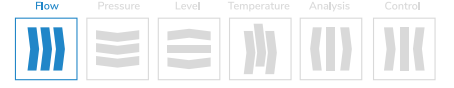


BSUF-TTHH

Hand Type Ultrasonic Flowmeter



OVERVIEW

Operation

The BSUF-TTHH is a fully featured portable transit-time ultrasonic flowmeter. Whether you need to quickly verify the readings of another flowmeter or record flow system data over an extended period, the BSUF-TTHH is an ideal solution. Its innovative design incorporates matched transducers and signal processing circuitry, enabling accurate measurement of most liquids over a wide velocity range.

The clamp-on transducers cause no wear or pressure loss, and installation does not require process shutdown. The flowmeter is easy to transport, can be mounted on different pipes, and can be conveniently moved from one site to another. Its portability makes it an excellent choice for conducting flow measurements throughout a facility's piping system and verifying the performance of sensors, pumps, and valves.

Features

- Easy installation
- No pressure loss and no moving parts requiring maintenance or replacement.
- BSUF-TTHH to be used as a portable ultrasonic energy meter.
- Large data storage capacity and support for spreadsheet-based data analysis software.

Features

- Petroleum industry
- Water treatment
- Pure water applications
- Chemical industry



TECHNICAL DATA

Flow Velocity Range

± 0.01 to ± 20 m/s

Accuracy

$\pm 1\%$ of reading

Pipe Diameter

Clamp-on: 1–60 in (25–1,500 mm)

Fluid Type

Single-phase liquids

Pipe Material

Carbon steel, stainless steel, PVC, and other solid-wall pipe materials

OPERATING DATA

Outputs

Modbus via RS485; 4–20 mA analog output, maximum load: 750 Ω

USB Ports

Optional

SD Card

16 gb capacity

Power Supply

Rechargeable lithium battery, 3,000 mAh

Sensor Cable

Standard cable length: 5 m (16 ft)

Battery Operating Time

16 hours of continuous operation on the main battery

Temperature Range

Transducers: -40 to $+80$ $^{\circ}\text{C}$; optional: -40 to $+130$ $^{\circ}\text{C}$.
Transmitter: -40 to $+70$ $^{\circ}\text{C}$

Environmental Protection

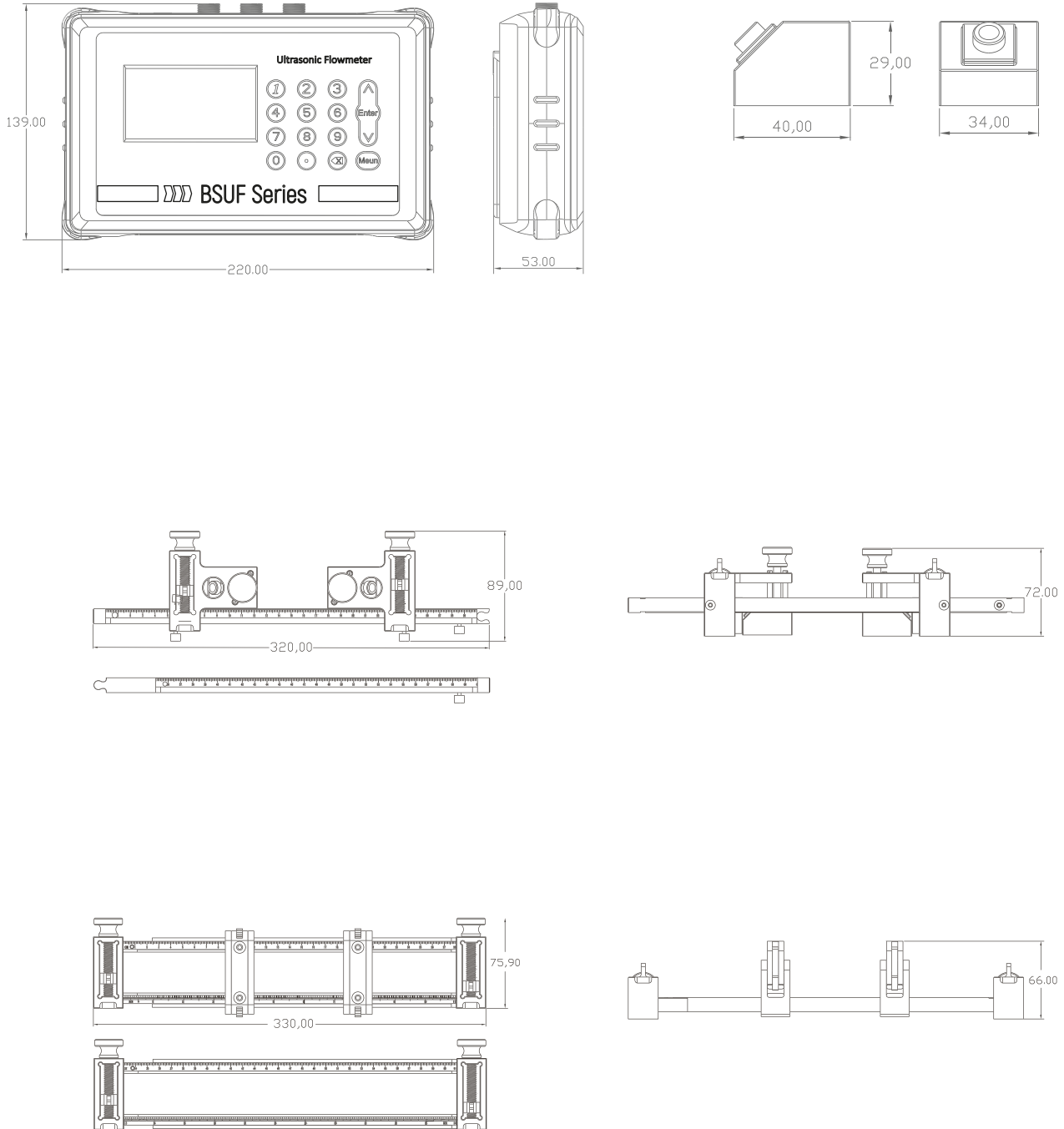
Transmitter: NEMA 13, IP54. Transducers: IP68

Relative Humidity

Up to 99% RH, non-condensing



TECHNICAL DRAWINGS AND DIMENSIONS



ORDERING

Model	
BSUF-TTHH	Hand Type Ultrasonic Flowmeter

Transmitter Type	
F	Ultrasonic Flowmeter
H	Ultrasonic Energy / BTU Measurement Function (with RTD support)

Transducer Type	
BM1	Clamp-on, IP68. Operating temperature: -40 to +176 °F (-40 to +80 °C)
BHTM1	Clamp-on, IP68, extended temperature range. Operating temperature: -40 to +266 °F (-40 to +130 °C)
BIM1	Insertion type, IP68. Operating temperature: -40 to +266 °F (-40 to +130 °C)

Mounting Rail Type	
ST	Single-guide mounting bracket
DT	Dual-guide mounting bracket

Transducer Cable Length	
P5	For BM1 and BHTM1 series: standard 5 m (16 ft) cable, supplied with mounting rail
PXX	Cable length as specified (extendable up to a maximum of 30 m)

Temperature Sensor	
PT1000	Pair of clamp-on PT1000 temperature sensors with 9 m cables

