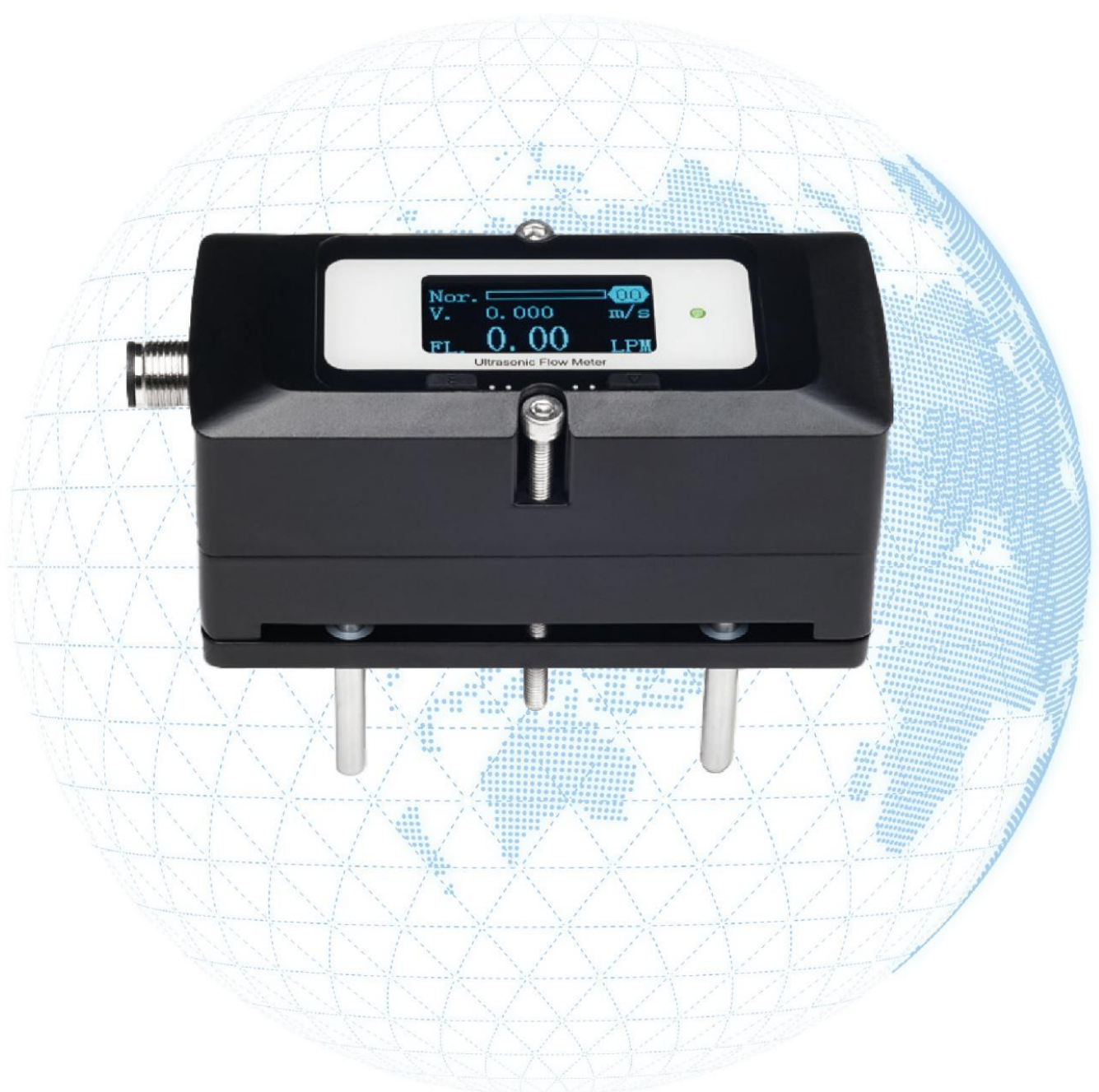# Product Manual

Ultrasonic FlowMeter 311
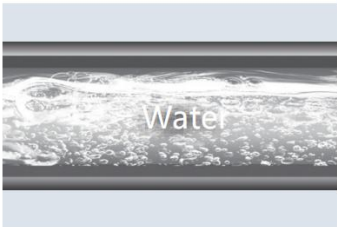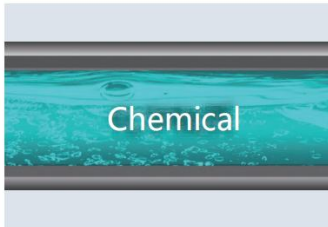
Product profile

The external clip integrated small diameter ultrasonic flowmeter adopts the integrated design, with the characteristics of small size, easy installation and operation, suitable for all kinds of small diameter pipeline liquid flow process monitoring.

- The measuring medium requires no electrical conductivity

- The installation process does not need to break the pipe, no need to stop production. No moving parts without pressure loss

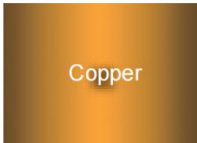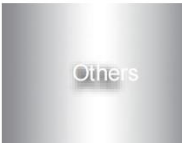- The installation personnel do not need professional training, and can complete the installation according to the installation video or the installation steps diagram

- PP glass fiber shell, there is no need to worry about the acid-base environment

All kinds of liquids and compatible with various pipeline materials and sizes: (common examples, if not listed, contact the factory for confirmation)

1 Applicable Fluids	Water	Oil	Chemical

2 Pipe Material	Metal pipe: SS、Iron、Copper			Plastic pipe: PVC、Others	
	Stainless Steel	Iron	Copper	PVC	Others

3 Pipe Diameter	DN10-D40 (DN8 for customization)

There are a number of help for a variety of traffic applications::

1
Display
Monitor the fluid directly on the device.

2
Alarm
Signal transmission to PLC , indicator light, etc

3
Record
Track operations to improve efficiency.

Product Parameter:

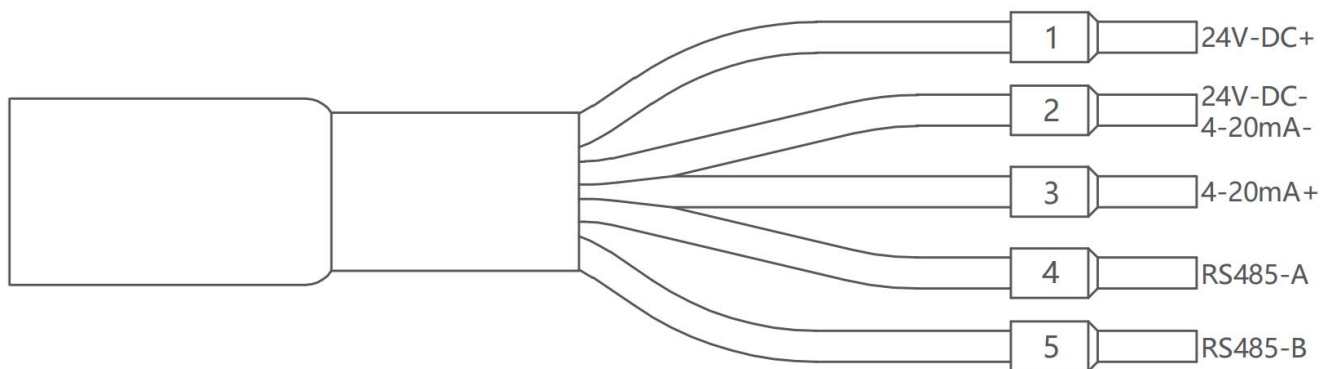|			
Shell material	PP glass fiber mix		
mounting screw	Stainless steel		
levels of protection	IP54		
vibration resistance	10 55 Hz, double amplitude 1.5mm, 2 hours each of the XYZ axis		
shock resistance	100 m/s2,16ms pulses, 1000 times for each of the XYZ axis		
specifications of the products	DN10、DN15、DN20、DN25、DN32、DN40		
Flow range	DN10	DN15	DN20
	2 - 30 LPM	5 - 60 LPM	10 - 100 LPM
	DN25	DN32	DN40
	10 - 150 LPM	20 - 260 LPM	20 - 400 LPM
Pipeline material	Stainless steel, carbon steel, copper, PVC, PP, and PVDF are dense pipes		
Measurement medium	Water, alcohol, gasoline, chemical solvents and other fixed composition (no solid particles and impurities)		
medium temperature	Standard sensor-10℃ -65℃ (not frozen) / medium temperature sensor-10℃ -105℃		
certainty of measurement	< 3% FS.		
response time	0.5s – 3s		
supply electricity	20-28VDC		
consumption	1W		
Power supply	M12-Type A-5 core, 1 core		
output	4-20mA		
communication	RS485 Modbus		
display screen	1.5'OLed (black and blue)		
press key	Touch-type mechanical keys, 2		
operating ambient temperature	-10℃ -60℃ (not frozen)		
storage temperature	-10℃ - 60℃		

Instrava
INDUSTRIAL MEASUREMENT
& CONTROL INSTRUMENTS

Interface

Interface type: M12-Type A-5 core

Interface definition:
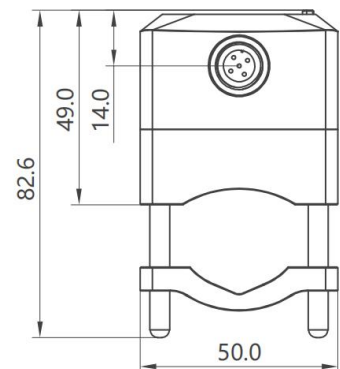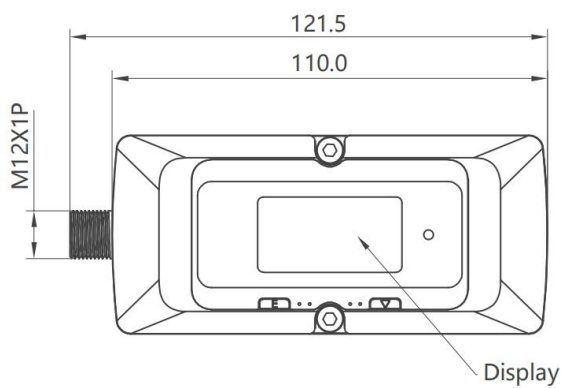
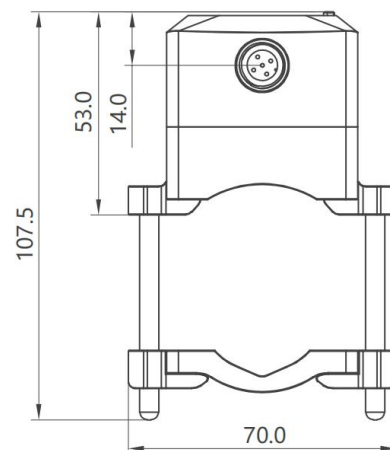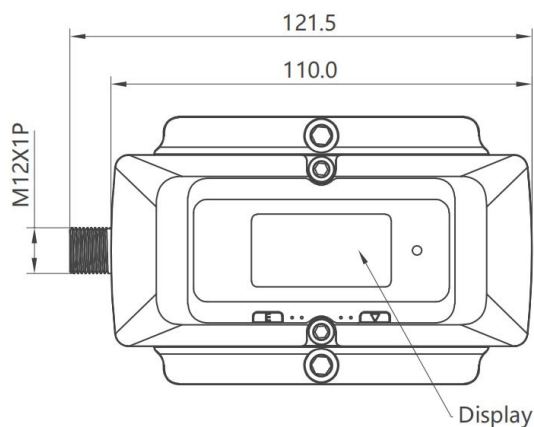| Color	Definition	Remarks
1.BROWN	24V DC 300mA	Power Supply Input +
2. BLACK	Flow 4-20mA OUT	Current output +
3. BLUE	0V	Power supply input- - / current output- -
4. WHITE	A	RS485
5. GRAY	B	

Interface wiring

Reference dimensional drawing: (Unit: mm)

DN10-DN25

DN32-DN40

121.5
110.0
M12X1P
Display

53.0
14.0
107.5
70.0

Model Selection:

Model and code	
	Measurement diameter: DN10-DN40
	Range: 0.08 m/s- -10 m/s;
	Accuracy: <3% FS (<1.5% FS after calibration)
	Measurement medium: Water / Other (single without solid particles and impurities)
	Power supply: 10 ~24VDC / 1A
	Sensor operating temperature: -10- -65℃ (not frozen)
	Others: cable standard with 2 meters
	Diameter
10A	DN10 external diameter 12-18mm
15A	DN15 external diameter 18-23mm
20A	DN20 external diameter 23-28mm
25A	DN25 external diameter 28-33mm
32A	DN32 external diameter 33-44mm
40A	DN40 external diameter 44-52mm
DN8	Please contact the factory
	temperature range
NO	-10—65℃
-C2U	-10-100℃

For example： 20A

External clip ultrasonic flowmeter, applicable diameter DN20, sensor temperature range-10-65℃, 24VAC power supply, with 4-20 mA current output and RS485 (Modbus) communication, standard cable length of 2m.

Chengdu JSH New Material CO., LTD.

WEB : www.instrava.com

Email : info@instrava.com

Whatsapp

Wechat

Manufacturer 1 : Zigong City, Sichuan Province, China

Manufacturer 2 : Chengdu City, Sichuan Province, China