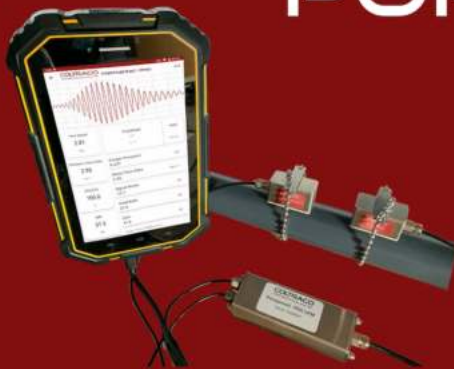


PORTASONIC® PRO



Handheld tablet-based ultrasonic
clamp-on flow meter with
pressure calculation software

Made in the UK.

INTRODUCING THE PORTASONIC® PRO

Portasonic® PRO is a handheld, tablet-based ultrasonic clamp-on flow meter that includes pressure calculation for accurately determining internal pipe pressure based on the measured flow rates.

The **Portasonic® PRO** combines the functionality of the **Portasonic® PLUS** in measuring flow rates non-invasively with the **Portasonic® CALCULATOR**, which is the first instrument capable of determining the internal pressure within pipes, using external flow technology.

Measure your liquid flow rates non-invasively and calculate internal pipe pressures **all in one tool**.

Type – Portable, tablet-based ultrasonic clamp-on flow meter with pressure calculation software

Part Number – 2618949-PSOPRO



APPLICATIONS

The adaptable **Portasonic® PRO** can be used in many industries such as:



**Fire Sprinkler
System**



**Water &
Wastewater**



**Fuel
Monitoring**

HIGHLIGHTED FEATURES

Data-logging capabilities

Track and analyse millions of flow and pressure data points over time with precision and ease

Traceable

Save data to records and export via USB or email to ensure traceability

Accurate

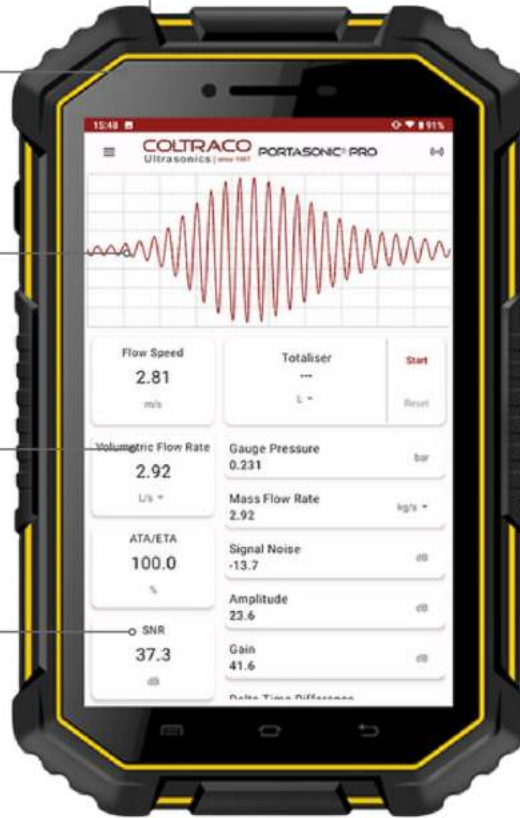
Accounts for temperature and material roughness to produce results of the highest possible accuracy

Streamlined process

Measure flow rates non-invasively and calculate pressure quickly and easily using an intuitive touchscreen tablet

One instrument with two functions

Clamp on, portable and non-invasive = allows a single instrument to be used across multiple different pipes / pipe sections. Calculate and Store Flow and Pressure readings directly on the tablet under one instrument, two functions



No installation costs

Eg. drilling into pipes = no downtime to the pipe network

No pressure loss

No contact with the fluid being measured = no risk of pressure loss throughout your pipe network

Longer life / Lower costs

As the Portasonic® PRO is non-invasive, and the sensors are not in contact with the fluid, they cannot be damaged or degraded by pressurised fluid flow, as inline flow meters often are. This contributes to a longer lifespan and lower maintenance costs associated with the Portasonic® PRO versus inline flow meters

Safe

Determine if your pipe is pressurised to within a safe tolerance

WHY MEASURE INTERNAL PIPE PRESSURE?



Make sure you do not exceed safe tolerances

To keep pipes within safe tolerances, the pressure in a pipe system must be closely monitored to ensure it does not exceed safe tolerances. Critically high pressures can lead to pipe failure, damage to property, and risk to personnel.

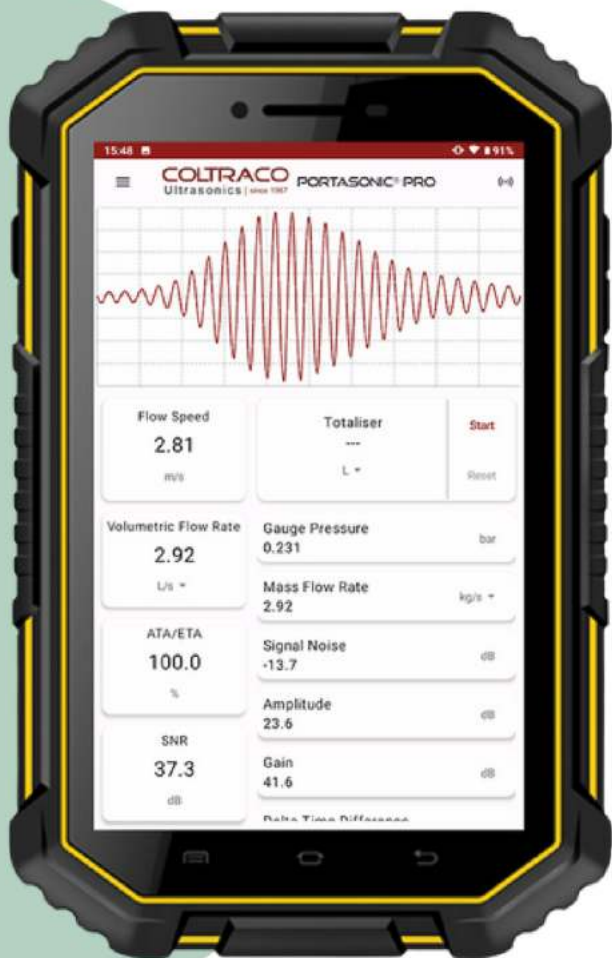


Keep pipes, pumps, and related equipment in good condition

The durability and safe functioning of pipes, pumps, and related equipment are also affected by pressure.

Portasonic® PRO provides you with the knowledge of whether the pressure in a pipe system is as expected, in a safe and sustainable manner.

FLOW AND PRESSURE CAPABILITIES



Measure Flow Rates

Using this integrated device, you can non-invasively and accurately measure liquid flow rates in pipes. It utilizes one of the world's leading non-invasive flow meter technologies, which makes it ideal for a wide variety of maintenance and inspection needs. It is capable of achieving **accuracies of +/- 0.5% of the true flow rate**, ensuring precise measurement every time. The app can store millions of flow and pressure data points.

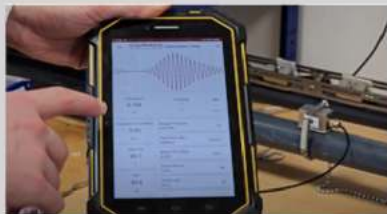
Calculate Pipe Pressure

The **Portasonic® PRO** automatically calculates internal pipe pressures with every reading, with an **accuracy of within 5%**. Separately, there is a Quick Calculate function to instantly obtain the pressure of more than 15 different fluids and over 14 common pipe materials, with the ability to input custom fluids or materials to meet specific needs.

Fluid Types	Pipe Materials
Water	Carbon Steel
Sea Water	Stainless 304
Kerosene	Stainless 316
Petrol	Cast Iron
Fuel Oil	Ductile Iron
Crude Oil	Copper
Freon R134a	PVC
Freon R22	Lead
Diesel Oil	Nylon
Castor Oil	PE
F-76 Fuel Oil	Aluminium
NOVEC 1230	Asbestos
Glycol/water	Fibre Glass
Alcohol	Other (SoS provided by user on app)
Other (SoS/viscosity/density provided by user on app)	



PORTASONIC® PRO IN ACTION



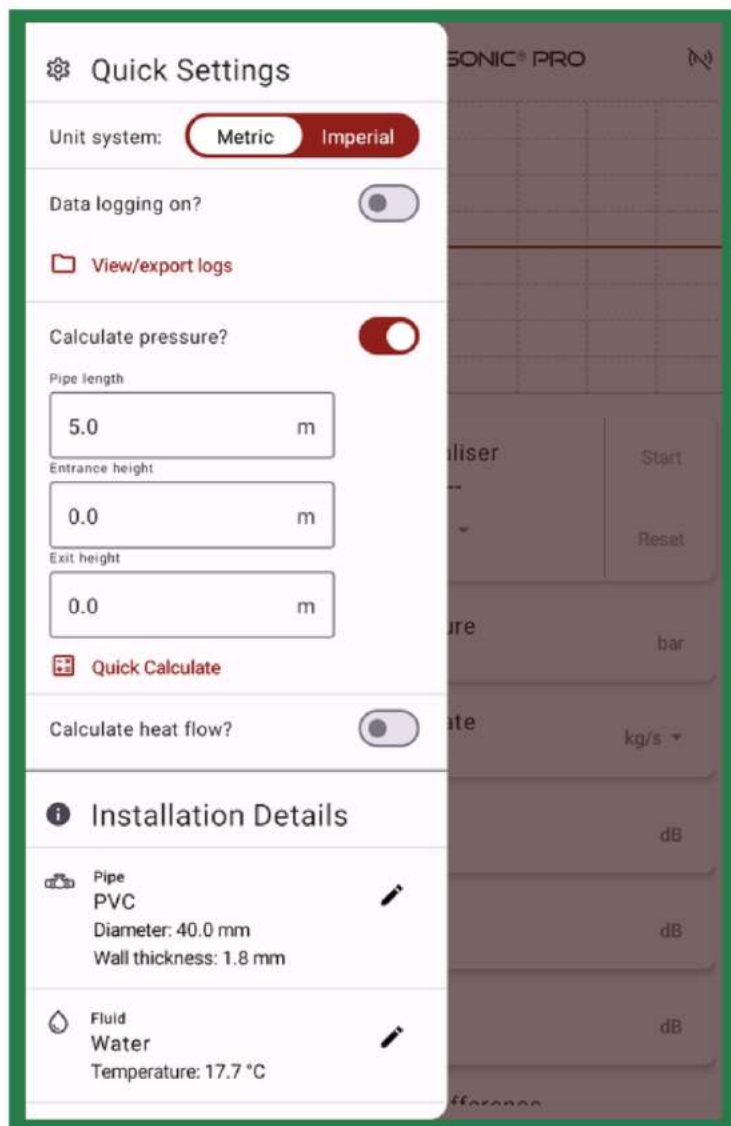
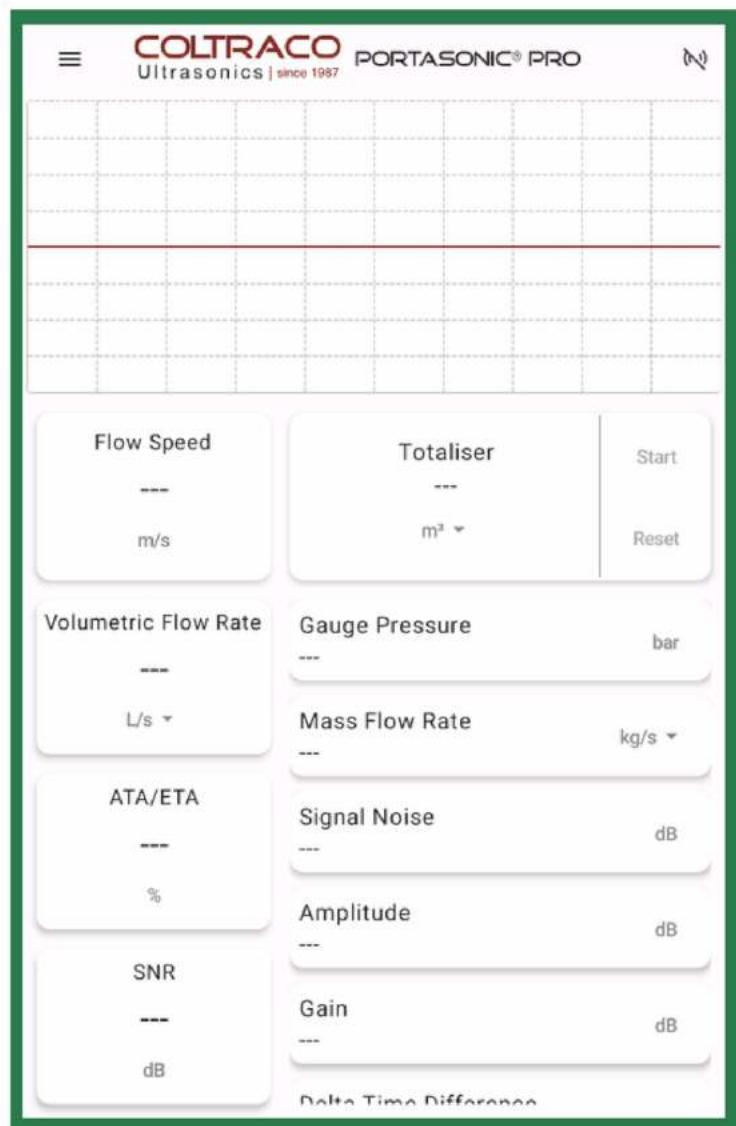
See the Portasonic® PRO in action!

"Demonstration - Portasonic® PRO - Flow Rate Measurement" on YouTube

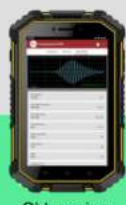
<https://www.youtube.com/watch?v=o0QSQHf9Y0c>

See all the key measurements, such as flow speed, volumetric flow rate, mass flow rate, and other important flow metrics on the main screen.

Easily calculate pressure whilst measuring flow.



Did you know...



Old version



Upgraded!

- Full Portasonic® CALCULATOR integration
- Datalogging capabilities
- Heat Flow measurement incorporated

WHATS IN THE BOX?



- Portasonic PRO 7" tablet
- Processing Unit with Pair of DM10 Standard Sensors for pipes DN15 – DN750 Sensors combined with processing unit
- Pair of Beaded Chain Clamps (set of 2)
- Measuring Tape
- Ultrasonic Couplant
- USB Type-C to USB Type-A adaptor
- USB Type-C Cable
- USB Stick
- User Manual
- Installation Manual
- Calibration Certificate
- Robust Carrying Case

BENEFIT FROM WARRANTY AND SUPPORT

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

CHOOSE FROM OUR RANGE OF ULTRASONIC FLOW METERS



PRODUCT FEATURES	PORTASONIC® PLUS (HANDHELD INSTRUMENT)	PERMAFLOW® (FIXED SYSTEM)	PORTASONIC® PRO (ELECTRONIC TABLET)
Accurate to 0.5%	✓	✓	✓
Volumetric Flow Rate	✓ (various units - l/h, m3/h, etc.)	✓ (various units - l/h, m3/h, etc.)	✓ (various units - l/h, m3/h, etc.)
Mass Flow Rate	✓ (various units - kg/h, kg/m, etc.)	✓ (various units - kg/h, kg/m, etc.)	✓ (various units - kg/h, kg/m, etc.)
Energy (Heat) Flow Rate	✓ (various units - kWh, BTU, etc.)	✓ (various units - kWh, BTU, etc.)	✓ (various units - kWh, BTU, etc.)
Fluid Types (customisable) <i>Database of 14+ customisable fluid types (water, sea water, fuel oils and diesel oils, refrigerants and many more)</i>	✓	✓	✓
Pipe Material (customisable) <i>Database of 12+ customisable pipe materials (carbon steel, stainless steel, aluminium, PVC and many more)</i>	✓	✓	✓
Wall Thickness Gauging	✓	✗	✗
Calculate Pressure	✗	✗	✓
Temperature Compensation	✓ (with manual temperature input)	✓ (automatic input, using PT100)	✓ (with manual temperature input)
Totaliser Capability	✓	✓	✓
Record and Report	✓	✓ (internal and USB)	✓
Battery Operated	✓	✗	✓
Datalogging	✓	✓	✓

TECHNICAL DATA

Dimensions	Tablet – 216 mm (L) x 136 mm (W) x 19 mm (D) Processing Unit – 105 mm (L) x 40 mm (W) x 21 mm (D) Sensors – Standard Model DM10: 40 mm (L) x 20 mm (W) x 25 mm (D)
Weight	Tablet – 558 g Processing Unit & Sensors – 400 g
Pipe Diameter Range	Standard Sensor (Model No. DM10): DN15 – DN750 (1/2" – 30") for 12+ pipe materials, including carbon steel, stainless steel, copper, PVC, or "other" for materials not in our database.
Liquid Types	Preloaded database with 14+ fluid options, including water, petrol, fuel oil, and "other" for fluids not in our database.
Accuracy	Flow Rate: +/- 0.5% of measured value under ideal conditions Pressure calculation: +/- 5% of the internal pipe pressure
Flow Velocity	0.01 m/s – 25 m/s
Resolution	0.25 mm/s
Repeatability	0.15% of measured value
Turndown Ratio	1/100
Measurement Rate	1 Hz
Measurement Unit	Flow Velocity, Volumetric Flow Rate, Mass Flow Rate, Energy Flow Rate (Heat Quantity), Volume, Pressure
Sensor Material	Housing: Stainless steel Front Face: PEEK (polyetheretherketone)
Cable Length	1.5 m as standard (additional lengths available upon request)
IP Rating	Tablet – IP67 Sensors – IP66
OS	Android 9.0
Battery	Built-in 8000 mAh rechargeable Li-ion battery Continuous operation minimum of 10 hours
Standby time	Up to 200 hours
Data Transfer	USB Type-C or email
I/O ports	1 x USB-C port 1 x 3.5 mm earphone jack

ABOUT COLTRACO ULTRASONICS

Coltraco is ISO 9001:2015 and ISO 14001 approved

Headquartered in **London**

Operating across a diverse array of **25 Market Sectors**

- Shipping
- Safety Engineering
- Process Control
- Mining
- Offshore Energy
- Renewables
- Healthcare
- Built Environment
- Naval
- Space

"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.

