

EU-108 Separated Fixed Ultrasonic Flowmeter

EU-108 Ultrasonic Flow Meter is a fixed mounted flow meter, the flowmeter is separated with the transducer. Their electronic enclosures are rated as IP65 (NEMA 4X), so this products could be installed for both indoor and outdoor, then there will be no limited for the installed place.

To meet different require from customer, we design 3 type: **EU-108W** Wall-Mount Fixed Ultrasonic Flowmeter, **EU-108E** Explosion-Proof Fixed Ultrasonic Flowmeter, **EU-108P** Panel-Mount Ultrasonic Flowmeter.

The ultrasonic flow meter works with Ultrasonic Technology and Measures by Principle of time difference. There is a pair of ultrasonic vibrator and receiver in the exterior of pipe emitting in two directions and both face to face. The light vibrator will emit ultrasonic signals down stream and reversed stream. Measuring the time difference of the two directions transmission, you will get the flow rate of the fluid; then input the diameter of pipe, you will get the flow.

Linearity	0.42%
Repeatability	0.17%
Accuracy	Normally $\pm 0.8\%$ of reading at rates $> 0.2\text{mps}$
Response Time	0-999 seconds, user-configurable
Pipe Size	1/2" ~ 240" (DN15mm - DN6,000mm)*
Pipe Material	All metals, most plastics, lined pipes
Units	English (U.S.) or metric
Liquid Types	Virtually all liquids and liquids with minor solids ($< 10,000\text{ppm}$). Full pipes
Digital Interface	Relay/OCT/RS-485/4~20mA/ 0~20mA output.
Power Supply	220V AC / 24VDC / 85~264VAC



EU-108W



EU-108E



EU-108P

Clamp-On Transducer

A pair of clamp-on transducer to measure the flow from outside of a pipe, there is no pressure drop, no moving parts, no leaks and no contamination. The installation is very simple and no special skills or tools are required.



Technical parameters	S1-type	M1-type	L1-type	S1H-type	M1H-type
Pipe size(mm)	DN15-100	DN50-700	DN300-6000	DN15-100	DN50-700
Pipe size(inch)	(1/2" ~4")	(2" ~28")	(1/2" ~4")	(1/2" ~4")	(2" ~28")
Material	ABS			Special high-temperature materials	
Frequency	1MHZ				
Installation method	V(N、W)	V、Z	Z	V(N、W)	V、Z
calibration	Calibrate with the main unit				
magnetism	Magnetic		No magnetic		
Application of temperature	32°F ~158°F (0°C ~70°C)			32°F ~320°F (0°C ~160°C)	
Protection class	IP68(can work in water, and water depth≤3 meter)				
Dimension(mm)	45×30×30	60×45×45	80×70×55	90×85×24	90×82×29
weight (g)	75	250	650	94	150
Liquid types	Water,sea water.waste water,chemical liquids,oil,crude oil,alcohol,beer,etc.				
Suspension concentration	≤20000ppm,may contain very small amount of air bubbles.				
Pipe material	All metals,most plastics,fiber glass,etc,				
Dedicated shielded transducer cable	Shielded transducer cable,can be extended to 500 meter×2, contact the manufacturer for longer cable requirement.				

Flow-Cell Transducer

This Transducer is a flow-cell (or spool-piece), where a pair of ultrasonic sensors have already been built in. The flow cell transducer is accurately calibrated in the factory. When it is put in line with the testing pipe, the accuracy normally does not change.with high accuracy, good stability,easy to use,etc.

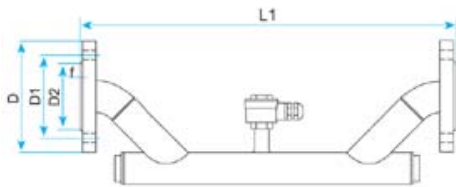


PI-type transducer

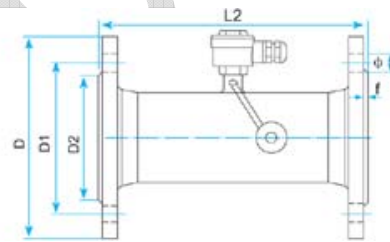


Standard-pipe transducer

Technical parameters	PI-type transducer	Standard-pipe transducer
Pipe size(mm)	DN15-DN40	DN50-DN1000
material	stainless steel	carbon steel(stainless steel is optional)
Frequency	1MHZ	
Connection:	flange type	
Application of temperature	-40°C-160°C	
calibration	Calibrate with the main unit	
Protection class	IP68(can work in water, and water depth≤3 meter)	
Dimension	refer to the following table	
Nominal pressure	refer to the following table	
Liquid types	Water,sea water.waste water,chemical liquids,oil,crude oil,alcohol,beer,etc.	
Suspension concentration	≤20000ppm,may contain very small amount of air bubbles.	
Dedicated shielded transducer cable	shielded transducer cable,can be extended to 500 meter×2,contact the manufacturer for longer cable requirement.	



PI –type dimension



Standard-pipe dimension

Nominal diameter(mm)	Rated pressure(mm)	PI –type dimension	Standard-pipe dimension	Flange dimension(mm)					
		L1	L2	D	D1	D2	f	N-Φ	Flange thickness
15	2.5	320		95	65	46	2	14×4	14
20		360		105	75	56	2	14×4	16
25		390		115	85	65	3	14×4	16
32		450		140	100	76	3	18×4	18
40		500		150	110	84	3	18×4	18
50	1.6		200	165	125	99	3	18×4	20
65			200	185	145	118	3	18×4	20
80			225	200	160	132	3	18×8	20
100			250	220	180	156	3	18×8	22
125			250	250	210	184	3	18×8	22
150			300	285	240	211	3	22×8	24
200			350	340	295	266	3	22×12	24
250			450	405	355	319	3	26×12	26
300			500	460	410	370	4	26×12	28
350			550	520	470	429	4	26×12	30

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400			600	580	525	480	4	26×16	32
450			700	640	585	548	4	30×20	34
500	1.0		800	670	620	585	4	25×20	32
600			1000	780	725	685	5	30×20	36
700	0.6		1100	860	810	775	5	24×25	32
800			1200	975	920	880	5	24×30	32
900			1300	1075	1020	980	5	24×30	34
1000			1400	1175	1120	1080	5	28×30	36

Insertion Wetted Transducer

A pair of insertion-type transducers are inserted into the pipe wall to interrogate the flow in the pipe. Since the transducers do not extrude into the flow, they do not generate any disturbance or cause any pressure drop. There is no moving parts to wear out.

If the pipe material is carbon steel or stainless steel can be installed directly welding, but if the pipe material is cast iron, FRP, PVC or cement please contact with the manufacturer to order the dedicated pipe hoop. To prevent leak water please give the exact outside diameter or perimeter to the manufacturer.



B-type
(direct insertion)



C-type
(oblique insertion)



B long-type
(cement insertion)

Technical parameters:	B-type insertion wetted transducer (direct insertion)	C-type insertion wetted transducer (oblique insertion)	B long-type cement insertion wetted transducer
Pipe size	More than DN80mm		
material	Ball valve and transducer pole's material: stainless steel, Valve base's material is carbon steel (stainless steel is optional)		
Frequency	1MHZ		
Pipe material	All metals, most plastics, fiber glass, etc,		
Installation method	Z method		
Application of temperature	-40°C -160°C		
bore Size	φ19mm (please use the manufacture's dedicated tools to drill, it can install with pressure.)		
Pressure class	1.6MPa (less than 0.8MPa when installing)		
Protection class	IP68 (can work in water, and water depth ≤ 3 meter)		
Mounting Space	more than 550mm between the well wall and the pipe wall	more than 360mm between the well wall and the pipe wall	more than 700mm between the well wall and the pipe wall



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Length	186mm	228mm	330mm
Liquid types	Water,sea water.waste water,chemical liquids,oil,crude oil,alcohol,beer,etc.		
Suspension concentration	≤20000ppm,may contain very small amount of air bubbles.		
Dedicated shielded transducer cable	shielded transducer cable,can be extended to 500meter×2contact the manufacturer for longer cable requirement,but the cable for water meter transducer do not more than 5 meter.		

How to Choose the Type?

EU-108 A B C D E F G H I
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Letter	Parameter	Option
A	Main unit type	W:standard wall-mount type E : Explosion-Proof type P:standard panel type
B	Power	A:AC 85-264VAC D:DC 24VDC
C	transducer	B1 S1 type Clamp-on tranducer for small pipe B2 M1 -type Clamp-on tranducer for middle pipe B3 L1 -type Clamp-on tranducer for large pipe B4: S1H-type Clamp-on high temperature tranducer for small pipe B5: M1H-type Clamp-on high temperature tranducer for middle pipe C1: B-type insertion wetted tranducer C2: Cement insertion wetted tranducer G: Pipe tranducer (less than DN40 use the PI-type tranducer, more than DN50 use the Standard-pipe tranducer)
D	Pipe size	DN(mm)_____
E	Pipe material	0: Carbon steel 1: Stainless steel 2: cast iron 3: GFRP 4:pvc 5: Cement
F	Nominal pressure	_____MPa
G	Signal output	N:None A:4-20mA output(note range) F:OCT output R:Relay output 4:RS485 output(note baud rate、 communication check digit)
H	Signal input	N:None 1:one channel 4-20mA analog input (note range) 2:two channels 4-20mA analog input (note range) 3: three channels 4-20mA analog input (note range)
I	Cable(single cable length)	Meter,(pipe type is four-core cable,others are two-core cable)