

BFU-100H

Portable Ultrasonic Flow Meter



BFU-100H

The BFU-100H is a Portable ultrasonic Flow Meter using the latest transducer technology and signal processing techniques for improved measurement and reliably high accuracy.

The BFU-100H can display instantaneous fluid flow rates or velocity, together with 4 different totalised values and is capable of transmitting a signal to an external logger or BMS using Pulse and 4-20mA Signals. The unit also has pre-configurable alarm characteristics which can actuate an output and sound a buzzer eg. Low flow, reverse flow etc.

The BFU-100H has internal NVRAM memory storage allowing for logging and retrieval of daily, monthly, yearly totals as well as site specific "set-up" data storage. Meaning that previous site characteristics can be recalled instantly ensuring rapid start-up. Ultrasonic flow meters are now widely used in the industrial and building sectors for monitoring water systems and energy efficiency monitoring. Their simplicity and reliability has seen their widespread adoption throughout the world as an accurate and reliable method of quantifying pipe flow rates and volume consumption.

These flow meters can be used on virtually any pipe size or material, are non-invasive and therefore not prone to the levels of deterioration that are seen by intrusive flow meters. They do not impose a pressure drop in the system and do not require specialist skills to fit and operate.



Accuracy	<1% of reading above 0.6ft/sec / 0.2 m/sec
Repeatability	0.2% fixed installation
Pipe Size	25 - 6000mm (dependant on transducers chosen)
Response Time	0-999 User configurable
Transducers	Rail Mount type 0°C to +160°C (Magnetic type: 0°C to +70°C)
Instrument	-10°C to 70°C External Environment
Datal-ogging	The totaliser data from the last 64 days / 64 months / 5 years;
Output	1x RS232 / 1x Pulse / Alarm / Frequency Output [OCT]
Power	Rechargeable Ni-MH Battery (12 hours continuous operation)
Dimensions	100 x 65 x 20 mm
Weight (Control Unit)	1.2lbs (514g)
Security	PIN code lockout facility optional



Guide rails



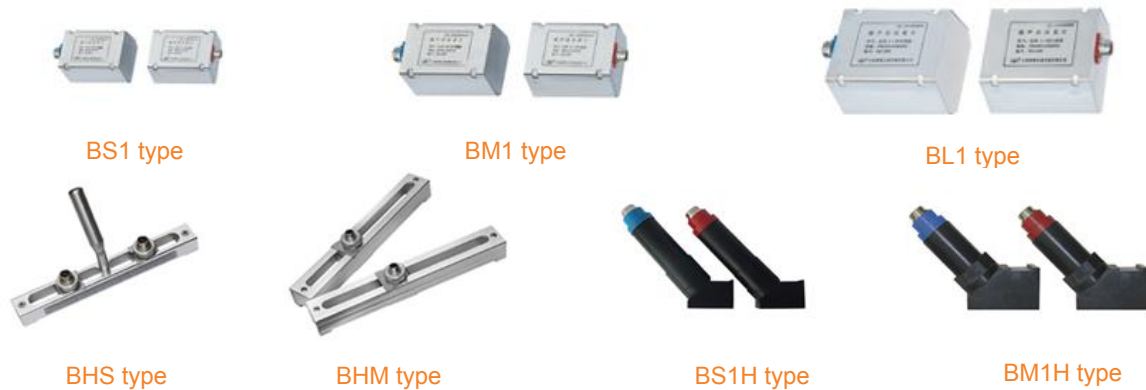
Sensor cables

FEATURES

Positive / Negative / Net flow totalisers, Flow rate, Signal Strength, Signal wave form and date	Proprietary low-voltage transmission and self-adapting sensor technology. Anti-interference design.
Dual CPU. 100 Pico-second measurement rate resolution.	Operates with all of our transducers, including clamp-on, insertion and flow-cell (spool-piece) wetted types.
Rugged Hand Held ABS enclosure (standard version IP65).	Able to measure electrically conductive and non-conductive liquids.
RS-232 interface. Complete communication protocol for instrument networking.	Can be used as a flow RTU.
Velocity +/- 32 m/s	Scalable 4-20mA output (0-1kΩ Impedance)
1 channel programmable digital output (isolated OCT)	Frequency output. (0 - 9,999Hz), alarm driver, or totaliser, pulse output, ON/OFF control, etc.
RS232C Comms Output	4x 16 character backlit ,LCD display.
18 key tactile membrane keypad buttons.	Internal Alarm Buzzer ,User Programmable alarm outputs.

ULTRASONIC TRANSDUCERS

A pair of clamp-on transducers to measure flow from outside of the pipe are included complete with pipe guide rails and chains, meaning there is no pressure drop, there are no moving parts, no leaks and no contamination. The installation is very simple and no special skills or tools are required.



Parameters	BHS-type	BHM-type	BS1-type	BM1-type	BL1-type	BS1H-type	BM1H-type
Pipe size(mm):	DN25-100	DN50-700	DN25-100	DN50-700	DN300-6000	DN25-100	DN50-700
Pipe size(inch):	(1-4")	(2-28")	(1-4")	(2-28")	(12-240")	(1-4")	(2-28")
Material:	Aluminum alloy		ABS			Special high-temperature material	
Frequency	1MHZ						
Installation method	V(N,W)	V , Z	V(N , W)	V , Z	Z	V(N , W)	V , Z
calibration	Calibrate with the main unit						
magnetism	Magnetic (BHS with Guide rail& chain)				Band Clamp		
temperature	32°F -158°F (0°C-70°C)					32°F -320°F (0°C-160°C)	
Protection class	IP65						
Dimension(mm)	200×25×25	280×40×40	45×30×30	60×45×45	80×70×55	90×85×24	90×82×29
weight (g)	250	1080	75	250	650	94	150
Liquid types	Water, sea water. waste water, chemical liquids, oil, crude oil, alcohol, beer, etc.						
Suspension concentration	≤20000ppm, may contain a very small amount of air bubbles.						
Pipe material	All metals, most plastics, fiber glass, lined, etc,						
Dedicated shielded transducer cable	Standard length 5 metre x two pcs, can be extended to 10 metre or 15 metre						

HAND HELD ULTRASONIC FLOW METER

A B C D E F G H I

BFU-100H □ — □ — □ — □ — □ — □ — □ — □ — □ — □

Letter	Parameter	Option
A	Main board version	Version 8
B	Standard transducer	BHM-type Clamp-on transducers for medium pipe
C	Optional transducer	BHS-type Clamp-on transducers for medium pipe
D		BS1-type Clamp-on transducers for small pipe
E		BM1-type Clamp-on transducers for small pipe
F		BL1-type Clamp-on transducers for small pipe
G		BS1H-type Clamp-on high temperature transducers for small pipe
H		BS1H-type Clamp-on high temperature transducers for small pipe
I		Cable length

For Example: BFU-100H 8-BS1+BM1+BL1-5

Note: BS1+BM1+BL1 transducer, with max cable length 5 metres

CASE CONTENTS

- BFU-100H Battery Powered instrument with backlit Alpha/numeric display
- Power supply - 110/240VAC
- Transducer cables with push connect fittings (x2) 5 metres long
- Transducer sets as selected BHS (DN25 – 100mm) and BHM (DN500-700)
- Set of guide rails and chains for use with chosen transducers
- 4-20mA / Pulse/Alarm output cable
- Ultrasonic Coupling gel
- Manual

