

# DUAL-CHANNEL ULTRASONIC FLOWMETER

INSERTION





#### INSERTION DUAL-CHANNEL ULTRASONIC FLOWMETER



#### Features:

- Hot-tapped installation, no pipe line flow interrupted.
- No moving parts, no pressure drop, no maintenance.
- The accuracy is + 0.5o/o for dual channels insertion ultrasonic flowmeter.
- A wide range of flow measurement, high flow rate can reach 15m/s.
- High-temperature transducer is suitable to liquids of -35° ~ 150°
- Wide bi-directional flow range of 0.01 to 15m/s, and wide range of pipe sizes from DN65-6000.
- Data logger function.
- The heat measurement function by configuring with paired temperature sensors.
- · With the ability of dynamic zero.



# **Specifications:**

## Transmitter:

Measurement principle	Ultrasonic transit-time difference correlation principle
Flow velosity range	0.01 to 15m/s, bi-directional
Resolution	0.1mm/s
Repeatability	0.15% of reading
	±0.5%R
Accuracy	
Response time	0.5s
Sensitivity	0.001m/s
Damping of displayed value	0-99s (selectable by user)
Liquid Types Supported	Both clean and somewhat dirty liquids with turbidity <10000 ppm
Power Supply	AC: 85-265V DC: 12-24V
Enclosure type	Wall-mounted
Degree of protection	IP66 according to EN60529
Operating temperature	-10°C to + 60°C
Housing material	Fiberglass
Display	3.5" colour LCD display, 16 keys
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft <sup>3</sup> , barrels, lbs, litres, m <sup>3</sup> , kg
Thermal energy	unit GJ, KWh can be optional
Communication	4-20mA, OCT, Relay, RS485 (Modbus), Datalogger, NB-IoT, GPRS
Size	244(h)*196(w)*114(d)mm
Weight	2.4kg

#### Transducer:

Transducer Type	Insertion
Degree of protection	IP65, IP67 or IP68 according to EN60529
Suited Liquid Temperature	-35°C~150°C
Pipe diameter range	S for 65-6000mm
Transducer Size	Ф58*199mm
Material of transducer	SUS304 + Peek
Cable Length	Std: 10m



## **Configuration Code:**

Dual-C	Chan	nel Insertion Type Ultrasonic Flowmeter		
Power Supply				
Α	85-	265VAC		
D	24\	'DC		
S	Sol	ar supply		
Output Selection 1				
	Ν	N/A		
	1	4-20mA (accuracy 0.1%)		
	2	OCT		
	3	Relay Output (Totalizer or Alarm)		
	4	RS232 Output		
	5	RS485 Output (ModBus-RTU Protocol)		
	6	Data storage function		
	7	GPRS		
Output Selection 2				
Same as above				
Output Selection 3				
		Transducer Temperature		
		S DN65 - 6000 -35 ~ 150°C		
		2S DN65 - 6000 -35 ~ 150°C, two pairs of sensors		
		Temperature Input Sensor		
		N None		
T Clamp-on PT1000 (DN20 - 1000) (0~200°C)				
		Pipeline Diameter		
		DNX e.g. DN20 - 20mm, DN5000 - 5000mm		
Cable length				
		10m 10m (standard 10m)		
		Xm Common cable Max 300m (standard 10m)		
		XmH High temp. cable Max 300m		

TF1100-DI - A - 1 - 2 - 3 /LTDI - 2S -N - DN100 - 10m (example configuration)

#### Description:

Power supply: 85-265VAC; output:4-20mA; OCT, Rely output

transducer type: 2S for DN65-6000 -35  $\sim$  150°C; without PT1000 temperature sensors; DN100 application; 10m transducer cables.





Distributor of Subsurface Detection System and Utility Instruments