

pFlow



# Ultrasonic Flowmeter

## D118 (HD)

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# ABOUT D118

## FEATURES AND CASES



### Product Introduction

This ultrasonic flowmeter is a general-purpose time-difference ultrasonic liquid flowmeter designed with ARM chips and low-voltage wide-pulse transmission technology. It is suitable for continuous measurement of homogeneous liquids without high-concentration suspended particles or gases in industrial environments.

### Product Features

Compared with conventional flowmeters or other ultrasonic flowmeters, this product not only has the significant advantages of high accuracy, high reliability, high performance, and low price but also has the following highlights:

- ◆ Adopts large-scale integrated circuit design with a small number of hardware components.
- ◆ The software design is fully window-based.
- ◆ Daily, monthly and yearly totalized flow: Totalized flow for the last 64 days and months as well as for the last 5 years are may be viewed.
- ◆ The instrument is equipped with a TF card as standard, which can store flow data for at least 1000 days, and the minimum data storage interval can be set to 1 second.
- ◆ Built-in seven-digit positive, negative, and net flow totalizers with multiplication factors work in parallel, and a built-in batch (quantitative) controller, which can easily realize quantitative control.

### Building



### Agriculture



### Aquaculture



### HVAC



# ABOUT D118 PRODUCT BUNDLE



**Transmitter**



①



②



③



④



⑤



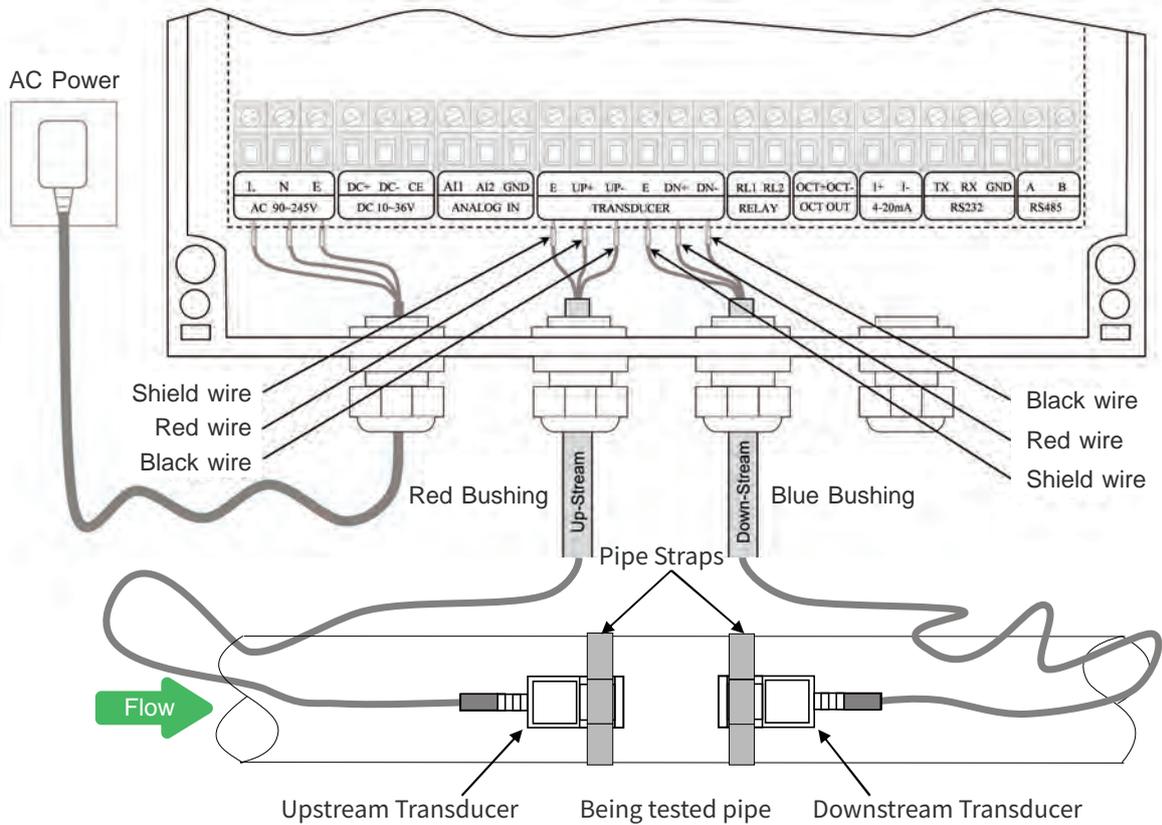
⑥

- ① Pipe Straps
- ② Transducers
- ③ TF Card & Card Reader
- ④ Wall Mounting Screw Components
- ⑤ Coupling Compound
- ⑥ Certified 3-point Factory Calibration

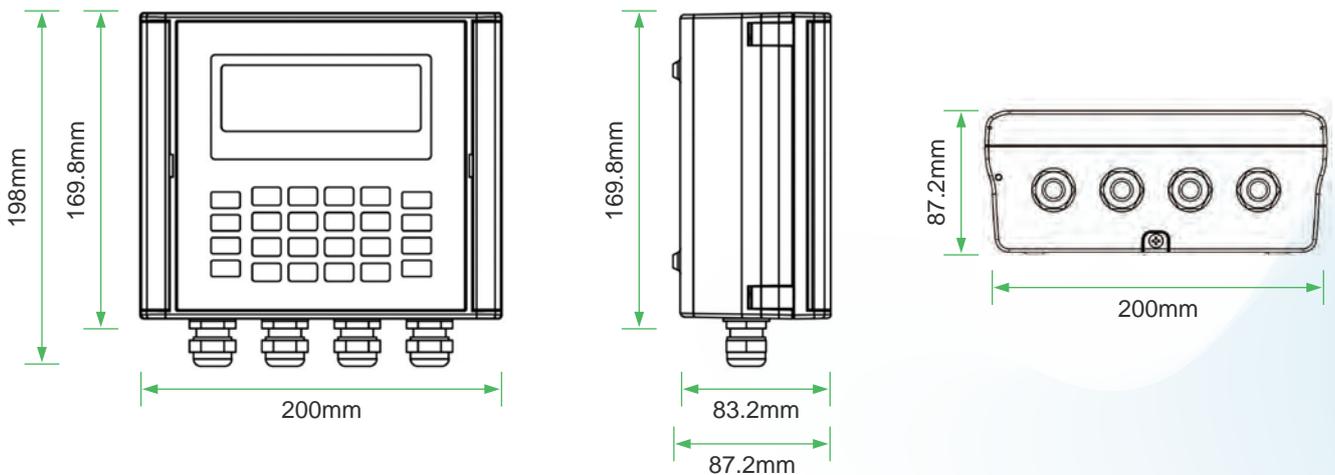
The D118 Ultrasonic Flowmeter combines advanced transit-time ultrasonic technology with a high-performance ARM chip to deliver exceptional accuracy and reliability for liquid flow measurement across water and industrial applications. Its flexible architecture supports both clamp-on and insertion sensors, accommodating pipe sizes from 25mm to 5000mm for non-intrusive installation. Housed in a rugged IP65/IP68-rated enclosure, the device ensures durable performance in harsh environments. Comprehensive output options—including 4-20mA, relay, and MODBUS communication—enable seamless system integration, while integrated data logging and batch control functions provide intelligent process monitoring and efficient management.

# ABOUT D118 INTERFACE AND SIZE

## WIRING DIAGRAM

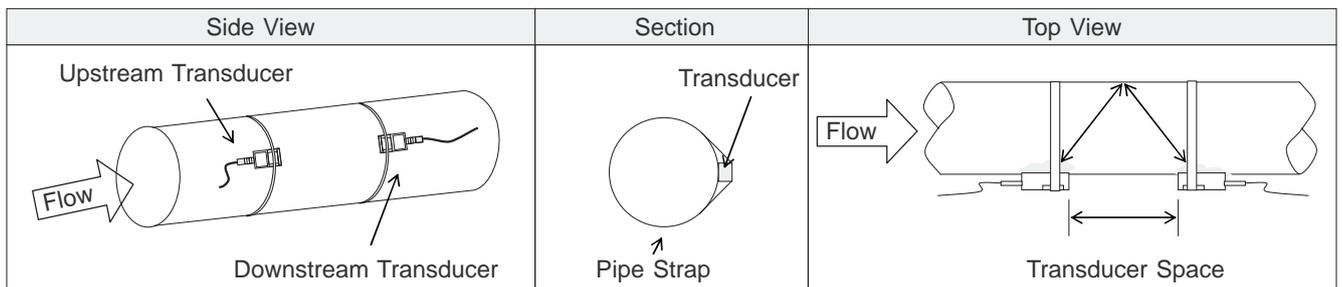


## PRODUCT DIMENSIONS

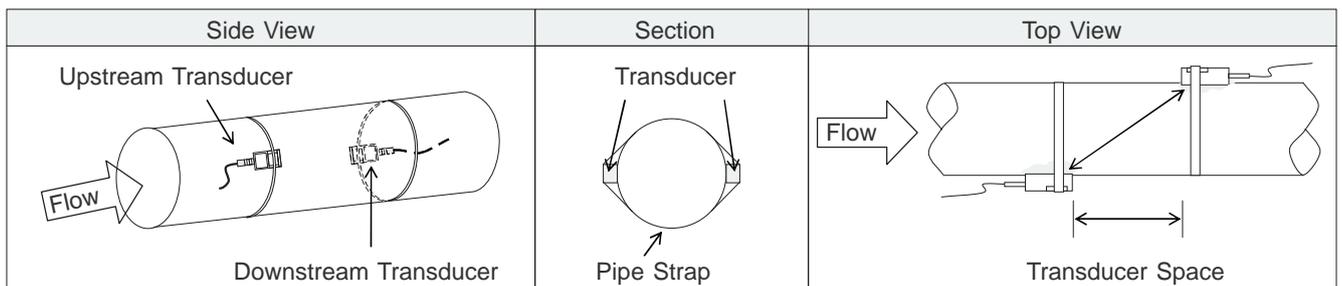


# ABOUT D118 TRANSDUCER INSTALLATION METHODS

## V METHOD MEASURING PIPE SIZE: 25MM-300MM



## Z METHOD MEASURING PIPE SIZE: 300MM-5000MM



# ABOUT D118 INSTALLATION SITE SELECTION

When selecting a measurement site, it is important to select an area where the fluid flow profile is fully developed to guarantee a highly accurate measurement. Use the following guidelines to select a proper installation site:

Choose a section of pipe that is always full of liquid, such as a vertical pipe with flow in the upward direction or a full horizontal pipe.

Ensure enough straight pipe length at least equal to the figure shown below for the upstream and downstream transducer installation.

Ensure that the pipe surface temperature at the measuring point is within the transducer temperature limits.

Consider the inside condition of the pipe carefully. If possible, select a section of pipe where the inside is free of excessive corrosion or scaling.

Name	Straight length of Upstream piping	Straight length of Downstream piping
90° bend		
Tee		
Diffuser		
Reducer		
Value		
Pump		

# ABOUT D118

## ORDERING INFORMATION

### MODEL

### DESCRIPTION

D118	<p>Digital Correlation Transit Time Flowmeter</p> <p>Installation Method: Wall mount</p> <p>16 GB TF card supports logging for over 1000 days with an adjustable 1-3600s interval</p> <p>Flow Range: <math>\pm 0.01\text{m/s} \sim \pm 12 \text{ ms}</math> ( <math>\pm 0.03 \text{ ft/s} \sim \pm 40 \text{ ft/s}</math> )</p> <p>Accuracy: 0.5%</p> <p>Repeatability: 0.1%</p> <p>Pipe Size Range: 1" ~ 200" ( 25mm ~ 5000mm )</p> <p>Keyboard: 24-key touch keyboard</p> <p>Display: 3.71-inch TFT color screen</p> <p>Power Supply: 90 ~ 245VAC ( 48 ~ 63Hz ) or 10 ~ 36VDC</p> <p>Transmitter Enclosure: IP65, die-cast aluminum chassis</p> <p>Output: 4~20mA, OCT pulse output, relay output</p> <p>Communication: RS485, available to MODBUS protocol</p>
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### CODE

### OUTPUT

1	4 ~ 20mA, OCT pulse output, relay output, RS-232/RS-485
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### CODE

### TRANSMITTER ENCLOSURE AREA CLASSIFICATION

1	IP65, die-cast aluminum machined enclosure
2	Explosion-proof enclosure, Ex dia II BT4

### CODE

### TYPE OF TRANSDUCERS

C011	Clamp on transducer, Operating temperature: $-40^{\circ}\text{F} \sim +176^{\circ}\text{F}$ ( $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$ )
CH020	High temperature Clamp on transducer: $-40^{\circ}\text{F} \sim +302^{\circ}\text{F}$ ( $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$ )
W110	Insertion transducer, Operating temperature: $32^{\circ}\text{F} \sim +176^{\circ}\text{F}$ ( $0^{\circ}\text{C} \sim +80^{\circ}\text{C}$ )
WH101	High temperature Insertion transducer: $-40^{\circ}\text{F} \sim +302^{\circ}\text{F}$ ( $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$ )
C110	Clamp on transducer, Operating temperature: $-40^{\circ}\text{F} \sim +176^{\circ}\text{F}$ ( $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$ )

### CODE

### TRANSDUCER CABLE LENGTH

030	Standard 30ft ( 9m )
100	100ft ( 30m )
xxx	Maximum lengthen to 305m (1000ft ), per 5m is a lengthen unit

Standard Model: D118 - 1 - 1 - C011 - 030

Description: D118 transmitter with C011 clamp on transducers, RS485/4-20mA/OCT Pulse/Relay outputs, Standard 30 ft ( 9m ).

## **Gentos Measurement & Control Co., Ltd.**

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