TECHKNAVE

UF-2021B SERIES

Techknave

WALL MOUNTE

ULTRASONIC FLOWMETER

Water & Dust Resistant

Clamp on

Insertion

Pipe

| Features |

- Measurement accuracy 0.5 %
- Convertor protection class IP67, transducer protection class IP68
- Wide range, pipe size from DN15mm to DN6000mm
- Three types installation method: wall mounted, DIN-rail mounted, explosion-proof box mounted
- Connect the temperature transducer can finish the heat/energy measurement

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| Introduction |

UF-2021B flowmeter can be virtually applied to a wide range of in long-term online measurement. Convertor protection class IP67, transducer protection class IP68. A variety of liquid applications can be accommodated: ultra-pure liquids, portable water, chemicals, raw sewage, reclaimed water, cooling water, river water, plant effluent etc.

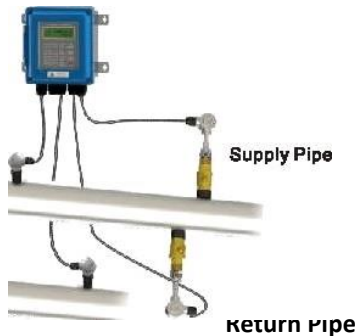## | Measuring Diagram |

Flow Measurement	Heat Measurement	Features

Clamp On

Supply Pipe

Return Pipe

- No need to cut off water, no pressure loss.
- Connect clamp on temperature transduser, can Finish the heat/energy measurement.
- Easy for Installation.

Insertion

Supply Pipe

Return Pipe

- No need to cut off water, no pressure loss.
- Stable and reliable for long term operation.
- Connect PT100 temperature transducer, can finish the heat/energy measurement.

Pipe

Supply Pipe

Return Pipe

- Need to cut off pipe.
- With high accuracy and Stability.
- Connect PT100 temperature transducer, can finish the heat/energy measurement.

| Optional Transducers |

Please choose the suitable transducer, according to different liquid pipe condition and installation method. (Please refer to the measuring diagram).

Types	Picture	Spec.	Model	Measurement Range	Temperature	Dimension	
Clamp On		Small Size	TS-2	DN25~I100	-30~90⁰ C	45x25x32mm	
		Medium Size	TM-1	DN50~DhI700	-30~90⁰ C	64x39x44mm	
		Large Size	TL-1	DNS00~DN6000	-30~90⁰ C	97x54x53mm	
High Temp Clamp On		Small Size	TS-2-HT	DN25~DN1DO	-30~160⁰ C	45x25x32mm	
		Medium Size	TM-1-HT	DN00~DN700	-30~160⁰ C	64x39x44mm	
		Large Size	TL-1-HT	DN300~DN6000	-30~160⁰ C	97x54x53mm	
Insertion		Standard	TC-1	DN80~DN6000	-30~160⁰ C	190x80x55mm	
		Lengthen	TC-2	DhI80~DN8000	-30~160⁰ C	335x80x55mm	
Pipe		π Type	G1	DN15~DN32	-30~160⁰ C	SUS304 thread connection	Please refer to detailed pipe dimensions
		Standard	G2	DN40~DN1000	-30~160⁰ C	Carbon steel thread connection	

Temperature columns use: -30~90⁰ C written as $-30\sim90^0$ C and -30~160⁰ C as $-30\sim160^0$ C.

| Optional Temperature Transducers |

Connect the temperature transducer can finish the heat/energy measurement

Picture	Specification	Model	Meas. Range	Temperature	Cut of water	Accuracy
	Clamp on temperature Transducer Pt100	CT-1	>DN50	-40~160⁰ C	No	
	Insertion temperature Transducer Pt100	TCT-1	>DN50	-40~160⁰ C	Yes	100^0 C ± 0.8^0 C
	Insertion Pt100 Installation with pressure	PCT-1	>DN50	-40~160⁰ C	No	
	Insertion Pt100 small size pipe diameter	SCT-1	<DN50	-40~160⁰ C	Yes	

| Optional SD Card memory |

Convenience for long - term and large data storage. Available to do the data processing like tabulation, statistical, data analysis, printing reports and production flow curve by using data analysis software.
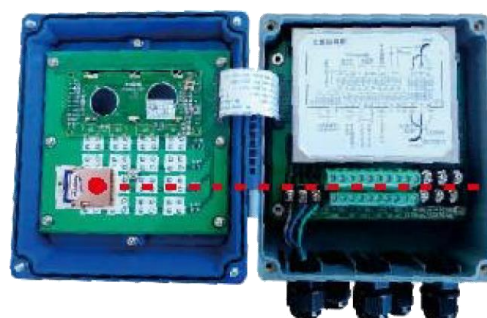
◄◄ SD card optional

| Data Sheet |

Items		Performance & Parameter
Converter	Principle	Transit—time ultrasonic flowmeter
	Accuracy	±0.5%
	Display	2 X 20-character LCD with backlight, support the language of English, Italy, Turkish
	Signal output	1 way 4-20mA output, electric resistance 0-1K, accuracy 0. 1%
		1 OCT pulse output (Pulse width - 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	25~6000mm
	Straight Pipe	Transducer installation should be satisfied: upstream10D, downstream SD, 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.); sewage with small particle content ; Oil (crude oil, lubricating oil, diesel oil, fuel oil, etc.); chemicals (alcohol, etc.); Plant effluent: Beverage ;
	Temperature	-30 – 160^0 C
	Turbidity	No more than 10000ppm and less bubble
	Flowrate	0 ~ ±7 m/s
Working Environment	Temperature	Convertor: -20~80^{0}C : Flow Transducer: -30~180^0 C
	Humidity	Convertor: 85%RH: Flow transducer r : can measure under water , water depth ≤ 2m
Power Supply		Dc 8-36V or Ac85-264V (optional)
Power Consumption		1. 5W
Dimension		132*15O*85 mm (convertor)

| Data Login Features |

- Can store Data upto 1095 Records (i.e., for 3 Years (365 * 3 = 1095) with 1 Data / Day.
- Can store Data upto 1095 Records (i.e., for 91 Months (1095 / 12 = 91) with 1 Data / Month.