# **Ultrasonic flow meter**



## **INTRODUCTION:**

Ultrasonic flowmeter measures the flow of liquid in the tube. Ultrasonic flow meters are accurate in measurement, reliable in operation, and more suitable for industrial sites. The converter forms are:handheld, portable, wall-mounted, modular,the sensor forms are:plug-in,inline,and clamping.





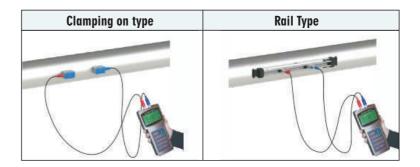






# 1. Hanheld ultrasonic flow meter

The hand-held ultrasonic flowmeter realizes the non-contact measurement of the liquid flow. The sensor is installed on the outer wall of the pipeline to complete the flow measurement. It has the characteristics of small size, convenient carrying and accurate measurement.



#### TRANSDUCERS USED FOR DIFFERENT PIPE SIZE:

Types	Picture	Size	Model	Measuring range	Temperature
		Small	TS-2	DN15~DN100	-30 <b>~</b> 90°C
Standard	5 8	Medium	TM-1	DN50 ∼DN700	-30 <b>∼</b> 90°C
	100	Large	TL-1	DN300~DN6000	-30 <b>~</b> 90°C
		Small	TS-2-HT	DN15~DN100	-30 <b>∼</b> 160°C
High Temp		Medium	TM-1-HT	DN50 ∼DN700	-30 <b>∼</b> 160°C
	2 2	Large	TL-1-HT	DN300~DN6000	-30 <b>∼</b> 160°C
Rail type	- William	Small	HS	DN15~DN100	-30 <b>∼</b> 90°C
	N. C.	Medium	НМ	DN50~DN300	-30 ∼90°C
	5	Large	EB-1	DN300~DN700	-30 <b>∼</b> 90°C
D.:I.A	S. Indiana	Small	HS-HT	DN15~DN100	-30 <b>~</b> 160°C
Rail type with high temp		Medium	HM-HT	DN50~DN300	-30 <b>~</b> 160°C
	5	Large	EB-1-HT	DN300~DN700	-30~160°C

#### **SPARE PARTS:**



#### **STANDARD DELIVERY:**

1 x Handheld Ultrasonic Flowmeter

2 x3 Types Transducer (with rail if ordered)

2 x 5 m connection cable

1 x 2GB SD card (optional)

1 x Integrated datalogger

1 x RS232 interface

1 x Pulse output

2 x Fastening chains

1 x Battery 1 + Charger

1 x House of protection

1 x tape measure

1 x Heavy duty aluminum carrying case

1 x Instructions manual

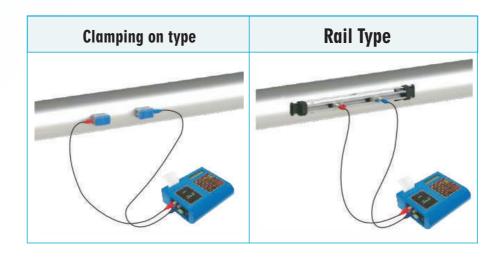
#### **SPECIFICATION:**

	Handheld ultrasonic flow meter	Handheld ultrasonic energy meter	
Accuracy	±1%	±2%	
Tube diameter	DN15-DN6000		
Flow rate	0-	±10m/s	
Turbidity	10000ppm, and the	e bubble content is small	
Medium Tep	-30	0-160°C	
Applicable pipes	Steel, stainless steel, copper, PVC, aluminu	um, fiberglass and other pipes. Lining is allowed.	
		1 way 4~20mA output	
Signal Output	1 way OCT Output (pulse width 6-1000ms, default 200ms)	1 way OCT output	
Signal input		1 circuit relay output	
Olgital Ilipat		3 way 4~20mA input	
		2 way temperature messure	
Data interface	RS232	RS485	
Communication protocol MODBUS,M-BUS,HART,ETC		BUS,HART,ETC	
Display	LCD display		
Keyboard	16+2 Touch keyboard		
Data record	Built in 32MB memory	Thermal printerExternal SD card	
Power supply	Rechargeable NI-MH batteries 2000mAH		
Work time	More than 12h More than 20h		

# 2. Portable ultrasonic flowmeter

## **INTRODUCTION:**

Portable ultrasonic flowmeter realizes the non-contact measurement of the liquid flow. The sensor is installed on the outer wall of the pipeline to complete the flow measurement. Convenient and accurate, built-in printer and SD card memory, can print the set measurement value instantly or regularly.



# TRANSDUCERS USED FOR DIFFERENT PIPE SIZE:

Types	Picture	Size	Model	Measuring range	Temperature
		Small	TS-2	DN15~DN100	-30 <b>∼</b> 90°C
Standard		Medium	TM-1	DN50 ∼DN700	-30 <b>~</b> 90°C
	66	Large	TL-1	DN300~DN6000	-30 <b>~</b> 90°C
		Small	TS-2-HT	DN15~DN100	-30 <b>∼</b> 160°C
High Temp		Medium	TM-1-HT	DN50 ~DN700	-30 <b>∼</b> 160°C
	2 3	Large	TL-1-HT	DN300~DN6000	-30 <b>∼</b> 160°C
Rail type	Sales !	Small	HS	DN15~DN100	-30 <b>~</b> 90°C
	A The state of the	Medium	НМ	DN50~DN300	-30 ∼90°C
	5	Large	EB-1	DN300~DN700	-30 <b>∼</b> 90°C
Rail type with high temp	-	Small	HS-HT	DN15~DN100	-30∼160°C
		Medium	HM-HT	DN50~DN300	-30 <b>~</b> 160°C
		Large	EB-1-HT	DN300~DN700	-30∼160°C

#### **SPARE PARTS:**



# **SPECIFICATION:**

Category	Portable ultrasonic flowmeter	
Accuracy	flow ±1%, heat ±2%	
Tube diameter	DN15-DN6000	
Flow rate	0-±10m/s	
Measuring medium temperature	-30-160°C	
Turbidity	10000ppm, and the bubble content is small	
Applicable pipes	Steel, stainless steel, copper, PVC, aluminum, fiberglass and other pipes. Lining is allowed.	
	1 way 4~20mA output	
Signal Output	1 way OCT output	
Signal input	1 circuit relay output	
	3 way 4~20mA input	
	2 way temperature messure	
Data interface	RS485	
Communication protocol	MODBUS,M-BUS,HART,ETC	
Display	LCD display	
Keyboard	16+2 Touch keyboard	
Data record	Thermal printer External SD card	
Power supply	Rechargeable NI-MH batteries 2000mAH	

#### **STANDARD DELIVERY:**

- 2 x 3Types Transducer (with rail if ordered)
- 1 x SD card
- ✓ 1 x Integrated datalogger
- 1 x Pulse output
- 2 x Fastening chains
- 1 x House of protection
- 1 x tape measure
- ✓ 1 x Heavy duty aluminum carrying case
- 1 x Instructions manual



# 3. Wall Mounted Ultrasonic Flowmeter

### **INTRODUCTION:**

Wall Mounted Clamp-on Ultrasonic Flowmeter can be installed on the wall, instrument box, distribution box, and the protection level of the host reaches IP67.Wall-mounted ultrasonic flowmeter compatible with nearly all material pipe with diamter 15mm~6000mm, such as Stainless steel pipe,PVC pipe, aluminum pipe, galvanized pipe, steel pipe, etc.



#### **PARAMETERS:**

Flow range	0-12m/s	
Applicable caliber	DN15~DN6000	
Display	2*20 backlit LCD(Chinese and English optional)	
Power supply mode	220VAC/8~36VDC	
Power consumption	Operating current is 50mA	
Accuracy	± 1%	
Operating	4*4 tactile keypad	
Protection level	Mainframe:IP65, transducer:IP:68	
Communication	RS485 Modbus RTU Interface	
Output 1x 4-20 mA ~ 1x impulsion ~ 1x relay		
Inputs	3x 4-20 mA, qccuracy 0.1 % (acquisition of temperature, pressure)	
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#### **INSTALLATION:**







### **TYPES OF FLOW TRANSDUCERS:**

Flow transducer	Model	Measuring range	Temperature
	TS-2(small)	DN25-DN100	
Clamp on	TM-1(medium)	DN50-DN700	-30°C~90°C
	TL-1(large)	DN300-DN6000	
	TS-2-HT(small)	DN25-DN100	
High temp Clamp on	TM-1-HT(medium)	DN50-DN700	-30°C~160°C
	TL-1-HT(large)	DN300-DN6000	
	TC-1(standard)	DN50-DN6000	-30°C~160°C
Insertion	TC-2(extended)		
	TP-1(parallel)	DN80-DN6000	
Inline	standard	DN15-DN1000	-30°C~160°C

# 4. Modular clamp-on ultrasonic flowmeter

## **INTRODUCTION:**

The flow meter is small in size, full of functions, and low in price. It is installed on a guide rail and is suitable for batch use and installation in an instrument box or power distribution cabinet.



Flow range	0-12m/s	
Applicable caliber	DN15~DN6000	
Display	2*20 backlit LCD(Chinese and English optional)	
Power supply mode	220VAC/8~36VDC	
Power consumption	Operating current is 50mA	
Accuracy	± 1%	
Protection level	Mainframe:IP65, transducer:IP68	
Communication	RS485 Modbus RTU Interface	
Output	1x 4-20 mA ~ 1x impulsion ~ 1x relay	
Inputs	3x 4-20 mA, qccuracy 0.1 % (acquisition of temperature, pressure)	

## **INSTALLATION:**







### **TYPES OF FLOW TRANSDUCERS:**

Flow transducer	Model	Measuring range	Temperature
	TS-2(small)	DN25-DN100	
Clamp on	TM-1(medium)	DN50-DN700	-30°C~90°C
	TL-1(large)	DN300-DN6000	
	TS-2-HT(small)	DN25-DN100	
High temp Clamp on	TM-1-HT(medium)	DN50-DN700	-30°C~160°C
	TL-1-HT(large)	DN300-DN6000	
	TC-1(standard)	DNICO DNICOGO	
Insertion	TC-2(extended)	DN50-DN6000 -30°C	-30°C~160°C
	TP-1(parallel)	DN80-DN6000	
Inline	standard	DN15-DN1000	-30°C~160°C

# **5. Fixed Mounting ultrasonic flow meter**

Fixed Mounting ultrasonic flow meter can be installed on the pipe line, the sensor can be installed clamp on, insertion and Inline.







## **PARAMETERS:**

Flow range	0-12m/s
Applicable caliber	DN15~DN6000
Display	2*20 backlit LCD(Chinese and English optional)
Power supply mode	220VAC/8~36VDC
Power consumption	Operating current is 50mA
Accuracy	± 1%
Protection level	Mainframe:IP65, transducer:IP68
Communication	RS485 Modbus RTU Interface
Output 1x 4-20 mA ~ 1x impulsion ~ 1x relay	
Inputs	3x 4-20 mA, qccuracy 0.1 % (acquisition of temperature, pressure)

#### **TYPES OF FLOW TRANSDUCERS:**

Flow transducer	Model	Measuring range	Temperature
	TS-2(small)	DN25-DN100	
Clamp on	TM-1(medium)	DN50-DN700	-30°C~90°C
	TL-1(large)	DN300-DN6000	
	TS-2-HT(small)	DN25-DN100	
High temp Clamp on	TM-1-HT(medium)	DN50-DN700	-30°C~160°C
	TL-1-HT(large)	DN300-DN6000	
	TC-1(standard)	DNEO DNEOOO	
Insertion	TC-2(extended)	DN50-DN6000	-30°C~160°C
	TP-1(parallel)	DN80-DN6000	
Inline	standard	DN15-DN1000	-30°C~160°C

# **Shengda Water Meter since 1995**

Established in 1995, Shengda Water Meter Co., Ltd is one of leading manufacturer of water meters and flow meters in China. The company also provides total solutions for smart flow metering, control, telemetry and smart water meter reading system.













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