



pFlow

Wall Mount Ultrasonic Flowmeter D118i

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ABOUT D118i

FEATURES AND CASES



The Model D118i Ultrasonic Flowmeter is a state-of-the-art universal transit-time flowmeter designed using ARM COMA technology and low-voltage broadband pulse transmission.

While principally designed for clean liquid applications, the instrument is tolerant of liquids with the small amounts of air bubbles or suspended solids found in most industrial environments.

Comparing With other traditional flowmeter or ultrasonic flowmeter, it has distinctive features such as high precision, high reliability, high capability and low cost, the Flowmeter features other advantages:

4.7" graphic LCD CNC machined enclosure with hardened aluminium Unique technology for dynamic flow, PICOFLY With the TF Card, 512 files can b



ABOUT D118i SPECIFICATION

PERFORMANCE SPECIFICATIONS

| | |
|---------------|---------------------------------------------------------------------------------------------|
| Flow range | $\pm 0.03\text{ft/s} \sim \pm 40\text{ft/s}$ ($\pm 0.01\text{m/s} \sim \pm 12\text{m/s}$) |
| Accuracy | $\pm 0.5\%$ of measured value (for $\pm 1.5\text{ft/s} \sim \pm 40\text{ft/s}$) |
| Repeatability | 0.1% of measured value |
| Pipe size | 1" to 200" (25mm to 5000mm) |

FUNCTION SPECIFICATIONS

| | |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Outputs | Analog output: 4~20mA, maximum 750 Ω . Pulse output: 0~9999Hz, OCT output, (adjustable) Realy output: the highest 1Hz, (1A@125VAC or 2A@30VDC) |
| Communication | RS232&RS485 Communication Interface, Support Modbus Protocol |
| TF Card | Max record:4GB, working 1200 days (sample frequency 5 second) Storage time interval:1~13000s |
| Power supply | 90 to 250 VAC, 48 to 63 Hz. Or 10 to 36VDC |
| Keypad | 24 light tactile keys |
| Display | 4.7 inch TFT color screen |
| Temperature | Transmitter:14°F~140°F (-10°C~60°C) Transducer:-40°F~176°F (-40°C~80°C,standard) |
| Humidity | Up to 99% RH,non-condensing |

PHYSICAL SPECIFICATIONS

| | |
|-------------|-----------------------------------------------------------------------------------------------------------------|
| Transmitter | Die-cast aluminum, IP65, CNC machined |
| Transducer | Encapsulated design, protection grade IP68 The standard length of cable: 9m Material: 304 stainless steel |
| Weight | Transmitter: 1kg |



Transmitter



Transducer



Pipe strips



Coupling compound

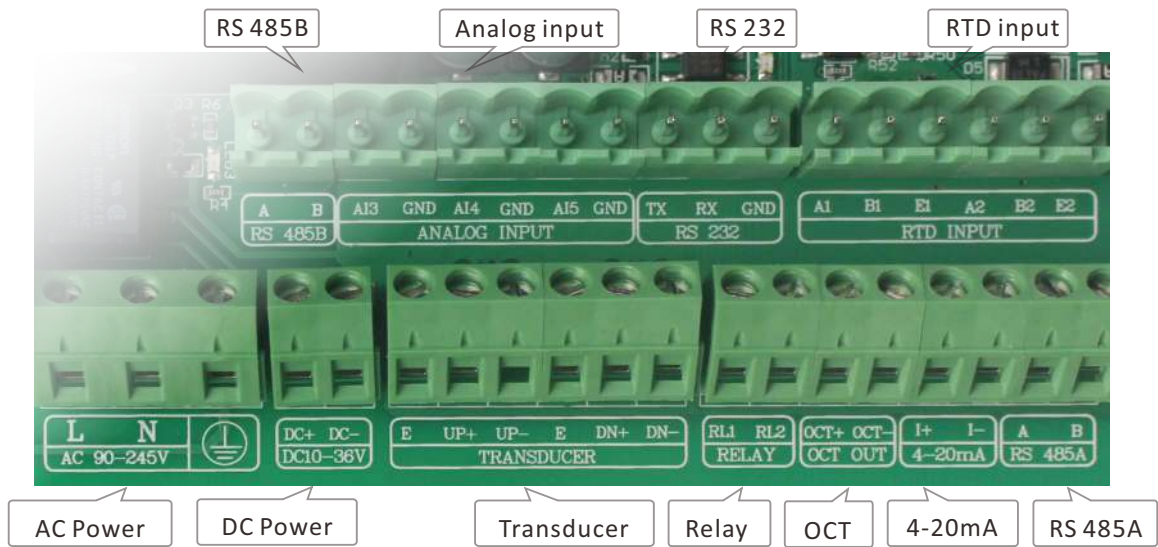


SD card

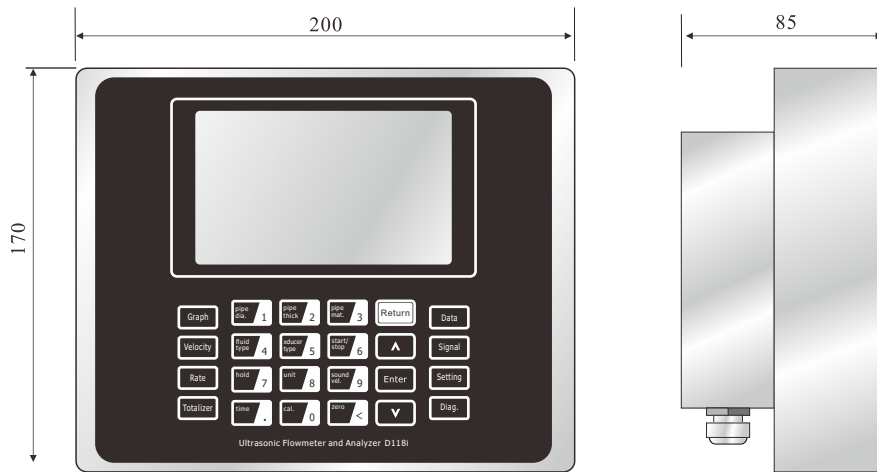
ABOUT D118i

INTERFACE AND SIZE

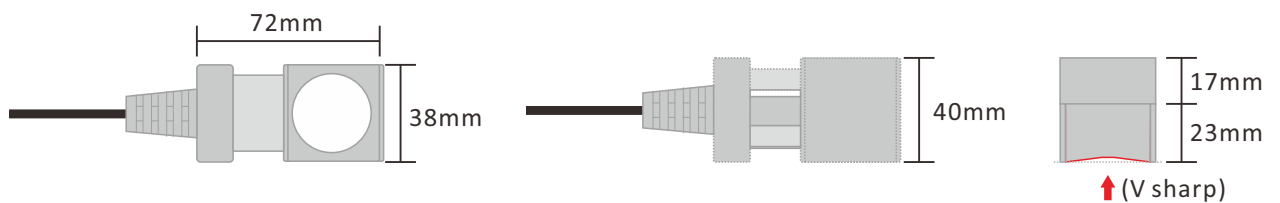
WIRING DIAGRAM



TRANSMITTER DIMENSIONS

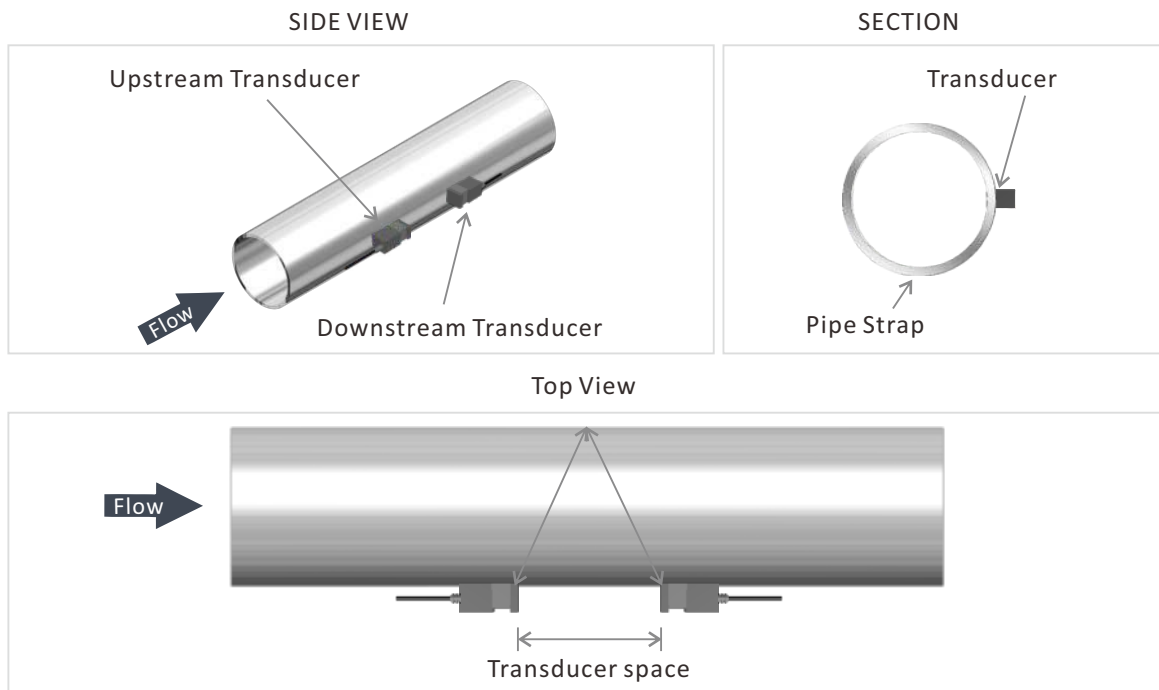


TRANSDUCER

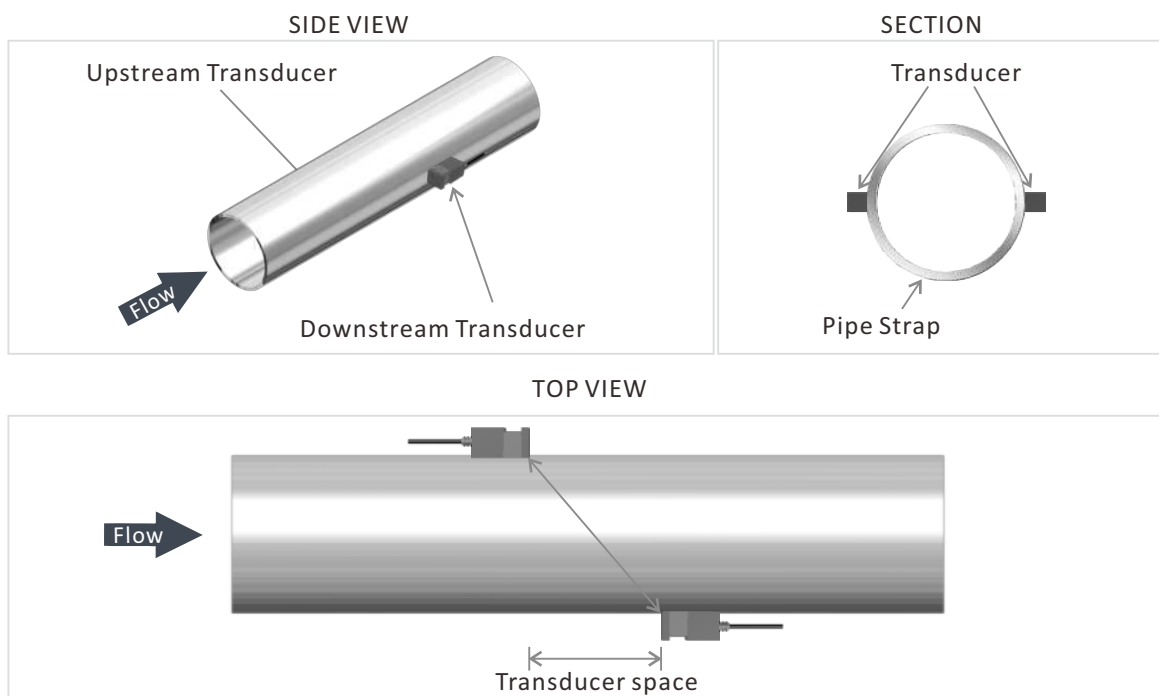


ABOUT D118i TRANSDUCER INSTALLATION METHODS

V METHOD MEASURING PIPE SIZE : 25MM-400MM



Z METHOD MEASURING PIPE SIZE: 100MM-3000MM



ABOUT D118i 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.

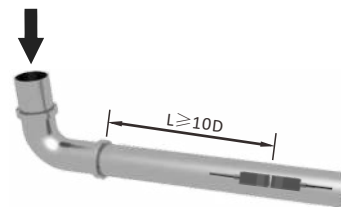
Ensure enough straight pipe length at least equal to the figure shown below for the upstream and downstream transducers installation.

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

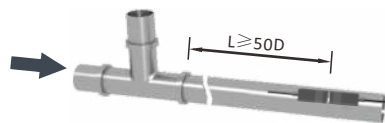
Consider the inside condition of the pipe carefully. If possible, select a section of pipe where the inside is free of excessive corrosion or scaling.

STRAIGHT LENGTH OF UPSTREAM PIPING

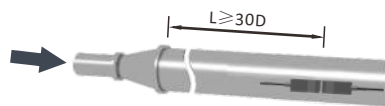
90° Bend



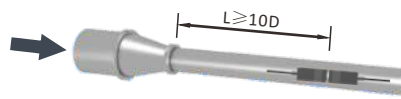
Tee



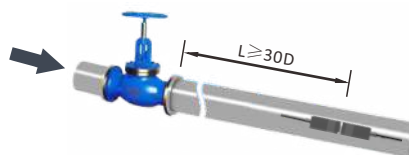
Diffuser



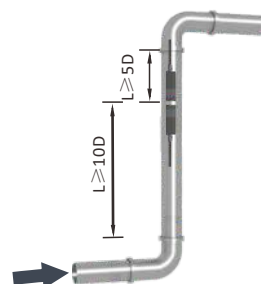
Reduce



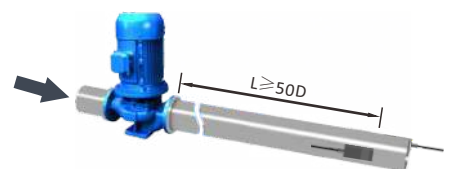
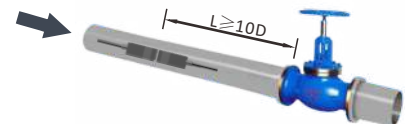
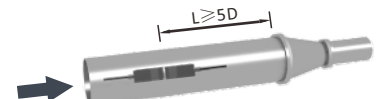
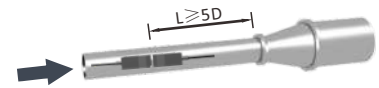
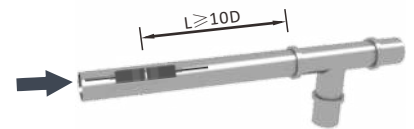
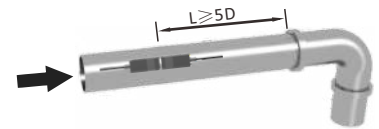
Valve



Vertical



STRAIGHT LENGTH OF DOWNSTREAM PIPING



ABOUT D118i

ORDERING INFORMATION

MODEL

DESCRIPTION

| | |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D118i | <p>Flow Range: 0.03 ~ ±40ft/s (0.01~ ±12 m/s) Installation method: Wall mount Accuracy: ±0.5% of measured value Repeatability: 0.15% Pipe Size Range: 1"~200"(25mm ~ 5000mm) 4.7 inch TFT LCD, touch button, humanized design 1A@125VAC or 2A@30VDC Transducer: IP68, 30ft cable(9m)</p> |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

CODE

OUTPUT

| | |
|---|---------------------------------------------------------|
| 1 | 4-20mA, OCT pulse output, relay output, RS-232 / RS-485 |
|---|---------------------------------------------------------|

CODE

TRANSMITTER ENCLOSURE AREA CLASSIFICATION

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

CODE

TYPE OF SENSOR

| | |
|-------|----------------------------------------------------------------------------|
| C020 | Clamp on transducer, Operating temperature:-40°F ~ +176°F (-40°C ~ +80°C) |
| CH020 | High temperature Clamp on transducer:32°F ~ +302°F(0°C ~ +150°C) |
| W110 | Insertion transducer, Operating temperature:-40°F ~ +176°F (-40°C ~ +80°C) |
| WH101 | High temperature Insertion transducer:32°F ~ +302°F(0°C ~ +150°C) |

CODE

TRANSDUCER CABLE LENGTH

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

Standard Model: D118i-1-1-C020-030

Description: Standard enclosure with Clamp-on transducers, RS232/RS485, 9m cable.

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