FMU835 Built in printer portable ultrasonic flowmeter

MAIN FEATURES

- Product Name: Handheld Ultrasonic Flowmeter Accuracy Class: Class 1
- Data interface: Isolated RS485 serial interface
- Measuring temperature: -30 ~ 160 ° C Measurable pipe diameter: DN15-6000 Housing material: flame retardant ABS
- Measurable pipe: steel, stainless steel, cast iron, copper, PVC, aluminum, fiberglass, etc.
- Measurable liquids: tap water, sea water, industrial sewage,
- Acid and alkali liquid, alcohol, beer, various oils, etc.

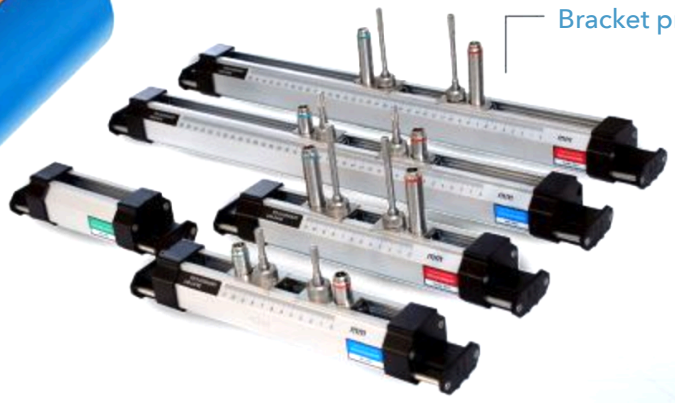
SPECIFICATION

Items	Performance & Parameter	
Convertor	Principle	Transit- time ultrasonic flowmeter
	Accuracy	±1%
	Display	2×20 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%
		1 way OCT pulse output (Pulse width 6~1000ms,the default value is 200ms)
		1 way relay output
	Signal Input	3 way 4-20mA input,accuracy 0.1%,acquire signals like: temperature,press and liquid level
		Achieve to heat maesurement by connecting the temperature transducer PT100
	Data Interface	Insulate RS485 serial interface,upgrade the flowmeter software by computer, support MODBUS
	Data Record	Thermal printer,external SD card (2G of capacity)
Pipe Installation Condition	Pipe Material	Steel, Stainless steel, Cast iron, Copper, Cement pipe, PVC, Aluminum, Glass steel product, liner is allowed
	Pipe Diameter	15~ 6000mm
	Straight Pipe	Transducer installation should be satisfied: upstream10D, downstream 5D, 30D from the pump
Measuring Medium	Type of Liquid	Single liquid can transmit sound wave,such as Water (hot water, chilled water, city water, sea water, waste water, etc.);
	Temperature	-30~160°C
	Turbidity	Less than 10000ppm and less bubble
	Flowrate	0~±10m/s
Working Environment	Temperature	Convertor:-20~60C; Flow Transducer:-30~ 160C
	Humidity	Convertor: 85%RH; Flow Transducer:IP67
Power Supply	8 built-in Ni-MH batteries 1.2V(for over 20 hours of operation).90V-260VAC adapter	
Power Consumption	1.5W	

E-mail: info@cdsentec.com www.cdsentec.com

INTRODUCTION

Outside clamp probe



Bracket probe

Interface

Output signal: 4-20mA(optional)
Pulse signal
Relay signal

Input signal: 3 way 4-20mA

Communication interface: RS485

Thermal printer (24 column characters)

Available to timely and regularly print over 20 pre-set measuring results

Display

Support languages of Chinese, English and Italian

SD card

Convenience for long-term storage of data. Available to do the data processing like tabulation, statistics, data analysis, print reports and make flow curve by using the matching data analysis software.

Carrying case

High-strength carrying case, easy to take, dustproof, waterproof and impact resistance.

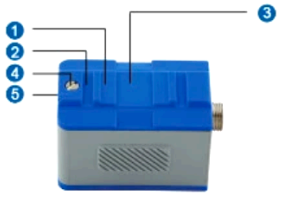
SENSOR OPTIONS

Clamp-on Type	Picture	Model	Accuracy	Ingress Protection	Measuring Pipe Size	Medium Temperature	Dimention	Features
Sstandard		TS-2	±1%	IP68	DN25-DN100mm	-30℃~90℃	45*25*32mm	No need to cut off the pipeline, no pressure drop. Clamp on the surface of the pipeline, simplify the installation process and shorten installation time. Not applicable to cement pipe and glass steel pipe (the ultrasonic can't travel through).
		TM-1	±1%	IP68	DN50-DN700mm	-30℃~90℃	64*39*44mm	
		TL-1	±1%	IP68	DN300-DN6000mm	-30℃~90℃	97*54*53mm	
High Temperature standard		TS-2-HT	±1%	IP68	DN25-DN100mm	-30℃~160℃	45*25*32mm	
		TM-1-HT	±1%	IP68	DN50-DN700mm	-30℃~160℃	64*39*44mm	
		TL-1-HT	±1%	IP68	DN300-DN6000mm	-30℃~160℃	97*54*53mm	
Mounting Bracket		HS	±1%	IP68	DN15-DN100mm	-30℃~90℃	318*59*85mm	
		HM	±1%	IP68	DN50-DN300mm	-30℃~90℃	568*59*85mm	
		EB-1	±1%	IP68	DN300-DN700mm	-30℃~90℃	188*59*49mm	
High Temperature Mounting Bracket		HS-HT	±1%	IP68	DN15-DN100mm	-30℃~160℃	318*59*110mm	
		HM-HT	±1%	IP68	DN50-DN300mm	-30℃~160℃	568*59*110mm	
		EB-1-HT	±1%	IP68	DN300-DN700mm	-30℃~160℃	188*59*49mm	

OPTIONAL PT100 SENSORS FOR HEAT MEASUREMENT

Picture	Specification	Model	Accuracy	Measuring Range	Temperature	Cut off water
	Clamp on PT100	CT-1	±1%	DN50mm-DN6000mm	-40℃-160℃	No
	Insertion Type PT100	TCT-1	±1%	DN50mm-DN6000mm	-40℃-160℃	Yes
	Insertion Type PT100 Installation with pressure	PCT-1	±1%	DN50mm-DN6000mm	-40℃-160℃	NO
	Insertion Type PT100 For small pipe diameter	SCT-1	±1%	DN15mm-DN50mm	-40℃-160℃	Yes

PARTS DESCRIPTION

Top View	Bottom View	Side View	Wiring Diagram
			
① Fastening groove of puller strap ② Fastening groove of wirerope ③ Fastening groove of steel belt ④ Fastening screw ⑤ Indicating arrow of signal direction	⑥ Acoustic wedge ⑦ Powerfuf magnet ⑧ Antiskid groove ⑨ Signs of upstream and downstream ⑩ Cable interface	⑪ Starting point of installation distance ⑫ Product information label	⑬ Positive terminal ⑭ Negative terminal ⑮ Earth terminal ⑯ Junction box

CLAMP ON SENSOR PAKAGE

① Host (built-in printer) ② Data cable ③ Printer paper

④ Signal wire ⑤ Couplant ⑥ Power Adapter

⑦ Sensor (clamping) ⑧ Tape ⑨ Steel chain

BRACKET SENSOR PACKAGE

① Host (built-in printer) ② Signal wire ③ Fastening with

④ Sensor (scaffolding) ⑤ Printer paper ⑥ Power Adapter

⑦ Couplant ⑧ Tape

ORDER CODE

FMU835	Built in printer portable ultrasonic flowmeter						
	CODE	Sensor type					
	A	Standard clamp on sensor					
	B	High temperature clamp on sensor					
	C	Mounting bracket sensor					
	D	High temperature mounting bracket sensor					
		CODE	Nominal diameter				
		D15	DN15mm				
		D20	DN20mm				
		…	…				
		D6000	DN6000				
			CODE	Voltage			
			D	built-in Ni-MH batteries 1.2V(for over 20 hours of operation)			
			A	90V-260VAC adapter			
				CODE	Working temperature		
				1	-30 °C -90 °C		
				2	-30 °C -160 °C		
				3	Other customized		
					CODE	Signal output	
					S1	1 channel 4-20mA current output	
					S2	1 way OCT pulse output	
					S3	1 relay output	
					S4	RS485	
					C	Other customization	
						CODE	Other parameters
						A	Flow range_
						B	Normal pressure_Kpa
						C	Protection level_
						D	Explosion type_
						E	Signal input_
						F	Other requirements
FMU835	A	D15	D	1	S1	BC	Order example