

FMU833 Wall mounted ultrasonic flowmeter (Heat Meter)

**MAIN FEATURES**

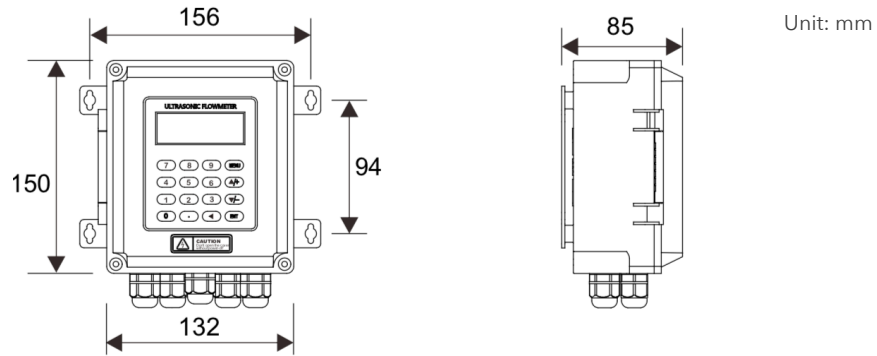
- Both intrusive and non-intrusive measurement are achieved.
- Easy installation process, no maintenance is needed.
- High accuracy within  $\pm 1\%$ .
- Multiple output of 4-20mA, OCT pulse and relay output.
- Achieve heat measurement by connecting 3-wired heat transducers PT100.



**SPECIFICATION**

Items	Performance & Parameter	
Host	Principle	Transit- time ultrasonic flowmeter
	Accuracy	$\pm 1\%$
	Display	2X20 character LCD with backlight, support the language of Chinese, English and Italy
	Signal Output	1 way 4~20mA output, electric resistance 0~ 1K, accuracy 0. 1%(optional) 1 way OCT pulse output(Pulse width 6~1000ms, default is 200ms) 1 way Relay output
	Signal Input	3 way 4~20mA input, accuracy 0. 1%, acquisition signal such as temperature, press and liquid level Connect the temperature transducer Pt100, can finish the heat/energy measurement
	Data Interface	Insulate Rs485 serial interface, upgrade the flowmeter software by computer, support the MODBUS
Special Cable	Twisted-pair cable, generally, the length under 50 meters ; Select the RS485, transmission distance can over 1000m	
Pipe Installation Condition	Pipe Material	Steel, Stainless steel, Cast iron, Copper, Cement pipe, PVC, Aluminum, Glass steel product, liner is allowed
	Pipe Diameter	DN15~6000mm
	Straight Pipe	Transducer installation should be satisfied: upstream10D, downstream 5D, 30D from the pump
Measuring Medium	Medium	water,sea water ,alcohol,Acid and alkali,waste water,beer,all kinds of oil Single liquid can transmit sound wave.
	Temperature	-30~160°C
	Turbidity	No more than 10000ppm and less bubble
	Flowrate	0~ $\pm 10$ m/s,Forward and backward measurement
Work environment	Protection grade	Host:IP67;flow sensor:IP68
	temperature	Host:-20~60°C;flow sensor:-30~ 160°C
	Humidity	Host: 85%RH; Flow sensor:can measure under water, water depth^2m (tansducer sealed glue)
Power Supply	DC8~36V or AC85~264V	
Power Consumption	1.5W	
Dimension	132*150*85mm(host)	

**DIMENSION**



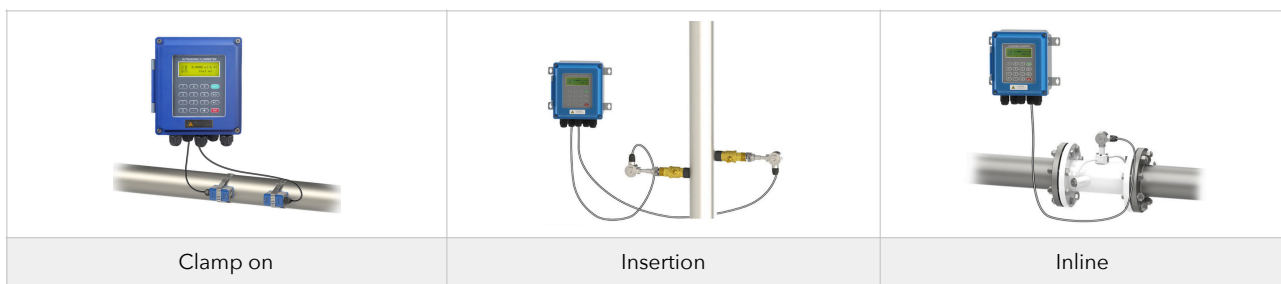
**SENSOR OPTIONS**

Flow sensor	Picture	Model	Measuring range	Temperature
Clamp on		TS-2 (small)	DN25-100	-30 ~ 90°C
		TM-1 (medium)	DN50-700	
		TL-1 (large)	DN300-6000	
High temp. Clamp on		TS-2-HT (small)	DN25-100	-30 ~ 160°C
		TM-1-HT (medium)	DN50-700	
		TL-1-HT (large)	DN300-6000	
Insertion		TC-1 (standard)	DN50-6000	-30 ~ 160°C
		TC-2 (extended)		
Inline		TP-1 (parallel)	DN80-6000	-30 ~ 160°C
		Standard	DN15-1000	

**OPTIONAL PT100 SENSORS FOR HEAT MEASUREMENT**

Temperature sensor	Picture	Model	Measuring range	Temperature	Cut off water
Clamp on		CT-1	DN50-6000	-40 ~ 160°C	No need
Insertion		TCT-1	DN50-6000	-40 ~ 160°C	Need
Insertion under pressure		PCT-1	DN50-6000	-40 ~ 160°C	No need
Insertion small sizes		SCT-1	< DN50	-40 ~ 160°C	Need

**APPLICATION EXAMPLE**



**ORDER CODE**

FMU833	Wall mounted ultrasonic flowmeter						
	<b>CODE</b>	Sensor type					
	<b>A</b>	Standard clamp on sensor					
	<b>B</b>	High temperature clamp on sensor					
	<b>C</b>	Mounting bracket sensor					
	<b>D</b>	High temperature mounting bracket sensor					
	<b>E</b>	Segment sensor type					
	<b>F</b>	Insertion type					
	<b>CODE</b>	Nominal diameter					
	<b>D15</b>	DN15mm					
	<b>D20</b>	DN20mm					
	<b>...</b>	...					
	<b>D6000</b>	DN6000					
	<b>CODE</b>	Voltage					
	<b>D</b>	DC8~36V (DC 24V)					
	<b>A</b>	AC85~264V					
	<b>CODE</b>	Working temperature					
	<b>1</b>	-30 °C -90 °C					
	<b>2</b>	-30 °C -160 °C					
	<b>3</b>	Other customized					
	<b>CODE</b>	Signal output					
	<b>S1</b>	1 channel 4-20mA current output					
	<b>S2</b>	1 way OCT pulse output					
	<b>S3</b>	1 relay output					
	<b>S4</b>	RS485					
	<b>C</b>	Other customization					
	<b>CODE</b>	Other parameters					
	<b>A</b>	Flange range_					
	<b>B</b>	Normal pressure_Kpa					
	<b>C</b>	Protection level_					
	<b>D</b>	Explosion type_					
	<b>E</b>	Signal input_					
	<b>F</b>	Other requirements					
FMU833	A	D15	D	1	S1	BC	Order example