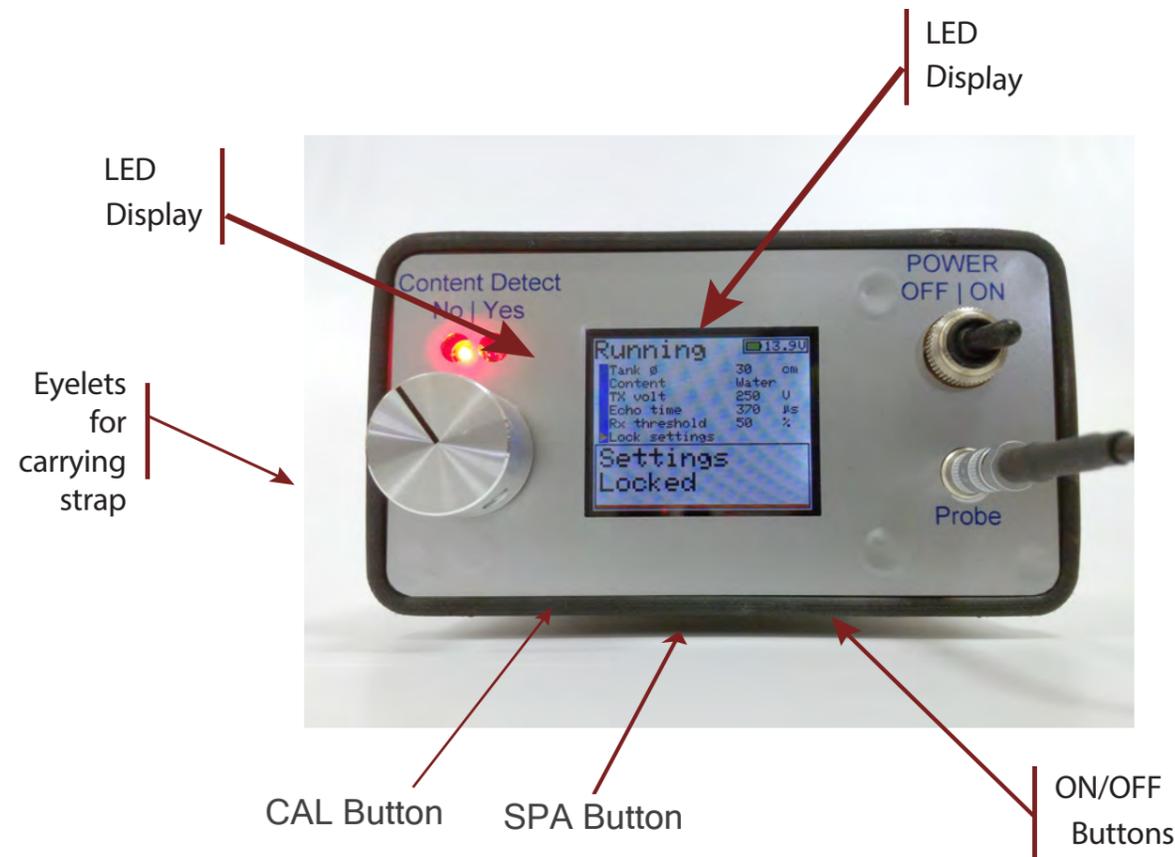
The Portalevel® range is used for identifying the content of critical fire suppression cylinders. A wide variety of fire suppressant agents can be monitored including: CO₂, Dupont™, FM-200™, NOVEC™1230, old Halons such as 1301 and 1211, FE-13™, FE-25™, FE-36™ and HFC-225 & 227.

- Introducing the first in the world designed to measure liquid level in spheres!
- **Portable:** enabling operators to reach hard to access areas
- **Advanced:** using the very latest technology designed in alongside leading physicists

3 CORE BENEFITS

1. **Fast and reliable indication:** By utilising the Portasphere[®], the agent's liquid level which is an indication of its contents can be found non-invasively without the need to dismantle the setup thus saving time and cost of inspection.
2. **Enhances safety:** Currently, qualified personnel are required to remove and weigh all agent storage spheres. Due to the heavy nature of these spheres, this method is not only cumbersome but dangerous to the personnel as well.
3. **World first:** The first ever liquid level indicator to work on spheres.

World first: The first ever liquid level indicator to work on spheres.



The Portasphere[®] adopts the technology from our flagship model Portalevel[®] MAX for liquid level indication of fire suppression cylinders. This technology has been refined to enable high accuracy of liquid level identification up to +/- 10mm. The Portasphere[®] currently works on a pre-defined set of sphere dimensions and clean agents which can be easily expanded and customised by our team to specifically suit your application.

The Portasphere[®] can be used on a variety of sphere sizes currently from diameter 30 cm up to 90 cm but fully customisable to suit any desirable sphere size. The current agents that the unit detects are Water, NOVEC[®] 1230 and FM-200[®] and again, customisable to suit any desirable agent that you wish to measure.

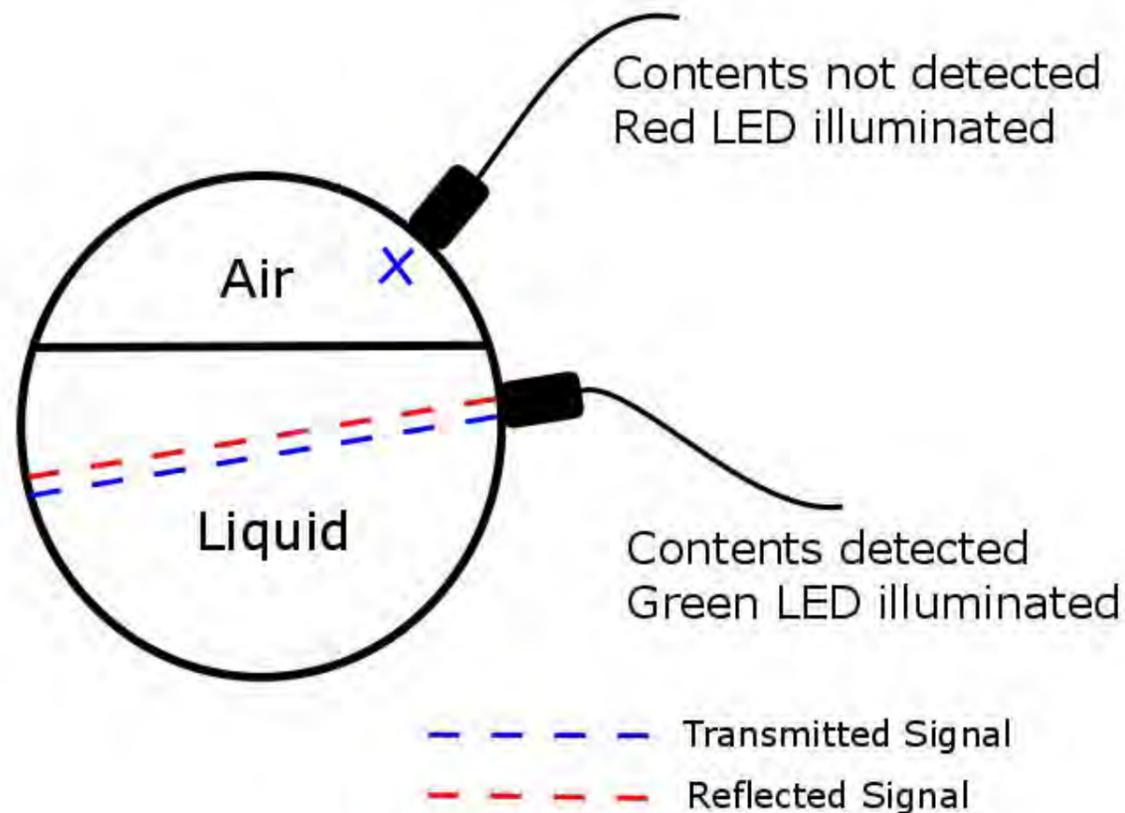
ADVANTAGES

- **ACCURACY:** This technology has been refined to enable high accuracy of liquid level identification up to +/- 10mm
- **CUSTOMISIBLE :** for different agents upon request. The Portasphere[®] is fully customisable by our team to suit any spherical containers or agents that you have to ensure high levels of reliability.
- **QUICKER:** Reduces the need to dismantle and weigh the spheres. Non-invasive.
- **EASE OF USE:** One-man operation.
- **PROVEN TECHNOLOGY:** Based on the established Portalevel[®] generations which have gone before which are based on reliability, longevity, accuracy and ease of use.

OPERATION & HOW IT WORKS

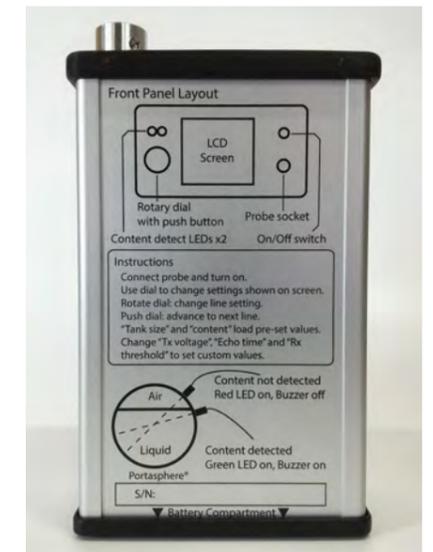
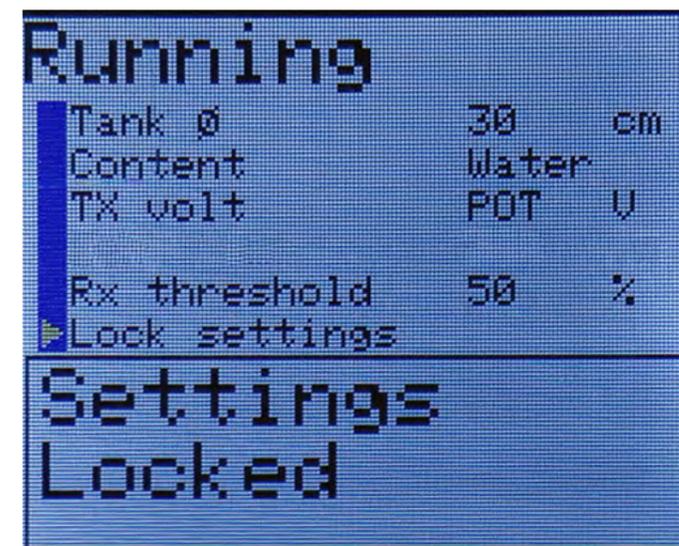
The Portasphere[®] works on a basic pulse-echo theory where a single transducer is used to emit a 2 MHz pulse into a sphere, which then travels across the diameter of the sphere and reflects back from the far wall if liquid is present on the other side of the wall to conduct the signal. If liquid is not present, the ultrasound wave is not conducted through air and the Portasphere[®] will not give a positive readout.

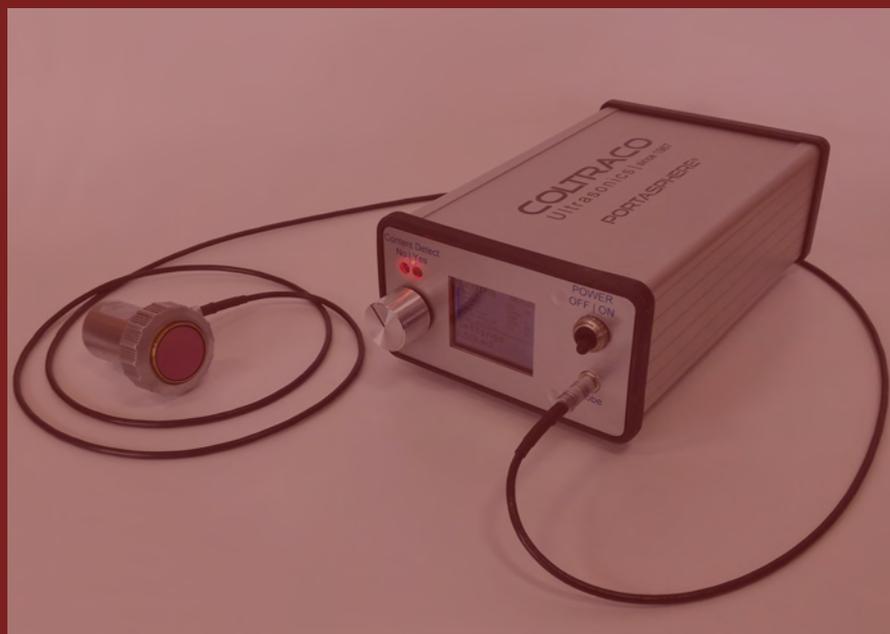
- Preparation:** This is a crucial step to ensure the unit functions as intended and the spheres are prepared in a way to give the most accurate readings.
- Calibration:** This test allows you to determine the exact transmitting and receiving voltage required for maximum accuracy on the spheres intended to be tested. Performing the calibration step ensures 100% accuracy and without the need to alter the values again throughout the testing session on similar spheres.
- Testing:** There are 3 methods to conduct testing, each method specific to a certain sphere diameter. These methods have been selected based on rigorous experimental testing done in our labs and are the best recommended values to follow.



TECHNICAL SPECIFICATIONS

Manufacturer	Coltraco Limited, 46 Mount Street, London, W1K 2SA, UK
Accuracy	+/- 1cm
Verifiable Liquids/Gases	Water, CO2, FM-200, Novec1230. Customisable to include various other liquids upon request.
Dimensions	185 x 110 x 61 mm
Weight	1.1kg
Power Supply – Battery	10 x AA batteries, lifetime about 12 hours
Controls	????
Display Type	Full colour 1.8" LCD
Government NCage Code	KD983 – Coltraco Limited
Part Number	2290334-SPHER
Operating Temp & Humidity	0-40C; Humidity range 5% to 95%. Some agents can restrict the operating temperature range based on their chemical properties.
IP Rating	64





COLTRACO
Ultrasonics | since 1987

Portasphere® is a product of Coltraco Limited
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