

USN-SP-SERIES
ULTRASONIC FLOW METER



HD LCD Screen

Function Button

Wiring terminal

External Clamp Flow



Item		Specifications
Main unit	Accuracy	Better than 1.5%±
	Repeatability	Better than 0.2%
	Principle	Transit-time measuring principle
	Measurement Period	500 ms
	Display	LCD with backlight. Display accumulated slow/heat ,instantaneous flow/heat, velocity, time, etc.
	Output	Analogu output; 4-20mA or 0-20mA current output Impedance 0..1kW. Accuracy of 0.1% RS485 serial port
	Input	Three analog input Three-wire PT100 resistor input
	Other Functions	Automatically record the totalizer data of the last 64 days 64 months /5 years; The power-on time and corresponding flow rate of the last 64 power on and off events. Allow manual or automatic flow loss compensation The instrument working status of the last 64 day
Pipe	Material	Steel, stainless steel, cast iron, cement pipe, copper, PVC, aluminum, FRP, etc, Liner is allowed
	Size	15-1600mm
	Straight pipe section	In the upstream it must be beyond 10D, in the downstream, it must be beyond 30D from the access of the pump. (D stands for pipe diameter
	Types	Water, seawater, industrial sewage, acid & alkail liquid, alcohol, beer, all kinds of oils which can transmit ultrasonic single uniform liquid.
	Temperature	Standard -30°C to 90°C ,High-temperature-30°C - 160°C
	Turbidity	Less than 10,000ppm, with a little bubble
	Flow Direction	Bi-directional measuring, net flow/heat measuring
Environment	Temperature	Main Unit -30°C to 80°C
		Transducer -40°C to110°C Temperature, select on enquiry
	Humidity	Main Unit 85% RH Transducer, water-immersible, water depth less than 3m
	Shielded dual- core, the standard length of 5m*2, can be extended to 500 m (not recommended); Contact the manufacturer for longer cable requirement . RS-485 interface, transmission distance up to 1000 m	
Power Supply	AC220V or DC24V	
Power Consumption	Less than 1.5W	
Protocal	MODBUS, M-BUS, Fuji extended protocol, and other factory protocol	

Ultrasonic Flow Meter USN-SP-SERIES

Product Details

RENNIQ

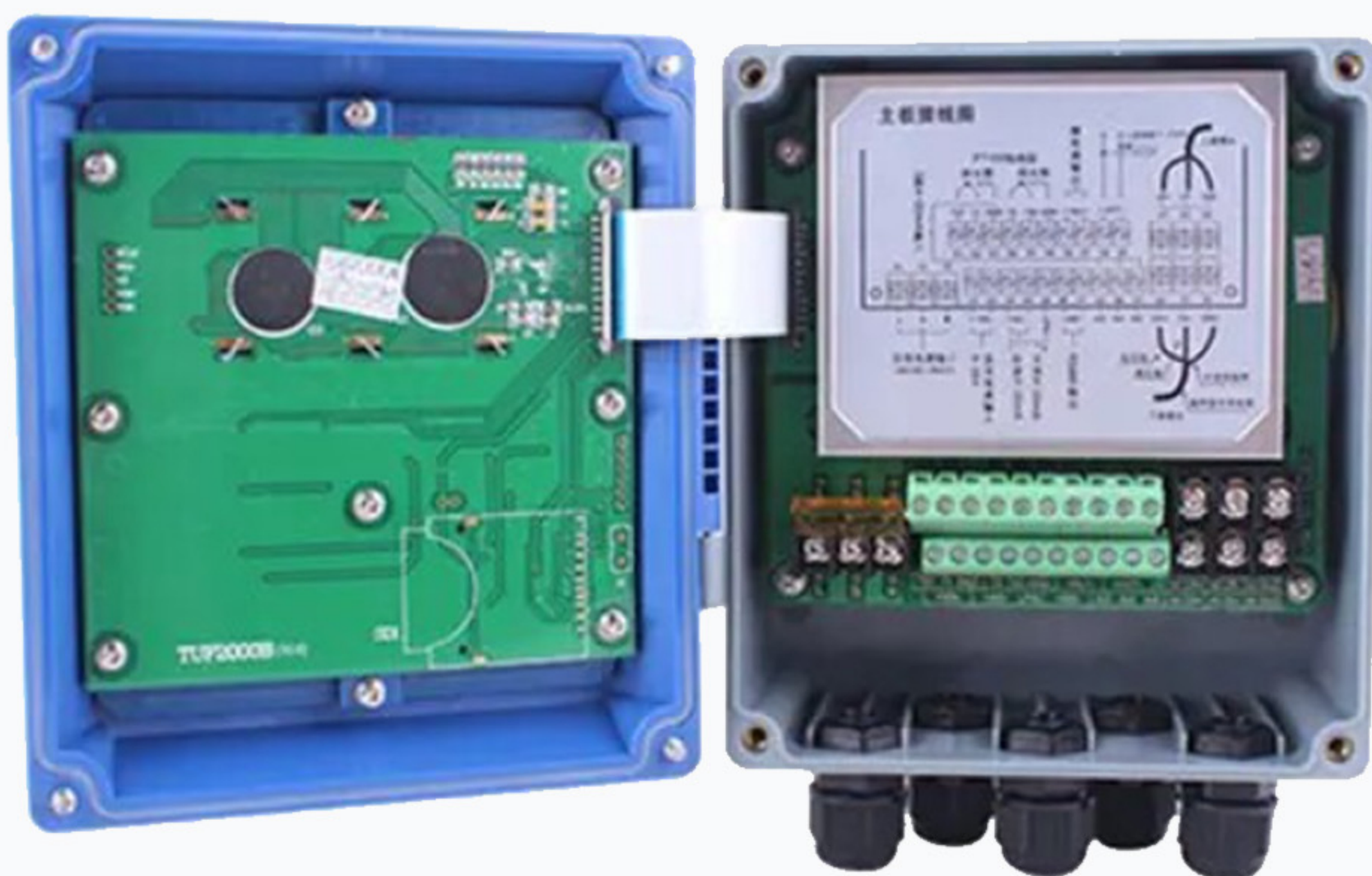
IP67 protective housing

The shell adopts IP67 protection, anti-corrosion, moisture-proof, outdoor installation, long-term stability



High performance chip

Stable performance, SMT automatic SMT circuit, high quality, high performance, more accurate use



ABS electrical interface

ABS electrical interface, waterproof and dustproof, not easy to aging and cracking, long service life



Ultrasonic heat meter

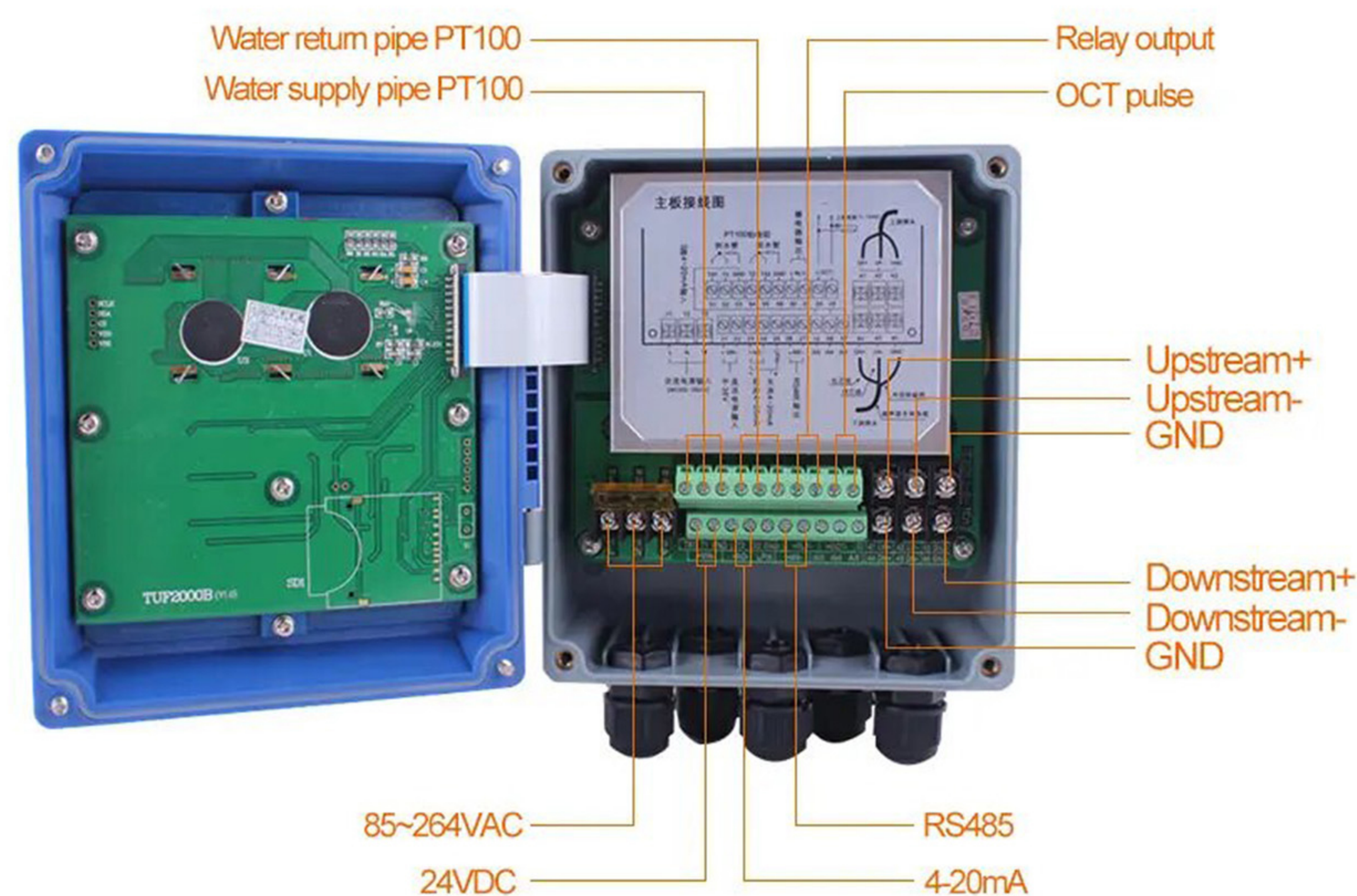
Two temperature sensors are connected, which are placed in the position of the water supply pipe and the water return pipe to measure the temperature, and the heat is converted by the intelligent host



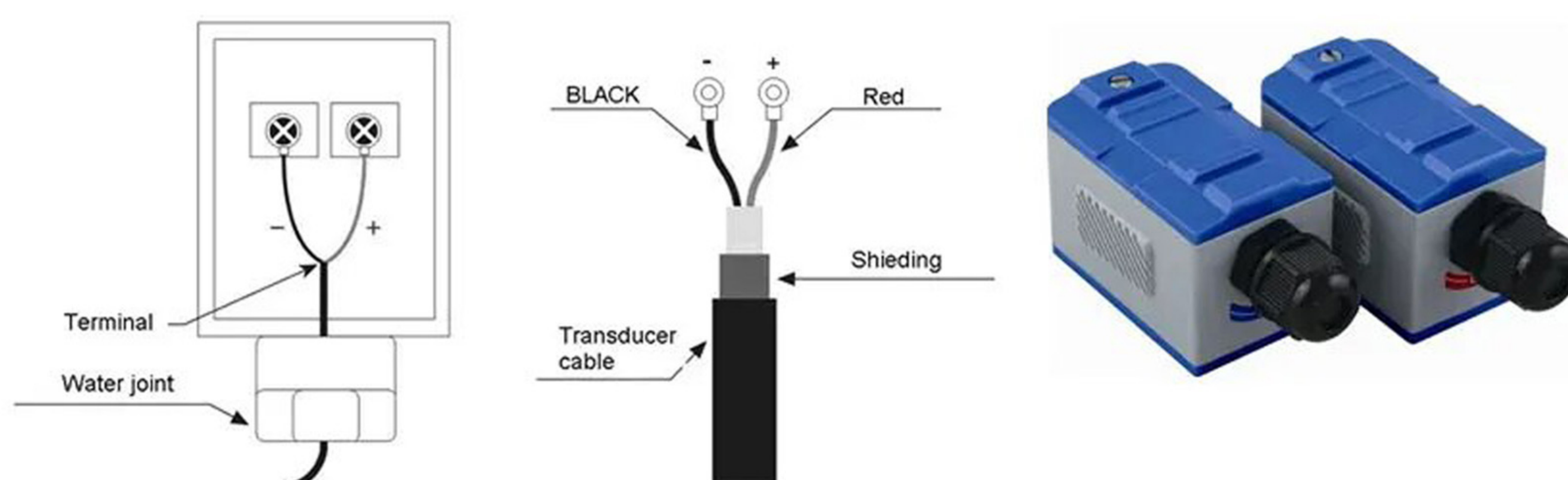
Flow Sensor Probe

 Normal temperature probe	Type	Model	Pipe Diameter	Temp.	Probe Size
	Small Type	L1	DN15~DN100	-30~80°C	45x25x32mm
	Middle Type	L2	DN80~DN700	-30~80°C	64x39x44mm
 High temperature probe	Large Type	L3	DN300~DN6000	-30~80°C	97x54x53mm
	Small Type	L1	DN15~DN100	-30~110°C	45x25x32mm
	Middle Type	L2	DN50~DN700	-30~110°C	64x39x44mm
	Large Type	L3	DN300~DN6000	-30~110°C	97x54x53mm

Ultrasonic Flow Meter Host Wiring



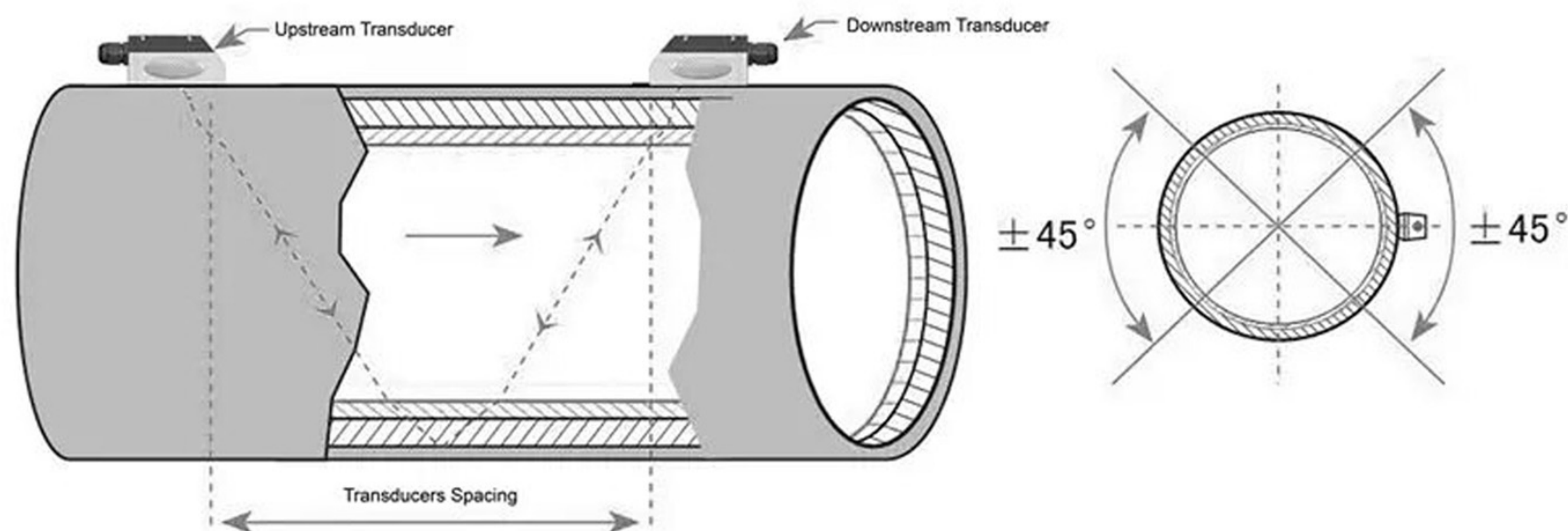
Ultrasonic Flow Meter Host Wiring



Product Installation

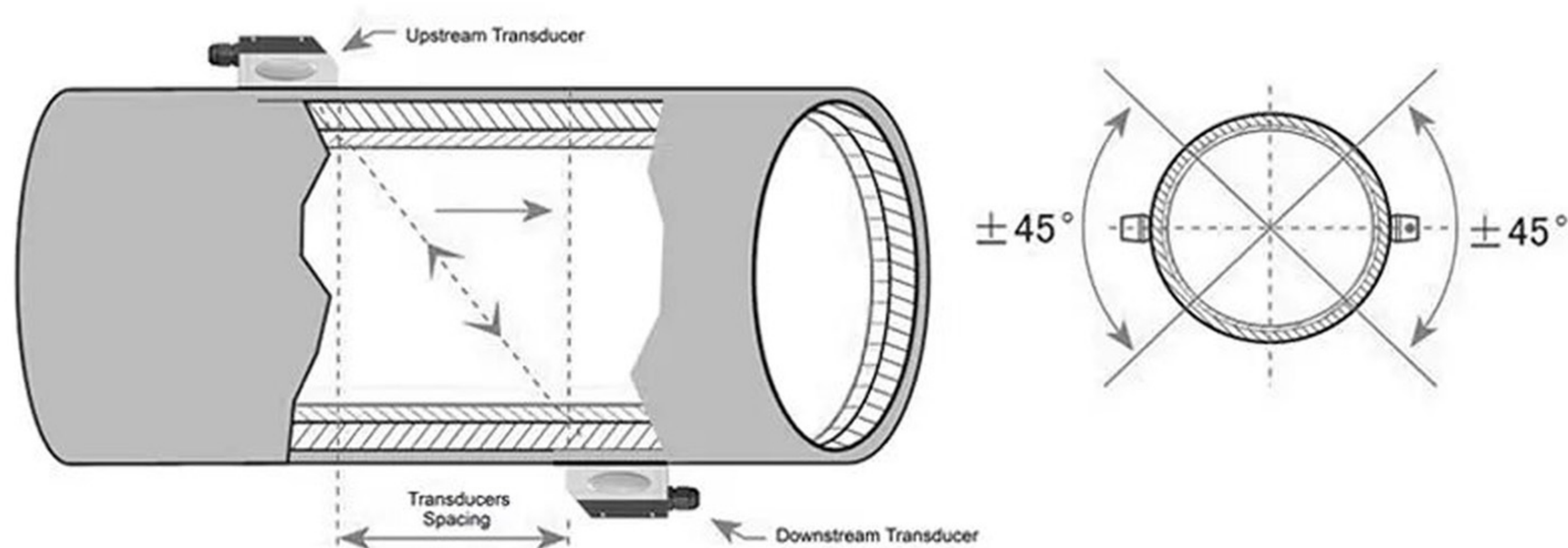
V-method Installation

V-method installation is the most widely mode for daily measurement with pipe inner diameters ranging from 15 mm to 200 mm. It is also called reflective mode.



Z-method Installation

Z-method is commonly used when the pipe diameter is above 200mm.



W-method Installation

W-method is usually used on pipes with a diameter from 15mm to 50mm.

