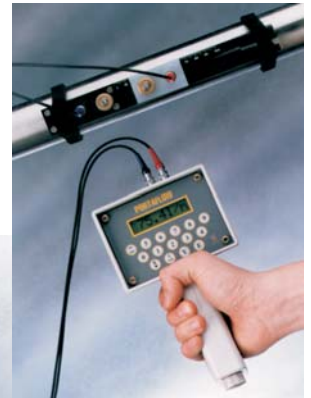


ULTRASONIC FLOWMETERS

These are non intrusive flowmeters to clamp on the outside of a pipe to measure the flow of liquids.

- Low cost: minimal installation cost ✓
- Wide range of pipe sizes and applications ✓
- No interruption of the process either for installation or maintenance ✓
- No intrusive mechanical hardware causing a pressure drop or requiring removal for maintenance ✓
- Simple set-up procedure. ✓



↑ Portaflo



↑ Ultraflo

Application

These 'transit time' ultrasonic flowmeters are suitable for testing and checking flows. They clamp on the outside of your pipes and measure the liquid flow in full pipes.

They have the unique advantage that no mechanical parts enter through the pipe wall and into the process fluid.

The Ultraflo and Portaflo can be used with a wide range of pipe materials and sizes that contain any liquid that can transmit ultrasound, including liquids that contain a small percentage of entrained solids.

Ultrasonic flowmeters are now accepted as being a viable method of measuring liquid flows, as their performance and reliability have improved.

Setup

Setup of the instrument is carried out using a keypad and LCD display. Data is entered relating to pipe size, material, liquid and application temperature. The user selects the measurement units, the 4-20 mA output levels and the other optional features.

Calibration

All testing is carried out against a NAMAS accredited meter traceable to National Standards.

Installation

The Ultraflo is for wall mounting installations and the hand held Portaflo is for mobile applications.

The transducers are provided with all the necessary mounting hardware and can be installed within a matter of minutes.

Display

The flow rate, velocity and total can be displayed. Features include flow averaging, negative flow indication, low flow alarm, variable damping, totaliser reset, signal loss compensation and totalised flow data storage.

Construction

The Ultraflo has a wall mounting ABS case and is protected to IP67. Cable entry is by IP68 glands. The Portaflo is housed in a rugged hand held plastic case. All instruments are shielded against electromagnetic radiation.

Principle of Operation

When ultrasound is transmitted between two sensors in a pipe in the direction of flow, then the signal is accelerated by the flowing liquid. Ultrasound transmitted in the opposite direction will be decelerated. The time difference between the signals is directly proportional to the flow velocity in the pipe.

Ultrasonic Flowmeters

Ultraflo 2000

Portaflo 204 & 208

Enclosure

Dimensions: 264 x 230 x 101 mm
 Protection class: IP67
 Material: ABS
 Connections: IP68 glands

200 x 115 x 85 mm
 IP55
 Polyamide

Electronics

Power supply: 110 or 240 V AC
 24 V DC
 Operating temp: 5 °C to + 50 °C
 Data input: Alpha numeric keypad
 Display: 2 x 16 LCD

110 or 240 V AC
 Battery powered 2 x AA
 0 °C to + 45 °C
 15 key keypad
 1 x 8 LCD

Outputs

Via display
 Flow rate & total
 Flow velocity
 Error messages
 Analogue output: 4 - 20 mA into 750
 Set point or pulse: Scaleable via keypad
 SPTD 240v max. 5 A

Flow rate
 Flow total
 Pulse output

Transducer

Clamp on by: Chain straps
 Operating temp: -20 °C to +100 °C
 Option to +200 °C
 Connections: Via coaxial connectors
 Cable length: 3 metres (std)
 Optional 200 m max.

Velcro straps
 -20 °C to + 100 °C

2 metres

Accuracy

Accuracy: +/- 4% of reading or +/- 0.05 m/sec whichever is greater.
 Repeatability: 0.3% with unchanged transducer position
 Resolution: LCD to 1 decimal place.
 Current output - 0.025mA
 Response time: < 2 seconds

Ultraflo 2000 Flow Range

Transducer	Line NB mm	Flow range m/s
Type A	13	0.4 - 8
	89	0.06 - 3
Type B	90	0.12 - 6
	1000	0.04 - 1.3
Type C	300	0.14 - 7
	2000	0.04 - 2
Type D	1000	0.08 - 4
	5000	0.04 - 2

Portaflo 204 & 208 Flow Range

Transducer	Line NB mm	Flow Range m/s
Portaflo 204	13	0.28 - 8
	100	0.08 - 4
Portaflo 208	50	0.24 - 8
	215	0.04 - 1.8

Contact our flow measurement specialists for **FREE** advice on your application

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The expert advice and the calls are FREE
 So call now!

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APOLLO



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