

# Lanry

Professional Manufacturer of Flowmeters



# BlueFlow



- TF1100-DC Clamp-on Dual-channel Ultrasonic Flowmeter
- TF1100-DI Insertion Type Dual-channel Ultrasonic Flowmeter



**BluePoint**<sup>®</sup>  
TECHNOLOGIES

SPECIALIZED IN FLOWMETER MORE THAN 20 YEARS

### General:

Dual-channel Wall-mounted Transit Time Ultrasonic Flowmeter works on the transit-time method. It includes TF1100-DC clamp on type and TF1100-DI insertion type. They are used for liquid flow measurement in fully filled pipe. . Two pairs of transducers are sufficient to cover the most common pipe diameter ranges. In addition, its optional thermal energy measurement capability makes it possible to carry out a complete analysis of thermal energy usage in any facility.

This flexible and easy to use flow meter is the ideal tool for the support of service and maintenance activities. It can also be used for the control or even for the temporary replacement of permanently installed meters.



TF1100-DC Clamp on type



TF1100-DI Insertion type



### Features:

- Dual channels ultrasonic transit-time sensor for high accuracy 0.5%.
- Easy to install, cost effective, and require no pipe cutting or processing interrupt.
- Wide liquid temperature range:  $-35^{\circ}\text{C} \sim 200^{\circ}\text{C}$ .
- Data logger function.
- Thermal energy measurement capability can be optional.
- For commonly used pipe materials and diameters from 20mm to 5m.
- Wide bi-directional flow range of 0.01 m/s to 15m/s.

## Specifications:

### Transmitter:

Measurement principle	Ultrasonic transit-time difference correlation principle
Flow velocity range	0.01 to 15 m/s, bi-directional
Resolution	0.1mm/s
Repeatability	0.15 % of reading
Accuracy	± 0.5 %
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: 85-265VAC 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	4.3" color LCD 5 lines display, 16 keys
Units	User Configured (English and Metric)
Rate	Rate and Velocity Display
Totalized	gallons, ft <sup>3</sup> , barrels, lbs, liters, m <sup>3</sup> ,kg
Thermal energy	Unit GJ, KWh can be optional
Communication	4-20mA, OCT, Relay, RS485(Modbus), data logger, GPRS/GSM, NB-IOT
Security	Keypad lockout, system lockout
Size	244*196*114mm
Weight	2.4kg

### Transducer:

Degree of protection	Standard IP65;IP67,IP68 can be optional
Suited liquid temperature	Clamp-on : -35°C~200°C ; Insertion : -35°C~150°C
Pipe diameter range	Clamp-on B : 20mm-50mm ; Clamp-on A : 40mm-5000mm Insertion : 65mm-5000mm
Transducer size	Clamp-on A : 46(h)*31(w)*28(d)mm ; Clamp-on B : 40(h)*24(w)*22(d)mm Insertion : φ58*199mm
Material of transducer	Aluminum + Peek ( Clamp-on ) ; SUS304 + Peek ( Insertion)
Cable length	Std:10m
Temperature sensor	PT1000 Clamp-on or Insertion type

## Configuration Code:

<b>TF1100-XX</b>	<b>Dual-Channel Transit Time Ultrasonic Flow Meter</b>
DC	Clamp-on type
DI	Insertion type
<b>Power Supply</b>	
A	85-265VAC
D	24VDC
S	Solar supply
<b>Output Selection 1</b>	
N	N/A
1	4-20mA
2	OCT
3	Relay Output (Totalizer or Alarm)
4	RS485 Output (ModBus-RTU Protocol)
5	Data storage function
6	GPRS/GSM
7	NB-IOT
<b>Output Selection 2</b>	
Same as above	
<b>Output Selection 3</b>	
<b>Transducer Type</b>	
Clamp on type	
B	DN20-50 -35 ~ 200°C
A	DN40-5000 -35 ~ 200°C
2B	DN20-50 -35 ~ 200°C two pairs sensors
2A	DN40-5000 -35 ~ 200°C two pairs sensors
Insertion type	
S	DN65-5000 -35°C~150°C
2S	DN65-5000 -35°C~150°C two pairs sensors
<b>Temperature Input Sensor</b>	
N	None
T	PT1000 Clamp-on
O	PT1000 Insertion
<b>Pipeline Diameter</b>	
DNX	e.g. DN20-20mm ; DN5000-5000mm
<b>Cable Length</b>	
10m	10m (standard 10m)
Xm	Common cable Max 300m
XmH	High temp. cable Max 300m

TF1100-DC —A —1—2—3 / LTD —2B —N —DN100 —10m (example configuration)

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