



Feature

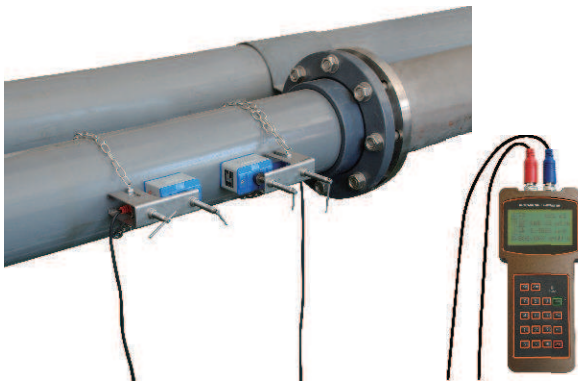
- **High Accuracy**
Accuracy better than 1%.
- **Wide Measurement Range**
Measurement range from DN25~DN1000mm
- **Rechargeable Power Supply**
Built-in high-capacity NiMH rechargeable batteries can work 20 hours(Fully charged).
- **Non invasion measurement**
Can achieve measurement with clamp on sensors
- **Data Storage**
32K BIT built-in data storage,can store two thousand rows of data
- **LCD display**
LCD dispaly can display the instant flow,totoal flow,flow velocity and working condition



Product Introduction

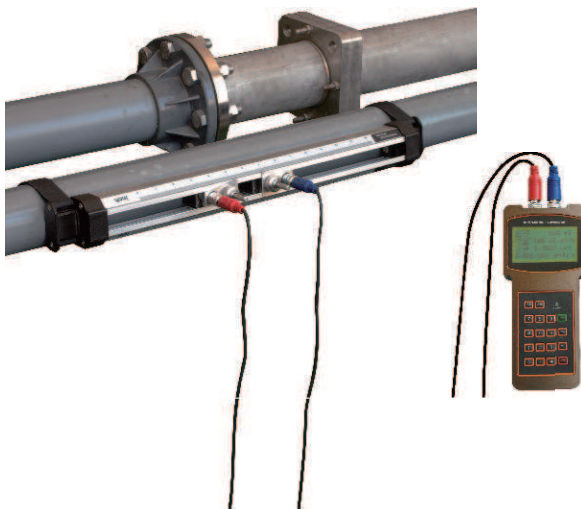
The handheld ultrasonic flow meter is designed to work with clamp-on transducers to enable the flow of a liquid within a closed pipe to be measured accurately without needing to insert any mechanical parts through the pipe wall or protrude into the flow system.

Using ultrasonic transit time techniques, the PHILEMON-H is controlled by a micro-processor system which contains a wide range of data that enables it to be used with pipes with an outside diameter ranging from 15mm up to 6000mm (depending on model) and constructed of almost any material. The instrument will also operate over a wide range of fluid temperatures.



Clamp on transducer

- Easy to install and no need to cut off the flow, no pressure loss
- Different transducer from DN25~DN1000
- Different transducer for temperature -30~160°C



- Reduces installation time, improve installation accuracy
Easy installation, no need cut the flow, no pressure loss
- Easy to install and no need to cut off the flow, no pressure loss
- Different transducer from DN25~DN700
- Different transducer for temperature -30~160°C

Application

Water supply



Supply heating



Building Energy Conservation



Metallurgy



Petroleum & Chemical

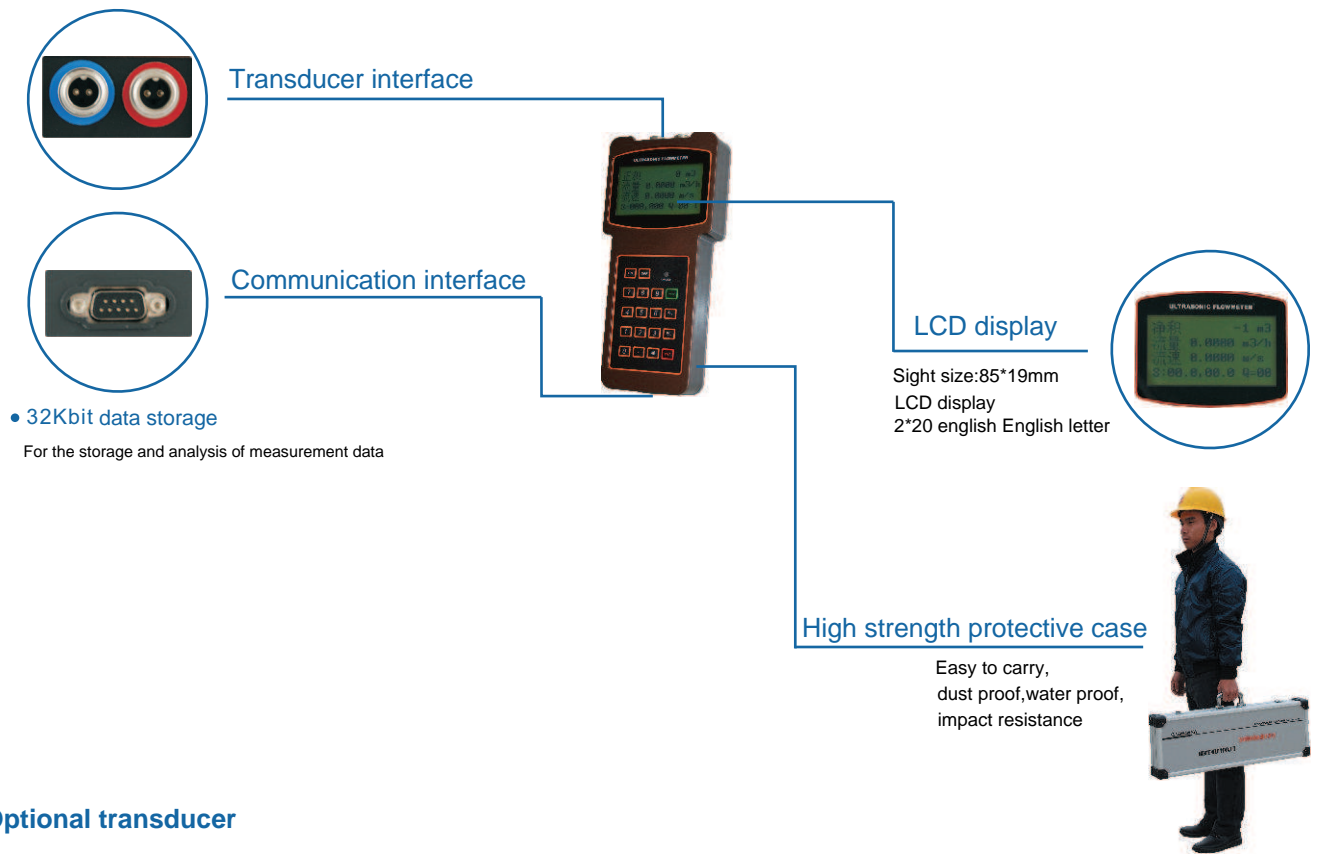


Power plant





The main components feature



• Optional transducer

| Type | Picture | Size | Model | Measuring range | Temperature | Dimension |
|--------------------------------|---------|--------|---------|-----------------|-------------|--------------|
| Standard Clamp on Type | | Small | TS-2 | DN25~DN80 | -30~90℃ | 45×25×32mm |
| | | Medium | TM-1 | DN80~DN450 | -30~90℃ | 64×39×44mm |
| | | Large | TL-1 | DN450~DN1000 | -30~90℃ | 97×54×53mm |
| High Temperature Clamp on Type | | Small | TS-2-HT | DN25~DN80 | -30~160℃ | 45×25×32mm |
| | | Medium | TM-1-HT | DN80~DN450 | -30~160℃ | 64×39×44mm |
| | | Large | TL-1-HT | DN450~DN1000 | -30~160℃ | 97×54×53mm |
| Standard Bracket Type | | Small | HS | DN32~DN80 | -30~90℃ | 318×59×85mm |
| | | Medium | HM | DN80~DN300 | -30~90℃ | 568×59×85mm |
| | | Large | EB-1 | DN300~DN700 | -30~90℃ | 188×59×49mm |
| High Temperature Bracket Type | | Small | HS-HT | DN32~DN80 | -30~160℃ | 318×59×110mm |
| | | Medium | HM-HT | DN80~DN300 | -30~160℃ | 568×59×110mm |
| | | Large | EB-1-HT | DN300~DN700 | -30~160℃ | 188×59×49mm |



Basic technical parameters

| Type | | Performance parameter |
|-----------------------|---|---|
| Transmitter | Principle | Ultrasonic transit-time principle, Four-byte IEEE754 floating-point arithmetic |
| | Accuracy | Flow: Better than $\pm 1\%$ |
| | Display | LCD display with Chinese, English, Italian language |
| | Output | One OCT pulse output (pulse width 6-1000ms, Default 200ms) |
| | Data interface | Isolation of 232 communication interface, can upgrade flowmeter through PC |
| Pipeline Conditions | Pipe Material | Steel, Stainless steel, Cast iron, copper, PVC, aluminium, FRP etc. (liner allowed) |
| | Diameter | 15~6000mm |
| | Installation | Upstream 10D, downstream 5D, 30D away from the pump outlet (D for diameter) |
| Medium | Fluid | Water, sea water, acid liquid, beer, alcohol, oil and any other liquid that can spread sonic |
| | Temperature | Temperature: $-30\sim 160\text{ }^{\circ}\text{C}$ |
| | Turbidity | 10000ppm and with little bubbles |
| | Velocity | $0\sim \pm 10\text{m/s}$ |
| Operating Environment | Temperature | Transmitter: $-20\sim 60\text{ }^{\circ}\text{C}$; Transducer: $-30\sim 160\text{ }^{\circ}\text{C}$ |
| | Humidity | Transmitter: 85%RH; transmitter protection grade: IP67 |
| Power | Three internal 1.2V, 2000mAh rechargeable Ni-MH battery. Can work 12 hours fully charged. Can achieve continuous measurement with AC90~260V power adapter | |
| Consumption | 1.5W | |
| Case Material | Flame retardant ABS | |
| Weight | Transmitter: 390g | |

Model Selection

– Transmitter(multiple) – Cable length
 5 5m*2(standard)
 10 10m*2

Example:

Explanation: Handheld ultrasonic flowmeter with HS, HM, TL-1 transmitter, 5*2 cable

