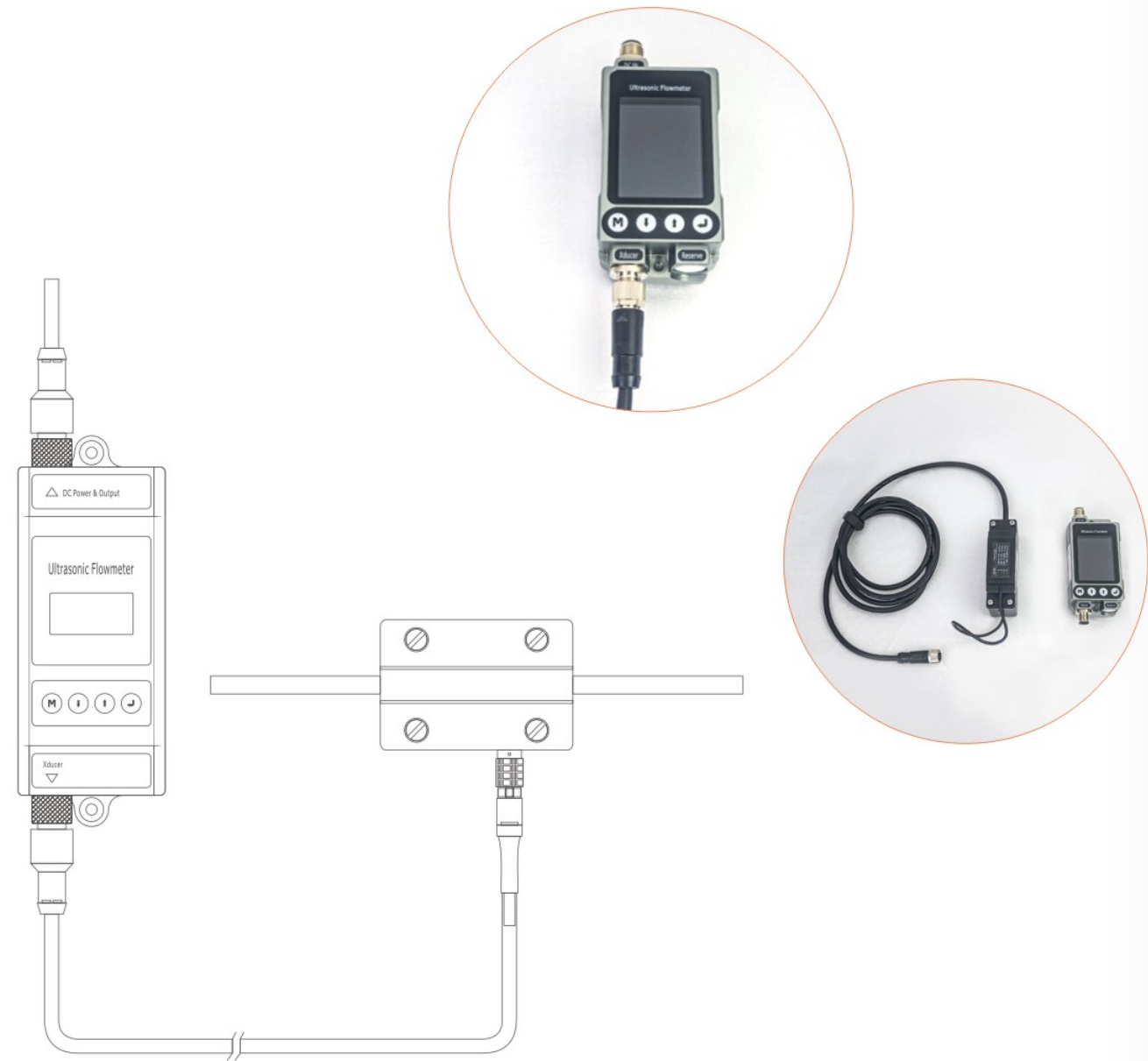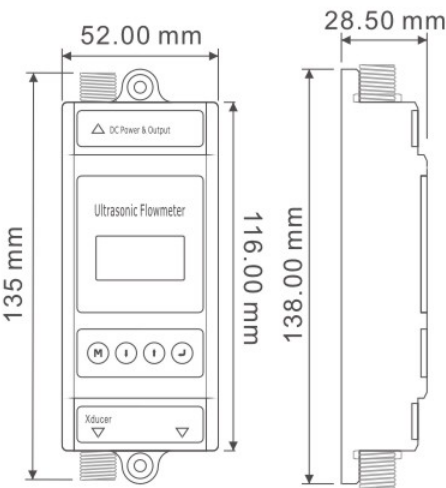# Operating Manual for Microtube Ultrasonic Flowmeter

Application industry

The micro-tube ultrasonic flowmeter is specifically designed for the measurement requirements of small pipe diameters such as hoses and hard pipes. It is mainly used in applications in industries such as semiconductors, medical care, chemical production processes, fine chemical production, cleaning industries, and beverage industries...
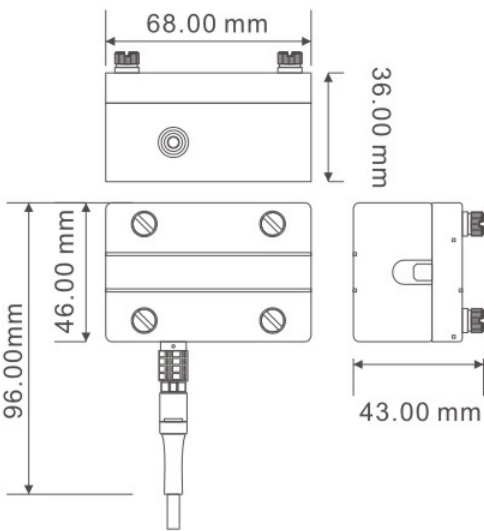
It adopts a socket connection method, which is simple to install and operate, and can be used immediately after plugging in. The through-beam sensor ensures the effective measurement distance and reliability, with good measurement stability. The entire micro-tube ultrasonic flowmeter is made of PP/PFA material through CNC processing, featuring good dimensional consistency and excellent acid and alkali resistance. It is convenient to connect to the application pipeline through the socket.

// Size specification

52.00 mm   28.50 mm
135 mm   116.00 mm   138.00 mm

Sensor size (mm)

68.00 mm   36.00 mm
96.00mm   46.00 mm   43.00 mm

// Performance index

Model	Range of measurement	Accuracy	Outer diameter of the pipe	Inner diameter of the pipe
Product: Micro-tube easy-to-measure Ultrasonic Flowmeter				
-Φ4	0-4000ml/min	0-200m/min: ±6ml/min 200-4000ml/min: +2%	1/8" (4.2mm)	1/16" (2.1mm)
-Φ6.35	0-6500ml/min	0-300m/min: ±8ml/min 300-6500ml/min: +2%	1/4" (6.35mm)	1/8" (4.3mm)
-Φ8	0-9200ml/min	0-400m/min: ±10ml/min 400-9200ml/min: +2%	5/16" (7.9mm)	1/4" (6.4mm)
-Φ9.53	0-12600ml/min	0-600m/min: ±6ml/min 600-12600ml/min: +2%	3/8" (9.53mm)	5/16" (7.9mm)
-Φ12.7	0-17000ml/min	0-1000ml/min:±6ml/min 1000-17000ml/min:±2%	1/2" (12.7mm)	3/8" (9.5mm)

Performance parameters	
Repeatability	0.8%
Data storage	Cumulative by day, month and year
Response time	200ms
Analog output	4~20mA output, maximum load: 600Ω (optional)
Alarm output	OCT output, high and low flow output alarm (optional)
Communication interface	RS485
Power supply	24V DC power supply
Cable length	2.0 meters
Button press	Four touch buttons
Display screen	OLED 128*64 display screen
Unit of measurement	Support for the selection of metric and imperial units: Cubic Meters(m^3) Liters (L),Milliliter(ml) USA Gallons(GAL) It can be pressed by /hour (hour) or /minute (minute) The factory default is m^3/h
Suitable medium	Water, seawater, chemicals, oil... Such as
Shell material	The sensor is made of ABS material and the main unit is made of aluminum alloy material
Ambient temperature	0℃-50℃
Medium temperature	0℃-50℃
Environmental humidity	Relative humidity: 0-95%, no condensation
Protection grade	IP54