

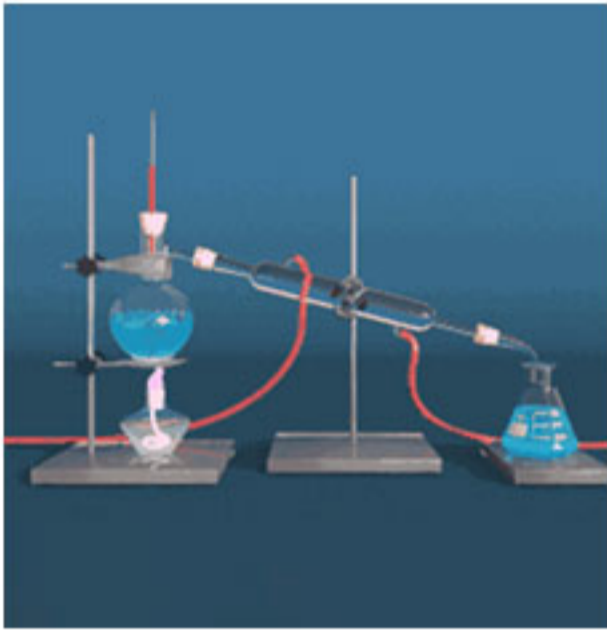
# PORTABLE ULTRASONIC FLOWMETER

For Liquid  
Reliable Flow Measurement



# APPLICATION

Uniform liquid in which ultrasonic waves can propagate



Ultrapure Water and Liquids



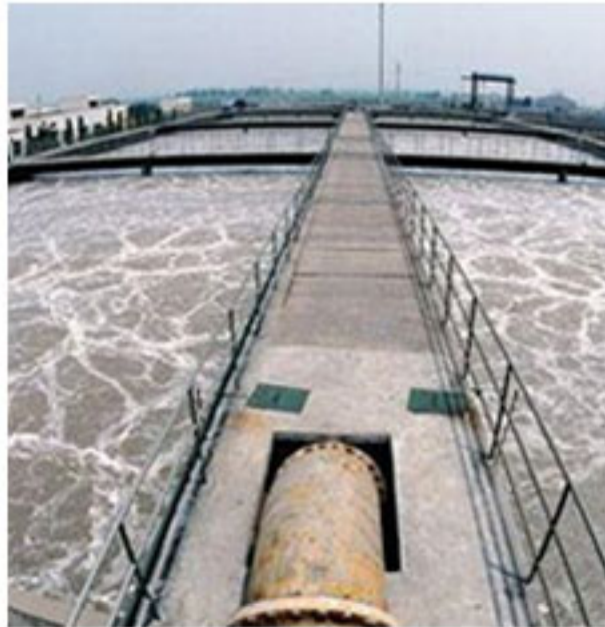
Water / Glycol Solutions



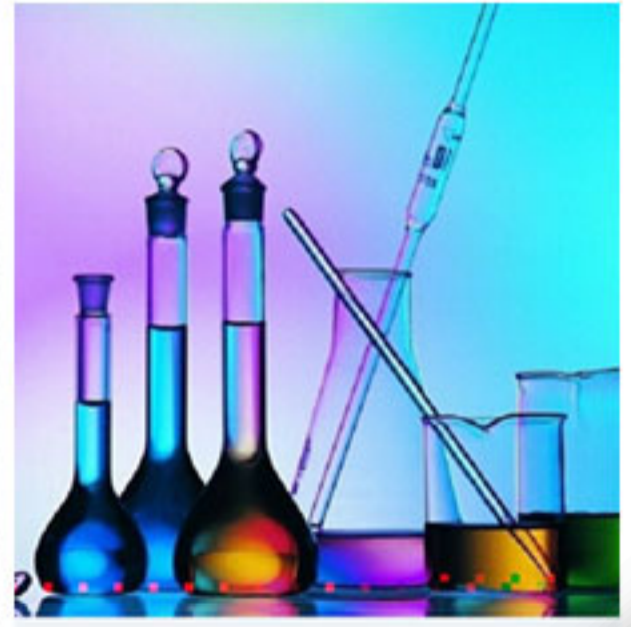
Cooling and Heating Water



Diesel and Fuel Oil



Wastewater



Chemicals

# PRODUCT DETAILS

01

## Built-in Mini Thermal Printer

*Realtime and Timing Printing*

24 Line Character  
Thermal Printer  
or SD card,  
Alternative



Easy to  
Change  
the Paper

02

## Backlit LCD and Front Panel Operation

English+Chinese OR English+Italian+Turkish



High Accuracy

±1.0% of Rate

User can select which value to show on each line

# 03

## Multiple Inputs and Outputs

RS485 Modbus RTU

Temperature sensor (Optional)

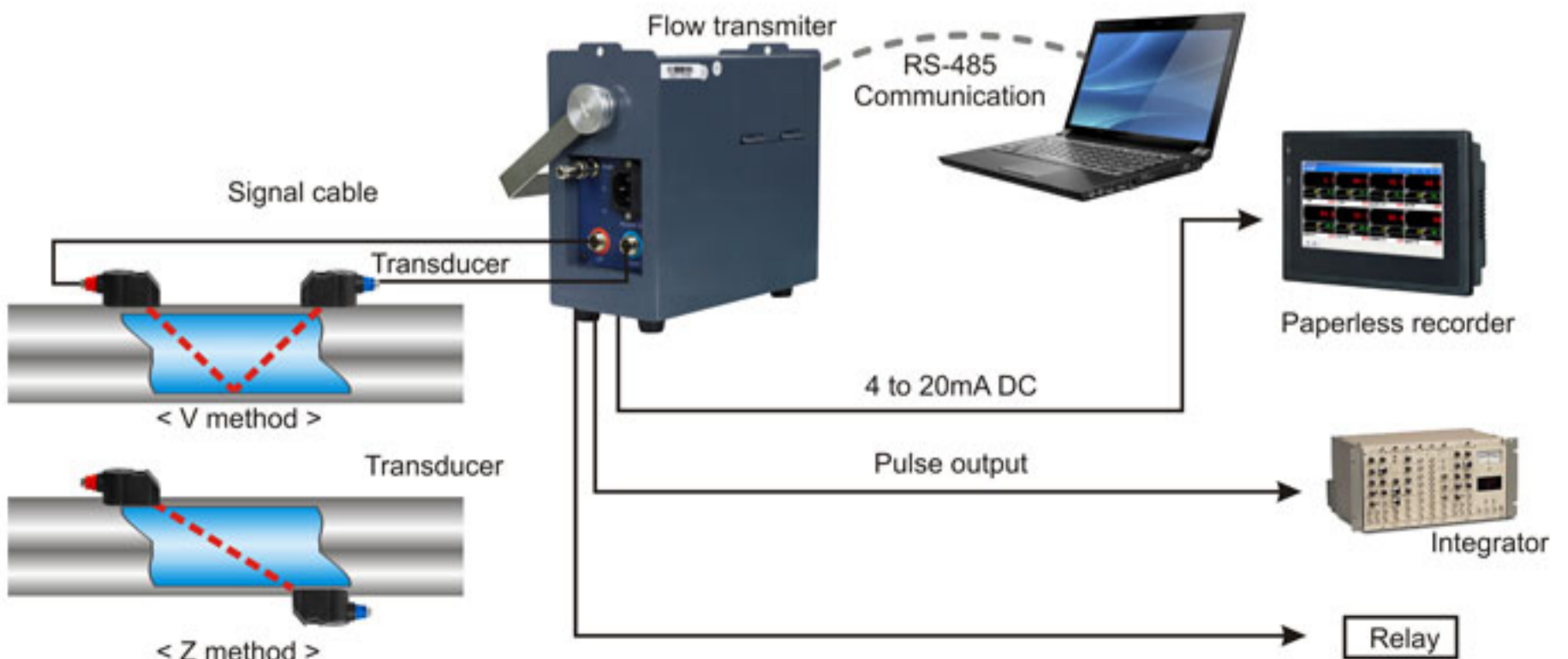
Relay (Optional)

Pulse (Optional)

4-20mA (Optional)



### Example of System Configuration

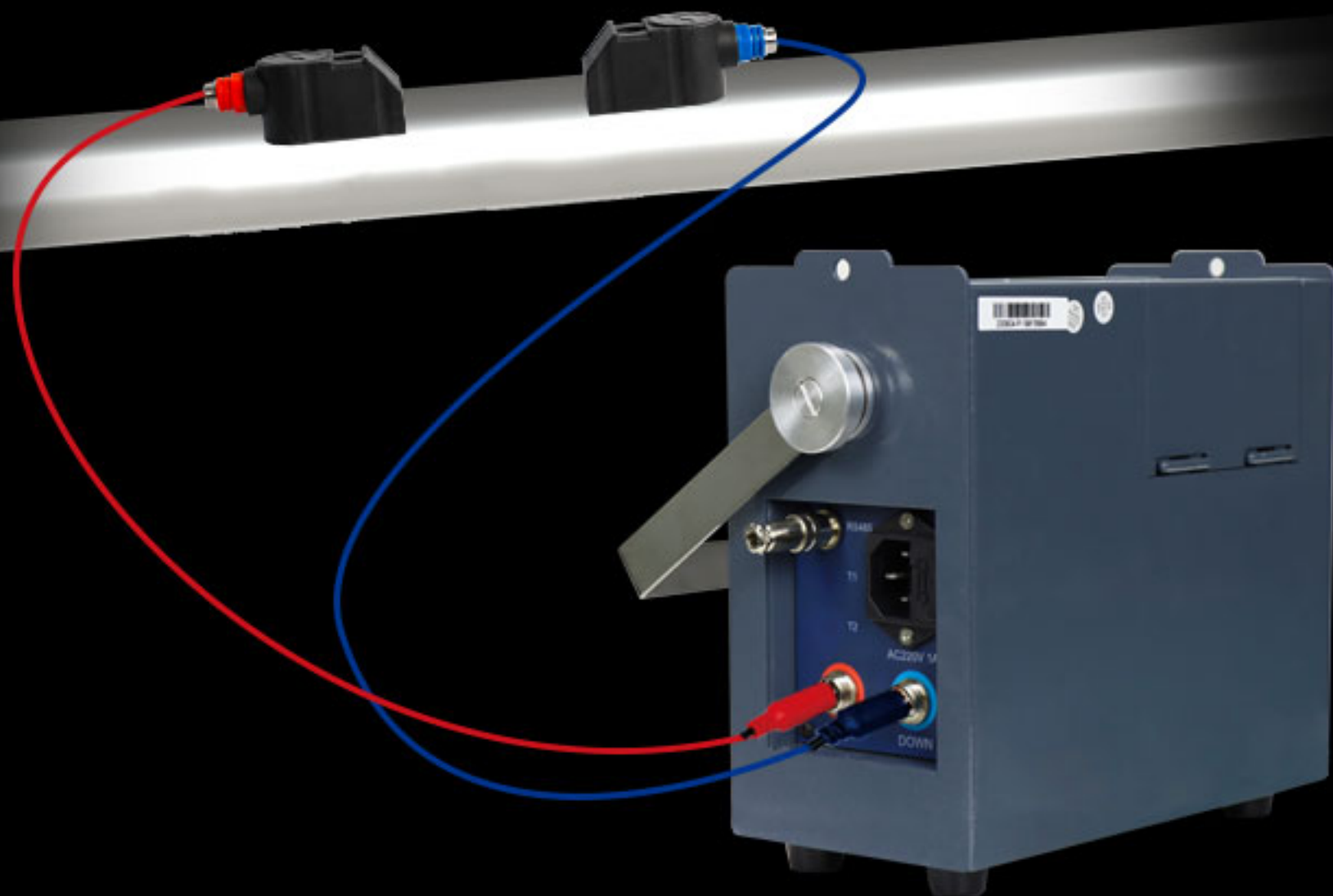


**04**

## Quick and Easy Installation

*Clamp on transducer*

*Save time with no pipe cutting or process shutdown*



**Wide Measuring Range : DN15mm ~ DN6000mm**

05

## Power Supply: 9.6V Ni-MH batteries

*Battery-driven design allows you to take measurement when and where needed*

### Rechargeable

Sustainable use

### Build-in Battery

20 hours of continuous operation



**06**

## Carring Case

*Packed in aluminum cases, easy to carry*



**Size: 470 x 350 x 130 mm**

### All necessary including

- Flow transmitter
- Transducer
- Acoustic gel
- Signal cable
- Clamps and chains
- AC power recharger
- 2 rolls of paper
- Tape



# 07

## Common Pipe Materials












Aluminum, Cement Pipe and Other Uniform Pipeline,  
Liner is Allowable.

# SPECIFICATIONS

Items	Specifications
Main Unit	2 line x 20 character LCD with backlight
	Working temperature:-20°C - 60°C
	Mini thermal printer with 24 line character output
	4x4+2 pushbutton keypad
	RS485 serial port
Transducers	S1: small size transducer (magnetic) for pipe size: DN15-100mm, liquid temperature $\leq 110^{\circ}\text{C}$
	M1: medium size transducer (magnetic) for pipe size: DN50-1000mm, liquid temperature $\leq 110^{\circ}\text{C}$
	L1: Large size transducer (magnetic) for pipe size: DN300-6000mm, liquid temperature $\leq 110^{\circ}\text{C}$
Liquid types	Water, sea water, industrial sewage, acid and alkali liquid, various oils etc. liquid which can transmit sound wave.
Flow velocity range	0~10m/s
Accuracy	Better than $\pm 1\%$
Power Supply	Built-in rechargeable Ni-MH battery (for 20 hours operation) or AC 220V
Power Consumption	1.5W
Charging	Intelligent charging with AC 220V. After charging sufficiently, it automatically stop and display green light
Weight	Net weight: 2.5kg (main unit)
Remarks	With a high strength carrying case suitable for normal and harsh environment

## Transducer Selection

One or more pairs of transducer can be selected

Type	Picture	Specification	Measuring range	Temperature range
Clamp on type		Small-size	DN15mm~DN100mm	-30°C~90°C
		Middle-size	DN50mm~DN700mm	-30°C~90°C
		Large-size	DN300mm~DN6000mm	-30°C~90°C
High temperature clamp on type		Small-size	DN15mm~DN100mm	-30°C~160°C
		Middle-size	DN50mm~DN700mm	-30°C~160°C
		Large-size	DN300mm~DN6000mm	-30°C~160°C
Mounting bracket clamp on		Small-size	DN15mm~DN100mm	-30°C~90°C
		Middle-size	DN50mm~DN300mm	-30°C~90°C
		King-size	DN300mm~DN700mm	-30°C~90°C



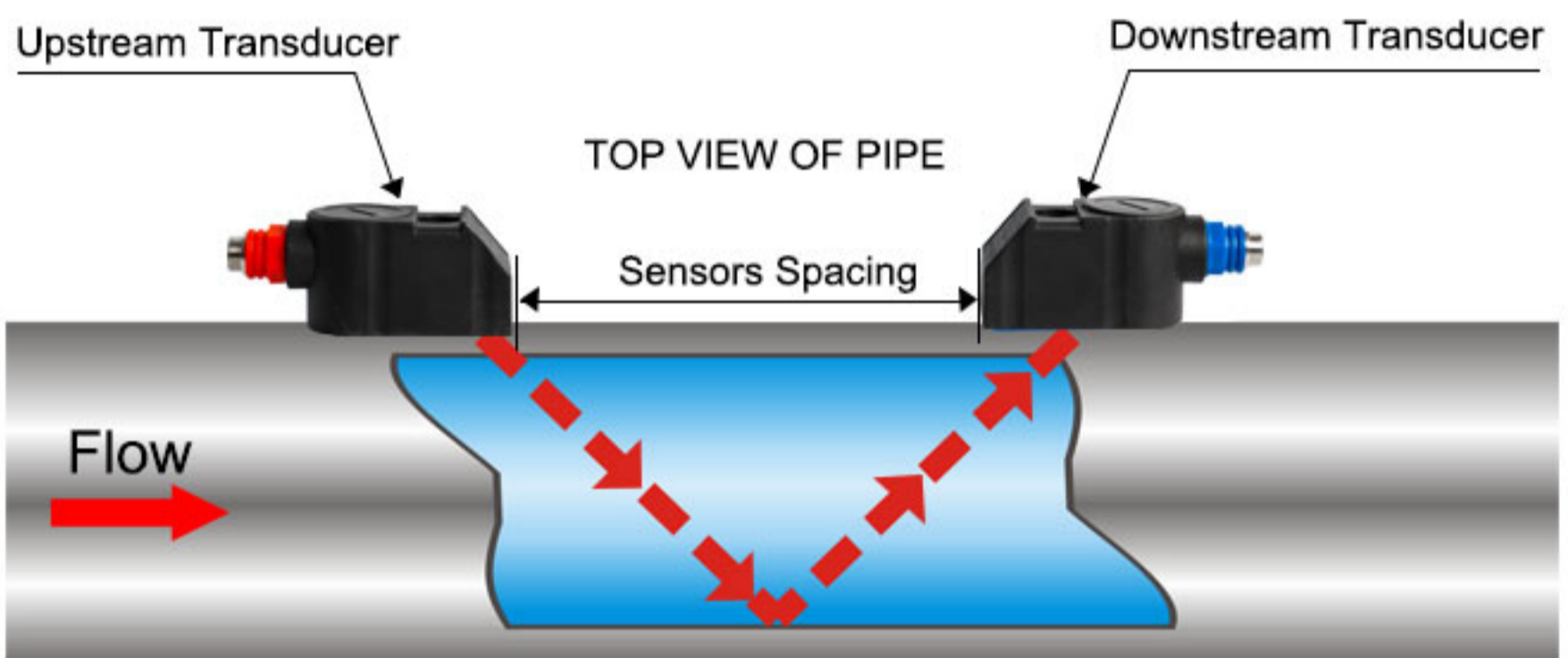
Clamp on type mounting

Bracket mounting

# INSTALLATION

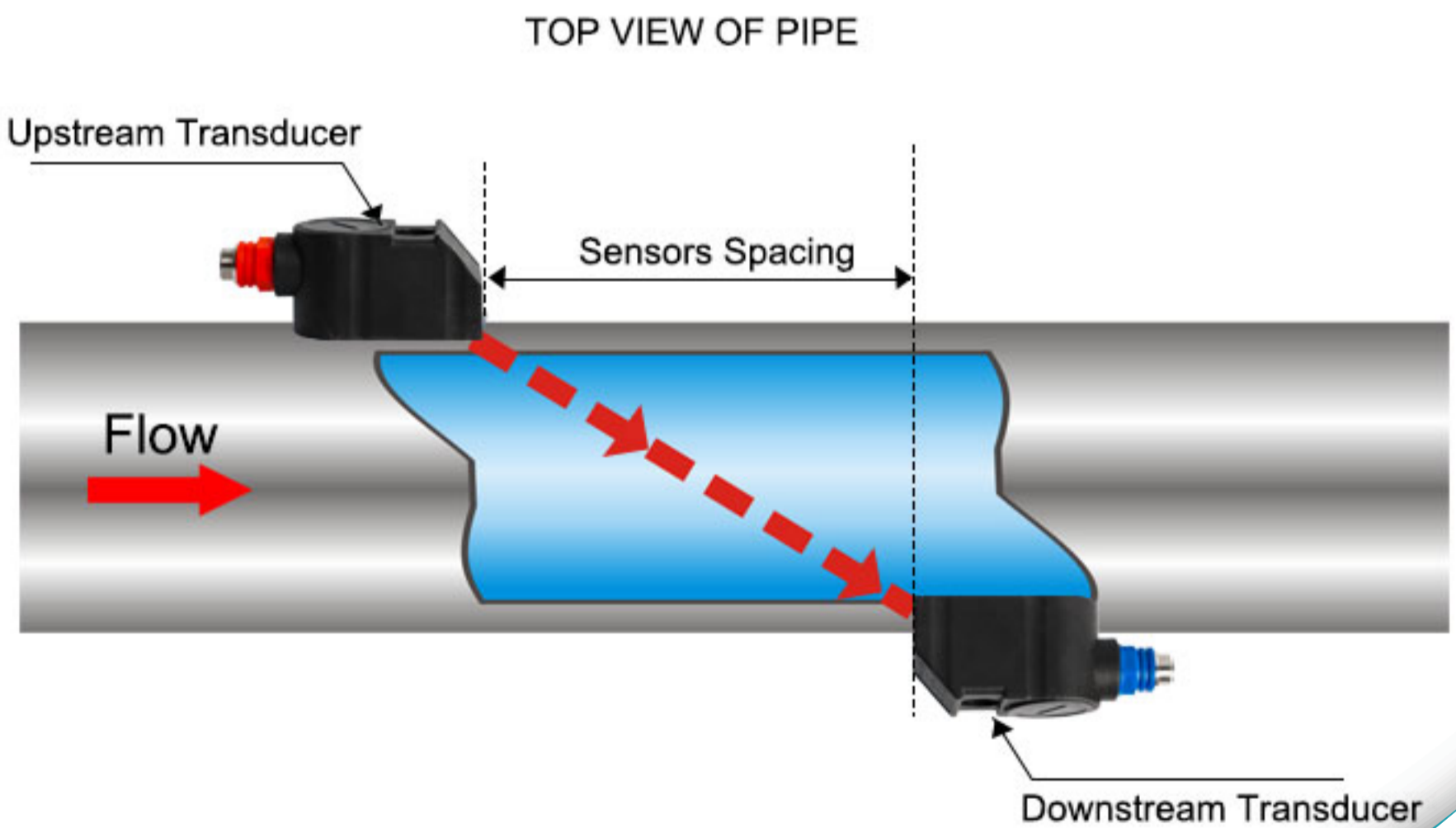
## 1. V-method Installation

V-method installation is the most widely used mode for daily measurement with pipe inner diameters ranging from DN15mm ~ DN200mm. It is also called reflective mode or method.

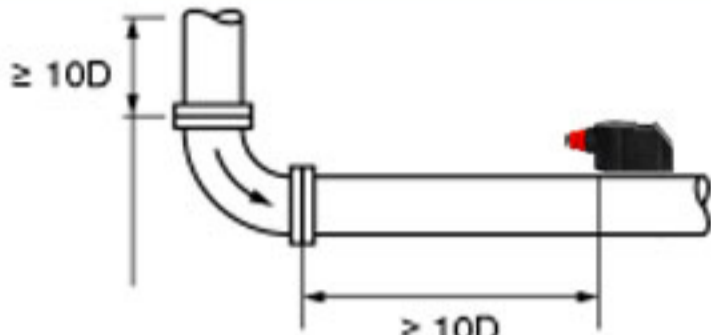
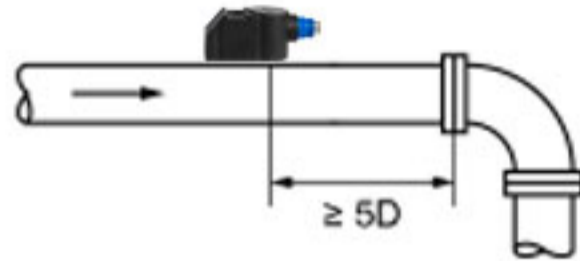
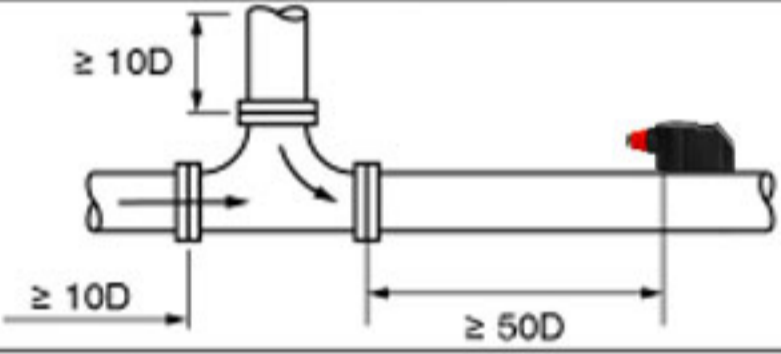
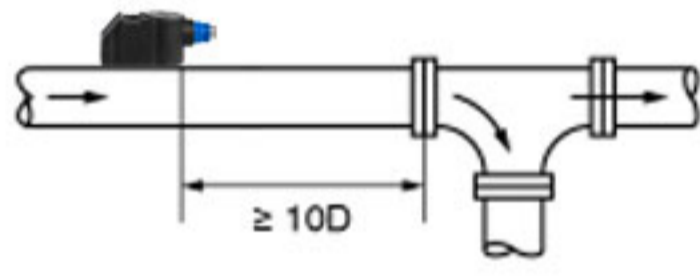
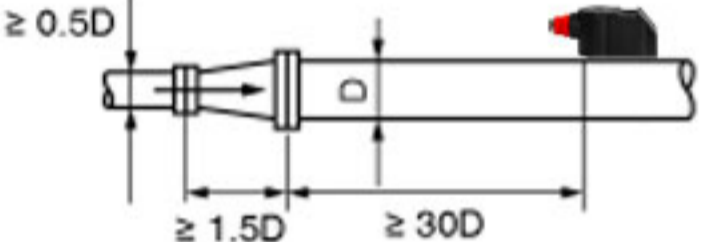
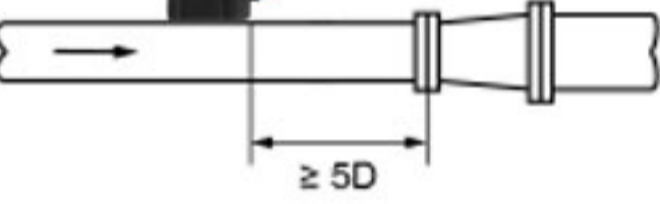


## 2. Z-method Installation

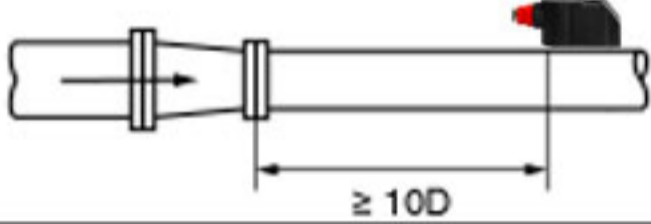
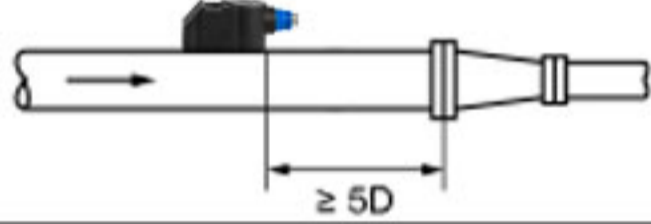
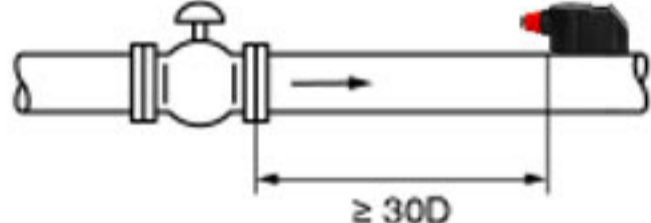
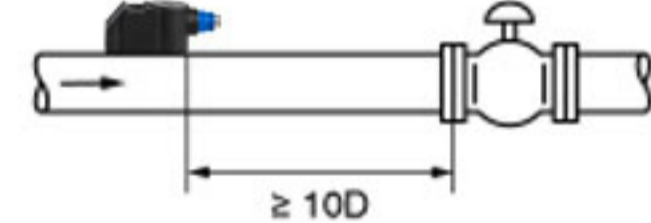
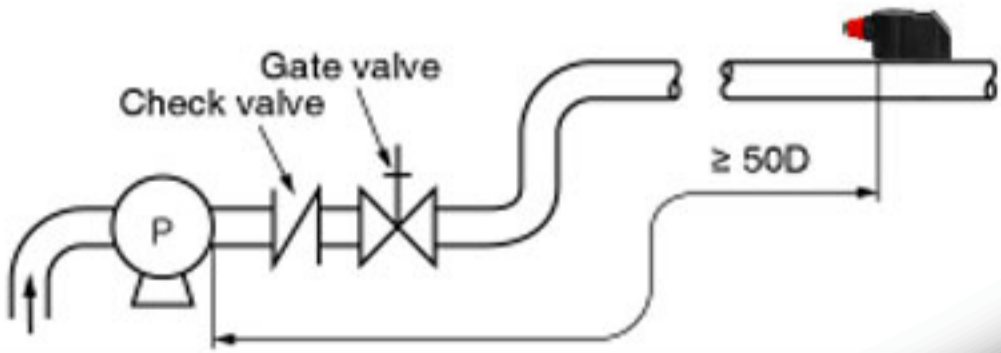
Z-method is commonly used when the pipe diameter is above DN300mm.



### 3. Piping Requirements

	Upstream	Downstream
90° bend		
T-shaped pipe		
Expanding pipe		

(D: inside diameter of pipe)

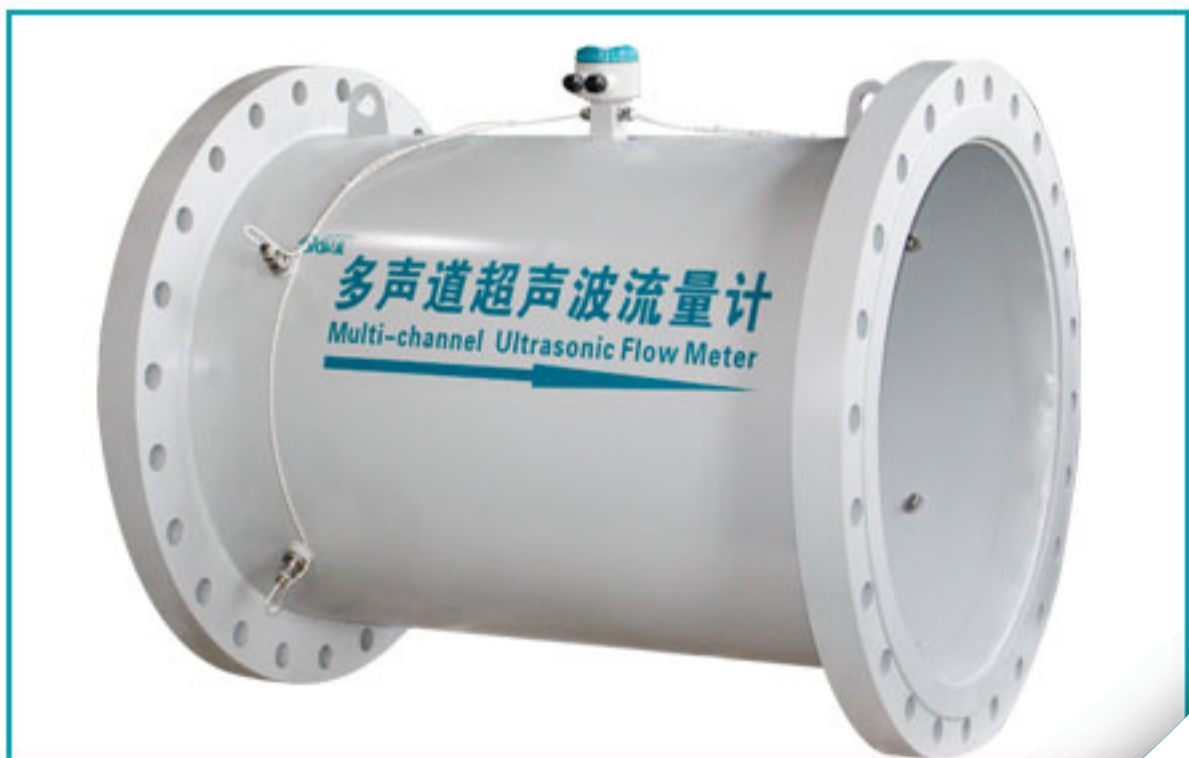
	Upstream	Downstream
Tapered pipe		
Valves	 In the case where a flow control valve exists on upstream side	 In the case where a flow control valve exists on downstream side
Pump		

# CALIBRATION



Calibration Equipment Accuracy: 0.2%

# MORE PRODUCTS



# PACKING OF PRODUCTS



## Transportation

**BY Air:** Quick and fast, reducing the delivery time

**By Ocean /Train:** Large transportation volume  
Economical shipping way

User can make the suitable choice according to the actual situation.



# HONOR & CERTIFICATE

## International Organization Certificates



ISO9001



International Trade Mark





# PROFESSIONAL EXHIBITIONS

