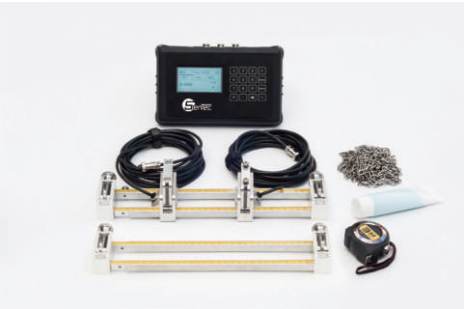
Introduction



FHS320 is a full function handle transfer time ultrasonic flow meter. No matter you want to quickly verify the flow reading of another meter or to data log flow system values over an extended time period, the SENTEC’ s FHS320 is the suitable tool. The FHS320 portable meter has the clamp on transducers no tapping or cutting is required, just clamp outside of the pipe. The meter can be easily moved and installed in different pipe and convenient to carry site to site.Its portability makes it an excellent choice formeasuring flows throughout the plumbing infra - structure to verify sensor, pump andvalve performance.

Feature

1. Easy to install, reduced installation time and cost.
2. No pressure head loss, No moving parts to maintain or replace.
3. BTU function is an option. FHS320 could be used as a portable ultrasonic energy meter.
4. Powerful data storage and also support the data sheet analysis software.

Application

FHS320 ultrasonic flowmeter widely application in oil industry, water treatment, pure water, chemical and etc.

Specification

Performance specifications

Flow range	±0.03 ft/s ~ ±40 ft/s (±0.01 m/s~ ±12 m/s)
Accuracy	±1% of measured value
Pipe size	Clamp-on:1"~48"(25mm~1200mm)
Fluid	Single medium liquid
Pipe material	Carbon steel,stainless steel,PVC and other compact material pipe

Function specifications

Outputs	Analog output: 4~20mA, Max 750 Ω. Modbus: RS485
SD card	16G
Interval	1 ~ 99999seconds
Key broad	Digital keys
Display	240*128 back lit LCD
Power supply	Rechargeable Lithium Battery Power，3000mAh (Continuous operation of main battery 16 hours).
Temperature	Transmitter: -40℃~60℃ Transducer: -40℃~80℃ (-40℃~80℃ is standard; -40℃~130℃ is an option)
Humidity	Up to 99% RH,non-condensing

Physical specifications

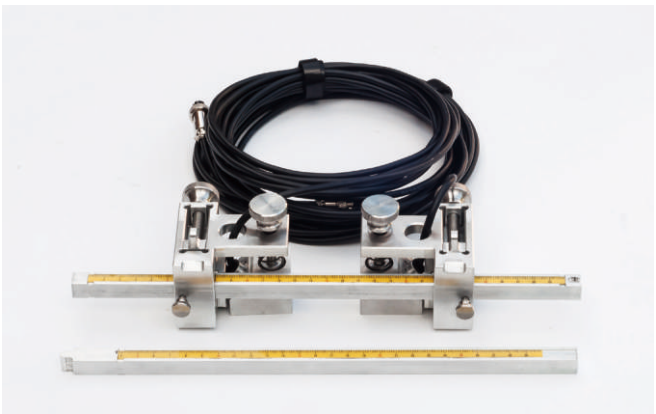
Transmitter	NEMA13,IP54.
Transducer	Encapsulated design,IP68
Transducer cable	Standard cable length: 5m (16ft).

FHS320 Ultrasonic Flowmeter

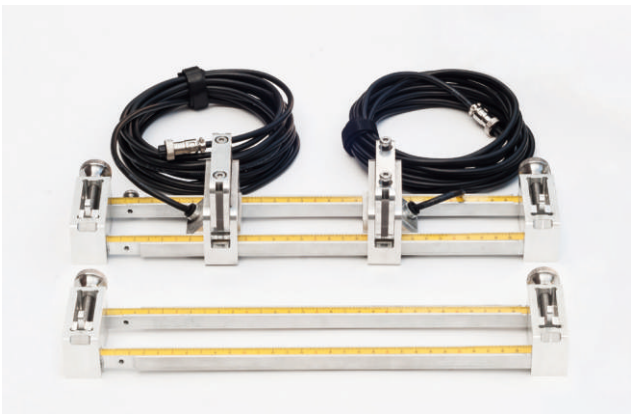
Product photo

Accessories

1. Carrying Case*1pc.
2. Transmitter (Electronic)*1pc.
3. Transducer (Sensor) *1 pair.
4. Mounting track*1 set, ST or DT
5. Pipe straps *2 pairs.
6. Coupling compound (Grease)*1 pc, Battery charge*1pc, Output cable*1pc and Tapeline*1



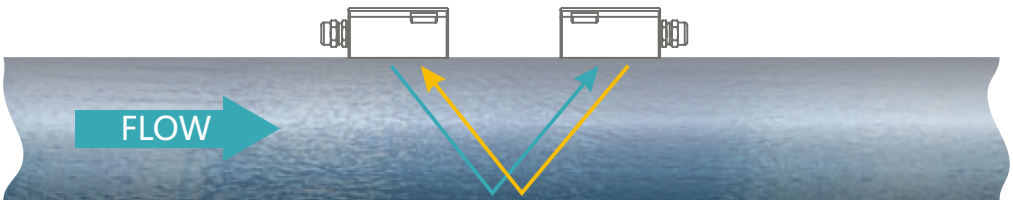
Single guide mounting type bracket（Code ST）



Dual guides mounting type bracket（Code DT）

Measuring principle

Transfer time technical means the ultraso nic signal from the transducer is tra nsmitted and rec eived through the m oving liquid, there w ill be a difference betw een the upst ream and d ownstream transit time , which can be u sed to calculate flow and vel ocity.



An ultrasonic meter equipped with heat flow capabilities measuresthe rate and quantity of heat delivered or removed from devicessuch as heat exchangers. By measuring the volumetric flow rate of
the heat exchanger liquid, the temperature at the inlet pipe andthe tem - perature at the outlet pipe, the energy usage canbe calculated.

Ordering code

Model	Description
FHS320	Portable Ultrasonic Flow Meter Installation method: Handheld Flow Range:±0.03 ft/s ~ ±40 ft/s (±0.01 m/s~ ±12 m/s) Accuracy: ±1% of measured value Repeatability: 0.2% Output: 4-20mA, RS485 Internal lithium power supply: 3000mAh Pipe size range: 1"~48"(25mm~1200mm) Transducer: IP68, D series transducer, 5m cable with mounting kits.

Code	Type of Transmitter
1	Ultrasonic Flow Meter
2	Ultrasonic Energy/Btu Meter function(RTD)
Code	**Type of transducers**
D1	Clamp-on, IP68. Operating temperature: -40℉ ~ +176℉(-40℃ ~ +80℃)
D1U	Clamp-on, IP68. Operating temperature: -40℉ ~ +266℉(-40℃ ~ +130℃)
Code	**Type of mounting track**
ST	Single guide mounting type bracket
DT	Dual guides mounting type bracket
Code	**Transducers cable length**
P5	D series type of cable Standard 5m (16ft) with mounting track.
PXX	XX is the length you need for cables, Maximum lengthen to 30m.
Code	**Temperature sensor**
PT1000	A pair of clamp on PT1000 sensor 9m

Flow meter model (example):

FHS320-1-D1-ST-P5

Portable Ultrasonic Flow Meter FHS320, D1 type transducer 5m cables with single guide mounting track.

Energy/ Btu meter model(example):

FHS320-2-D1-ST-P5-PT1000

Portable Ultrasonic Energy/Btu Meter FHS320, D1 type transducer 5m cables with single guide typemounting track. A pair of PT1000 clamp on temperature sensor, 9m cables.

***You could choose the mounting track as the application need and your use habit.**