

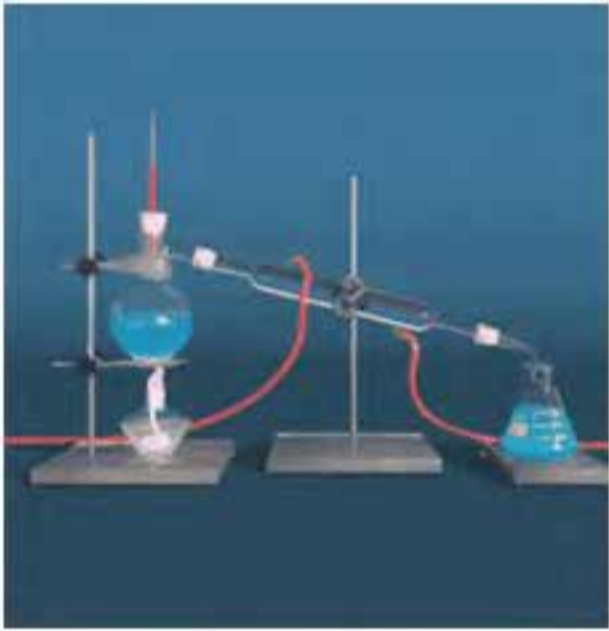
PORTABLE ULTRASONIC FLOWMETER

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

Easy to
Change
the Paper



02

Backlit LCD and Front Panel Operation

English+Chinese OR English+Italian+Turkish



User can select which value to show on each line

High Accuracy
 $\pm 1.0\%$
of Rate



03

Multiple Inputs and Outputs



3 way 4-20mA input, acquire signals such as temperature, pressure and liquid level (optional)

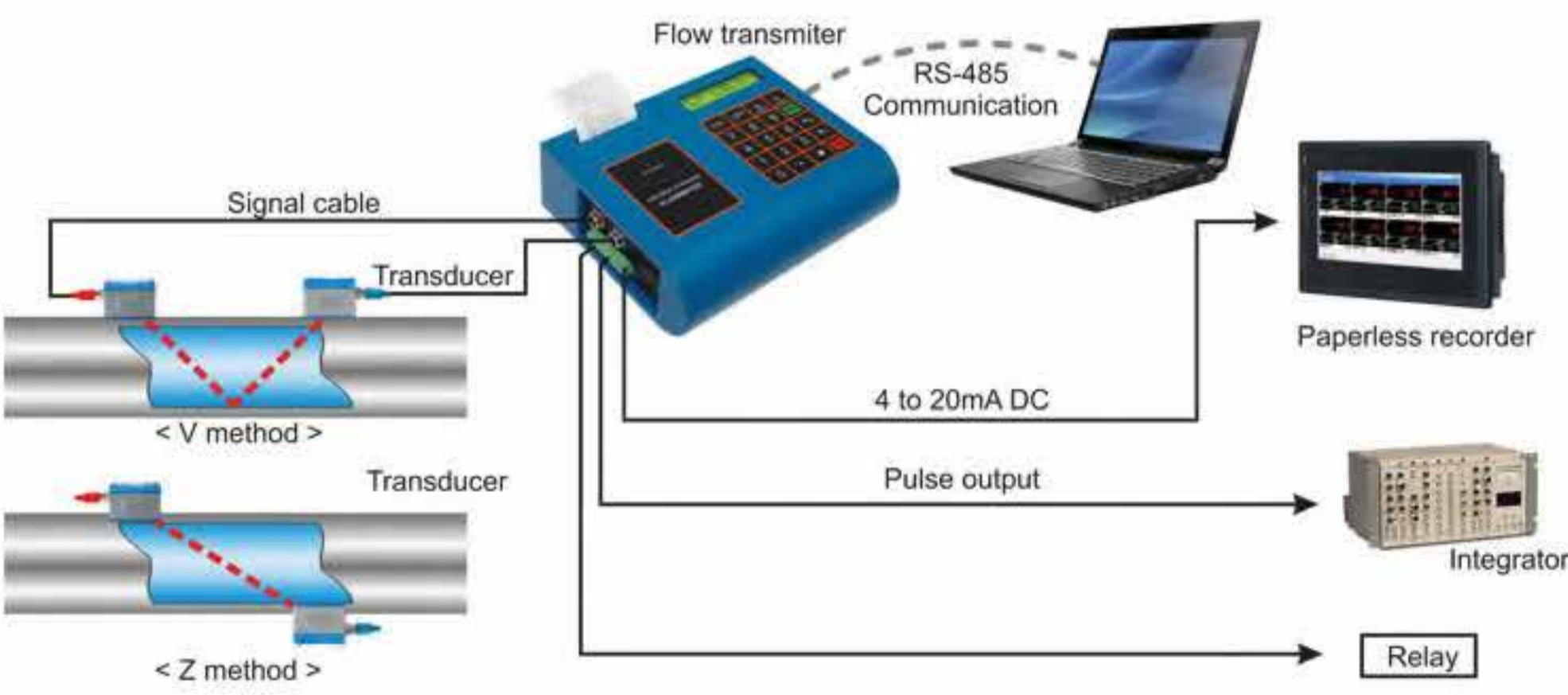
Relay output (optional)

Pulse output (optional)

4-20mA output (optional)

RS485 Communication (standard)

Example of System Configuration

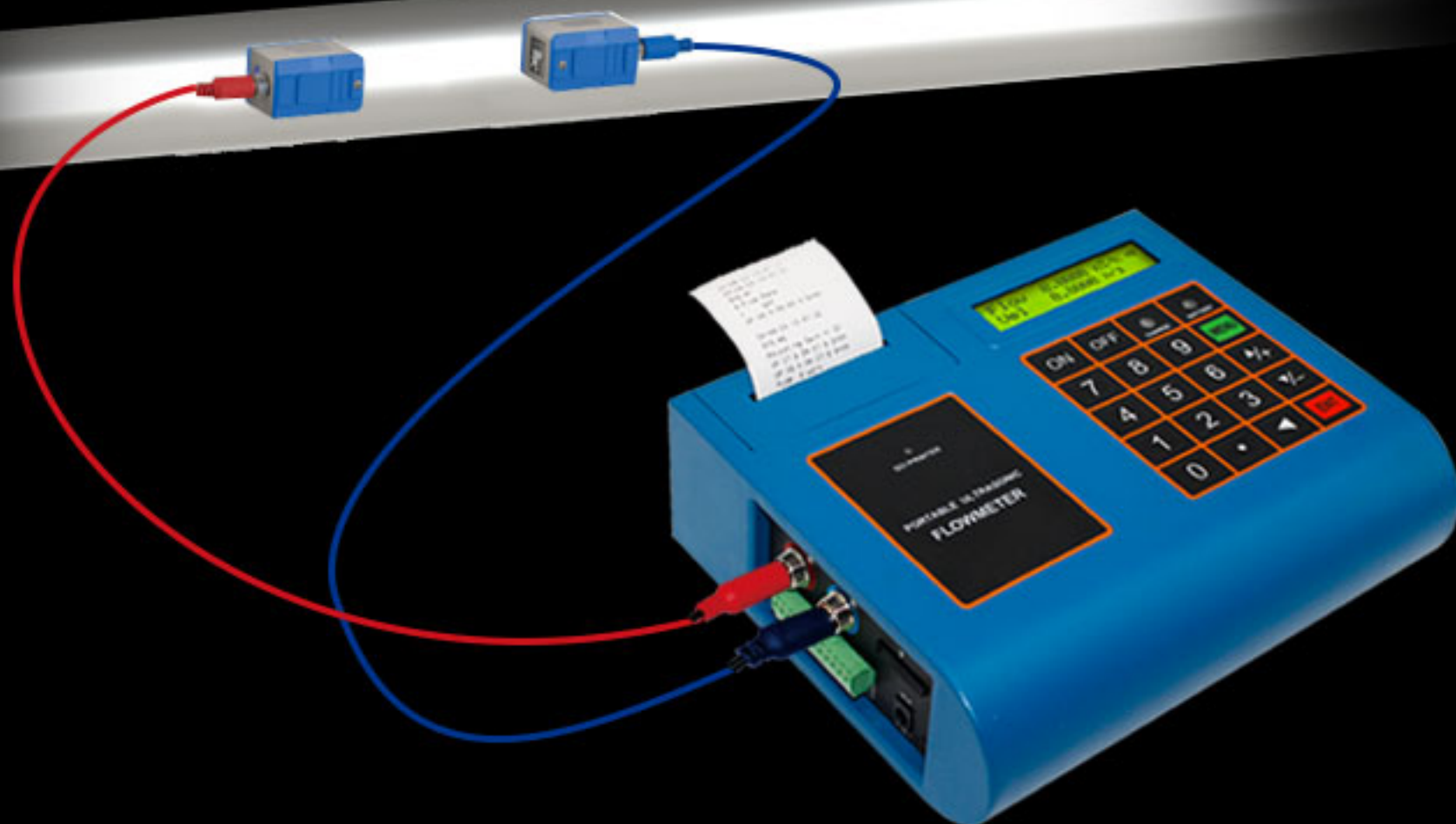


04

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 coupler(silicone grease)
- 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	TS-1: small size transducer (magnetic) for pipe size: DN15-100mm, liquid temperature $\leq 110^{\circ}\text{C}$
	TM-1: medium size transducer (magnetic) for pipe size: DN50-1000mm, liquid temperature $\leq 110^{\circ}\text{C}$
	TL-1: 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- $\pm 10\text{m/s}$
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

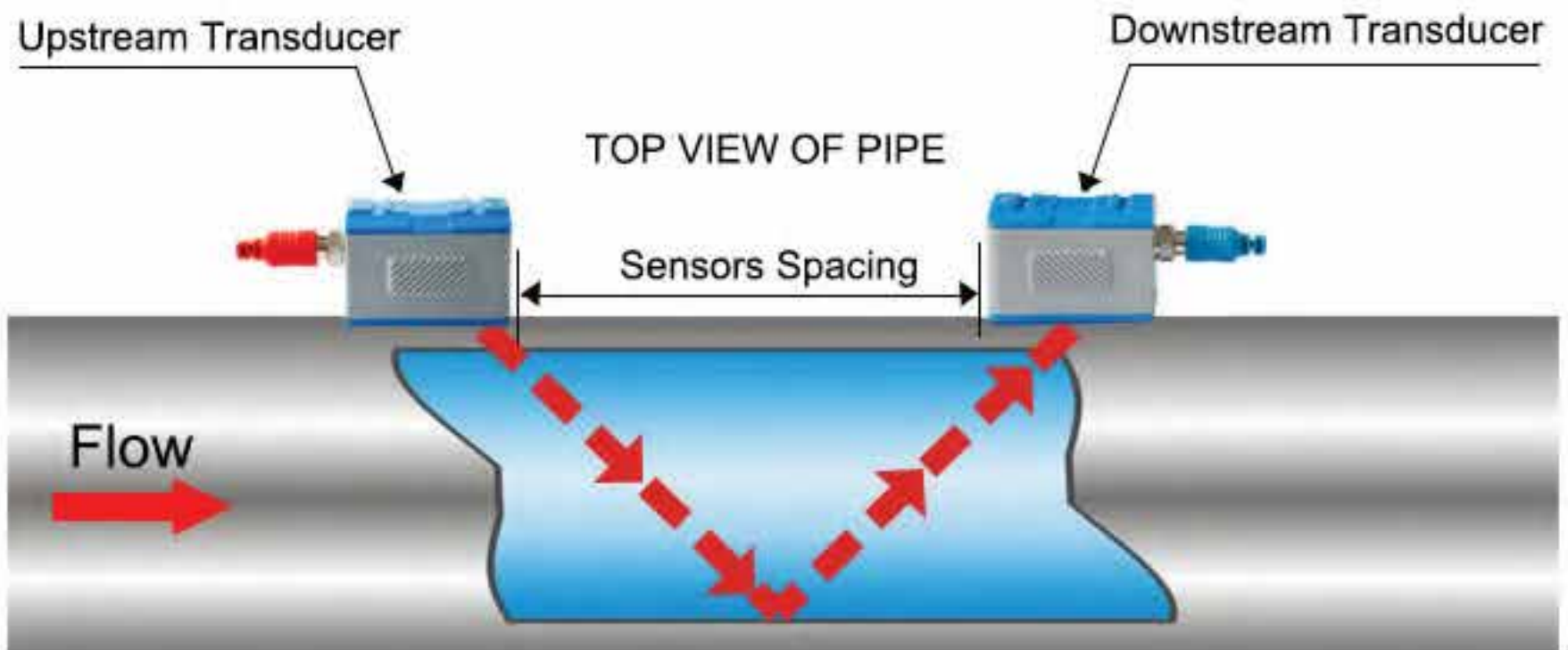


Bracket mounting

INSTALLATION

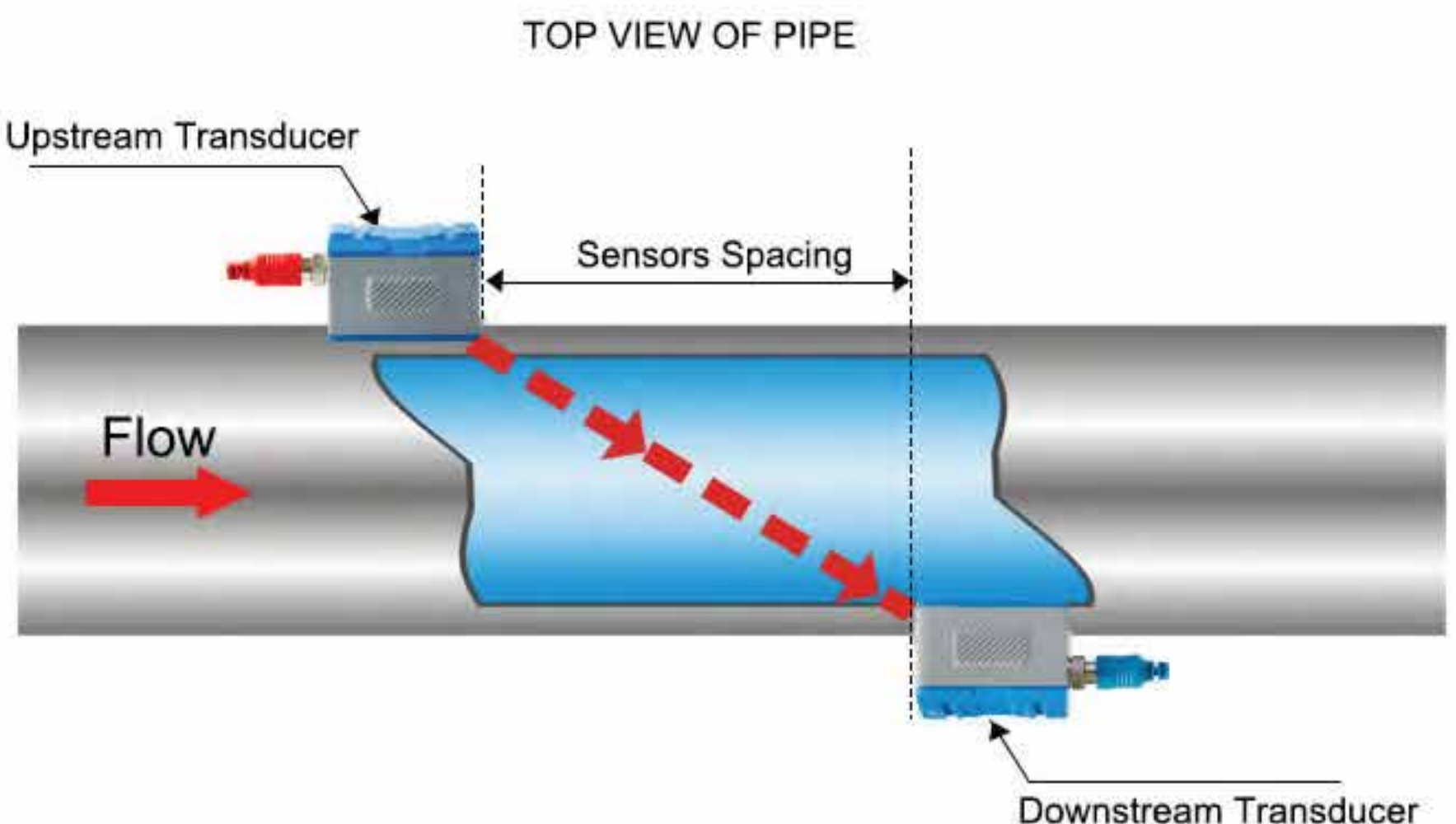
1. V-method Installation

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.

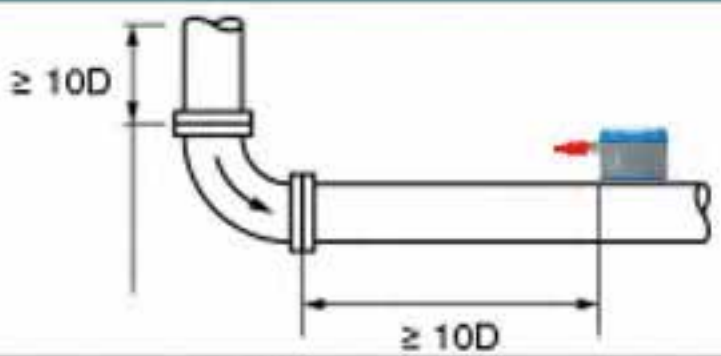
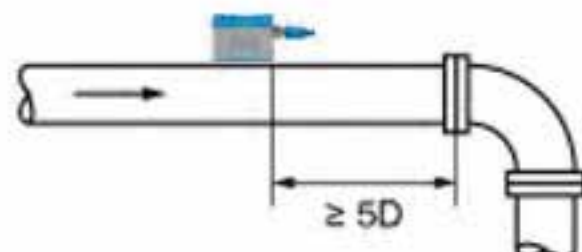
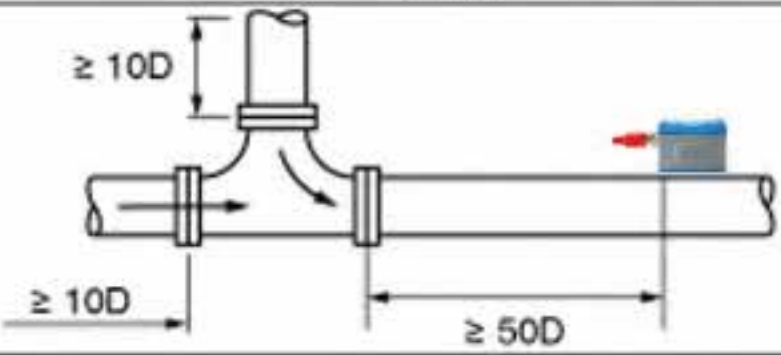
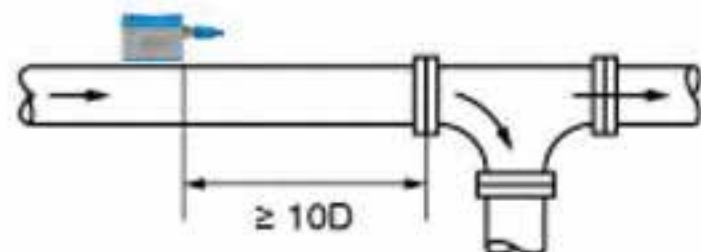
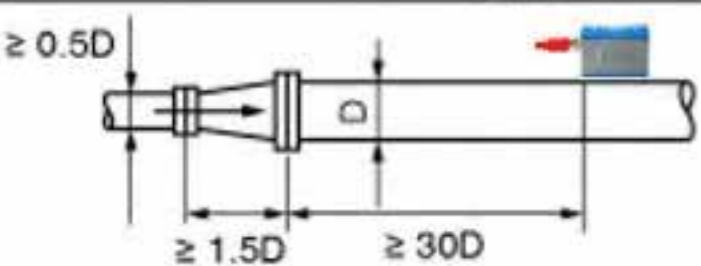
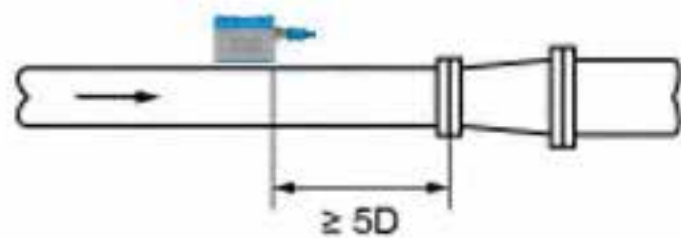


2. Z-method Installation

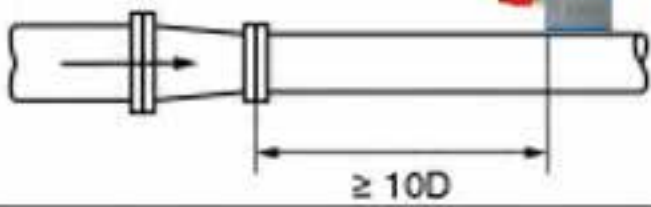
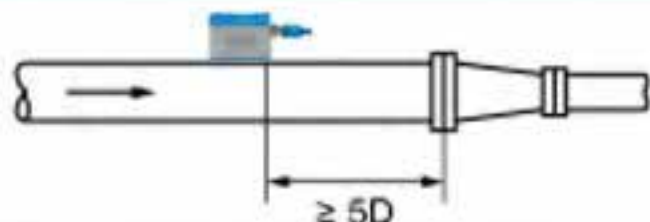
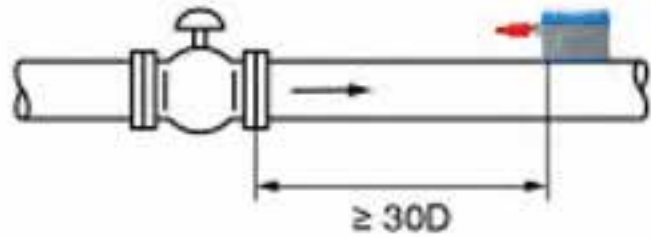
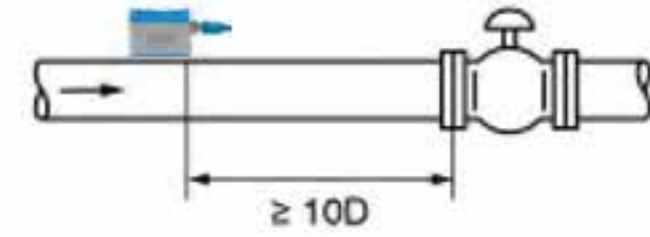
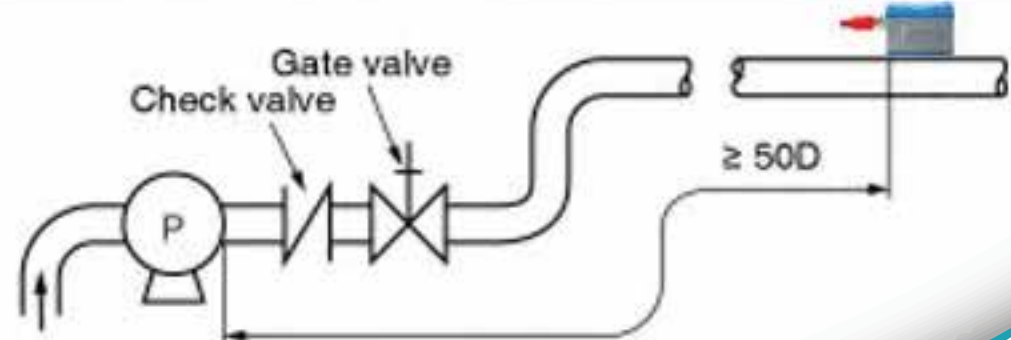
Z-method is commonly used when the pipe diameter is above DN300mm.



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



认证证书 - Certificate - 合格证书 - 合格



International Trade Mark



CE

PROFESSIONAL EXHIBITIONS



Show



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01

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