ALSONIC

Low Flow Clamp on Ultrasonic Flow Meter

ALSONIC MN

GENERAL

SMARTMEASUREMENT'S ALSONIC-MN is designed for small pipe sizes with low and very low flow rates. The ALSONIC-MN doesn't require coupling gels used with standard clamp on ultrasonic flow meters. The plug and play method uses a circular magnetic steel clamp to achieve better contact between the traducers and the pipe wall. It takes only 2-3 minutes, considerably reducing clamp install time compared to clamp-on transducers.

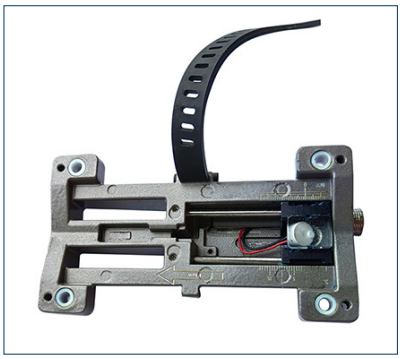
The Alsonic MN has individual fittings for pipes ranging from ½"~ 1½", LCD display, analog and MODBUS outputs. The Alsonic MN is designed for chemical, DI-water, food and beverage or applications with small pipes and low flows of relatively clean liquid or where contact with the fluid must be avoided. The ALSONIC MN can be used with many pipe materials such as stainless steel, carbon steel, copper, and various plastics (PVC, PVDF, PPR, PPH, HDPE).

SPECIFICATIONS

- **Measuring Principle:** Transit time ultrasonic
- **Flow range:** 0.1 m/s~5.0 m/s
- **Accuracy:** std ±2% RD, opt ±1%RD
- **Repeatability:** 0.8%
- **Pipe size:** ½" ~ 1½" (DN15~DN40)
- **Data storage:** Daily, monthly, flow rates and totals
- **Analog output:** 4~20 mA, Maximum load: 600Ω
- **Alarm output:** OCT, Upper and lower limit alarm function (optional)
- **Communication:** RS485/Modbus
- **Power supply:** 10-24 V_{DC}/1A
- **Case material:** Aluminum alloy and ABS
- **Protection:** IP65
- **Cable length:** 1.8m -std
- **Keypad:** Five button membrane key pad
- **Screen:** LCD 256*128 display screen
- **Units:** Metric and imperial units are available, Cubic Meters (m^3), Liters(L), US Gallons (GAL)/hour, /min, Default unit setting: m^3 /h
- **Totalizer:** Six digit
- **Piper material:** Stainless steel, carbon steel copper, plastic
- **Environment temp:** 32°F~122°F (0°C~50°C)
- **Medium temp:** 32°F~122°F (0°C~50°C)
- **Environment humidity:** 0-95% relative humidity, without condensation

METER COMPONENTS

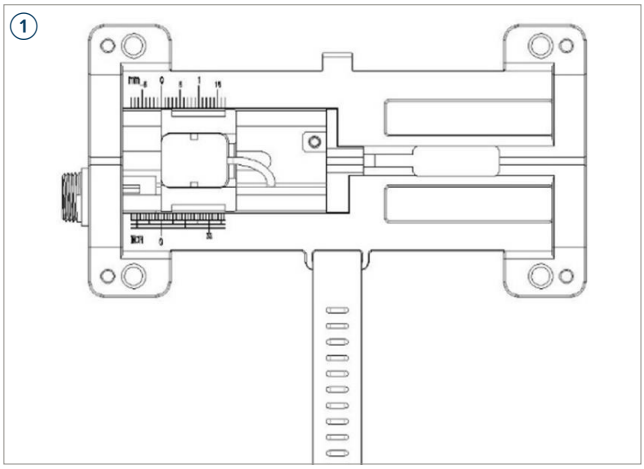
ALSONIC MN



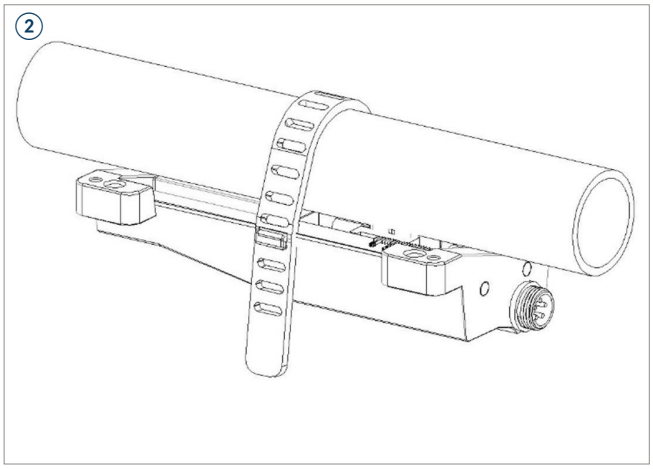
Clamp on transducer

Connecting Cables

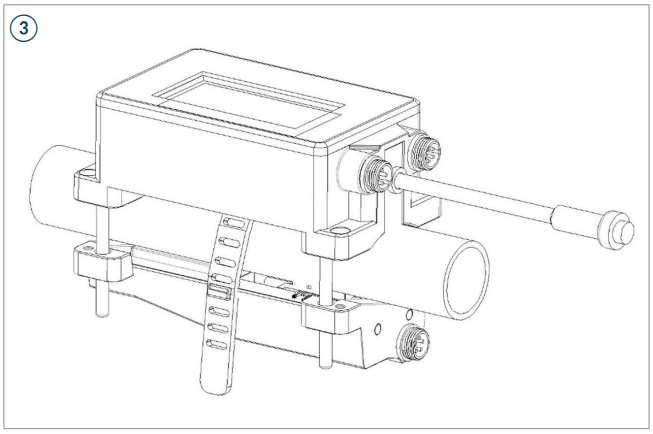
TRANSDUCER INSTALLATION STEPS



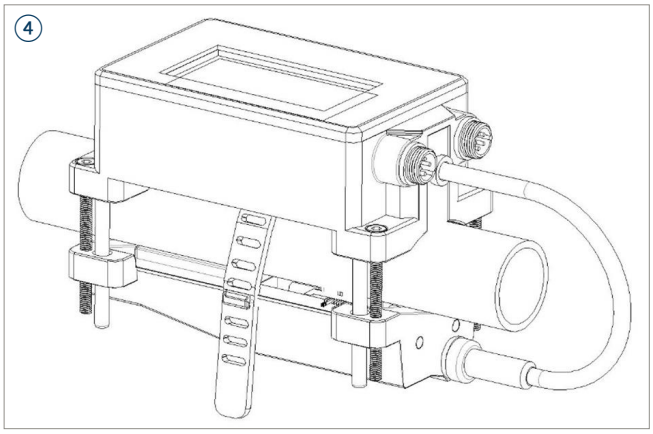
Set parameters M10 and M12 based on the pipe size and material on site, and adjust the end distance of the sensor according to the installation distance shown in menu M14, as shown in the illustration.



Fix the flow meter to the bottom part on the pipe using the supplied rubber strap.



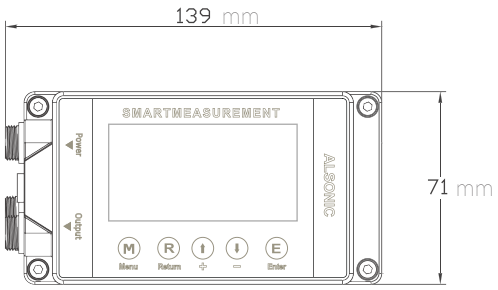
Insert the fasteners from top part of the assembly into the corresponding holes on the bottom half. Tighten the screws securely.

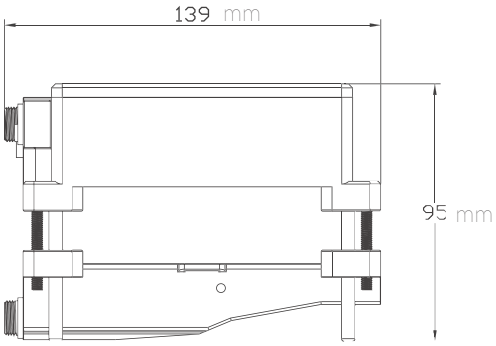


Insert the aviation plug from the upper cover into the corresponding position of the bottom cover and tighten it. The installation is complete.

ALSONIC MINI FLOW METER

■ DIMENSIONS



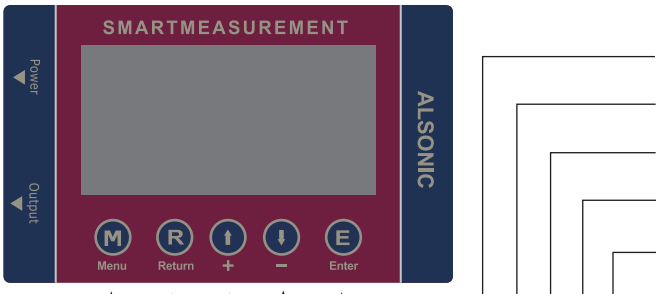


■ FLOW RANGE

Pipe diameter	Upper limit flow value (L/min)
½" (DN15)	60 L/m
¾" (DN20)	100 L/m
1" (DN25)	200 L/m
1¼" (DN32)	300 L/m
1½" (DN40)	400 L/m

Note: The inner diameter of the minimum measurable pipe section must be greater than or equal to 12mm

■ DISPLAY



Enter the main menu/confirm the current input and options

Scroll down/Next option/Next number

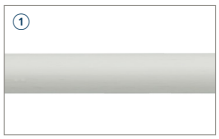
Page up/Previous option/Previous number

Go back to the previous menu/delete the previous input data

Used to switch between the six categories of menus.

Note: In normal conditions, pressing [Enter] will grant access to parameter setting; If you can't access parameters after pressing [Enter], it is possible that the system protection function is enabled. Please enter menu M54 and input the password.

■ Clean the tube

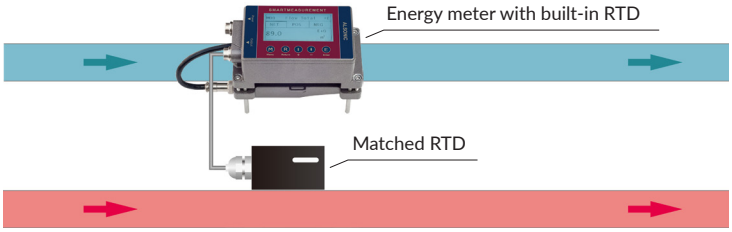


Make sure there is no dirt, paint, or other stains on the surface.

■ Install the flow sensor

Install the bracket on the tube, then install flow sensor on the bracket.

■ Ultrasonic Energy meter



Please contact your **SmartMeasurement** application engineer
You also need to provide the following information:

TYPE OF FLUID	Please provide the name of your fluid, including operating density and viscosity
FULL-SCALE FLOW RATE	Please provide the max and min flow rate, normal flow rate also
LINE SIZE	Please provide the line size
PRESSURE & TEMPERATURE	We will calibrate your flow meter as close to your operating conditions as possible

ALSONIC-MN SERIES

EXAMPLE: ALSONIC-MN

ALSONIC	**	**	**	**	DESCRIPTION
Flow meter -Ultrasonic clamp-on MN type, display, DC power	MN				**Flowmeter type**
Energy meter - -Ultrasonic clamp-on MN type, one built-in RTD, display, DC power	EG MN				
Standard - ½"~1½" (DN15 to DN40), up to 50°C		N			**Transducers**
Special transducer		**			
Standard 4-20mA and RS485			NN		**Output**
Other output			**		
None				NN	**Output options**
OCT (Frequency)				OT	
1 Relay				OR	
Standard ±2% RD meter with 2m signal cable					NN **Options**
±1% RD meter with multiple calibrations					HA
Matched RTD for energy meter with 9m cable					RTD
Thickness gauge					TT
Other options					**

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