pFlow

Ultrasonic Flowmeter D116

About D116

D116 Series Ultrasonic Flowmeter is a state-of-the-art iniversal transit-time flowmeter designed using FPGA chip and low-voltage broadband pulse transmission.

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:

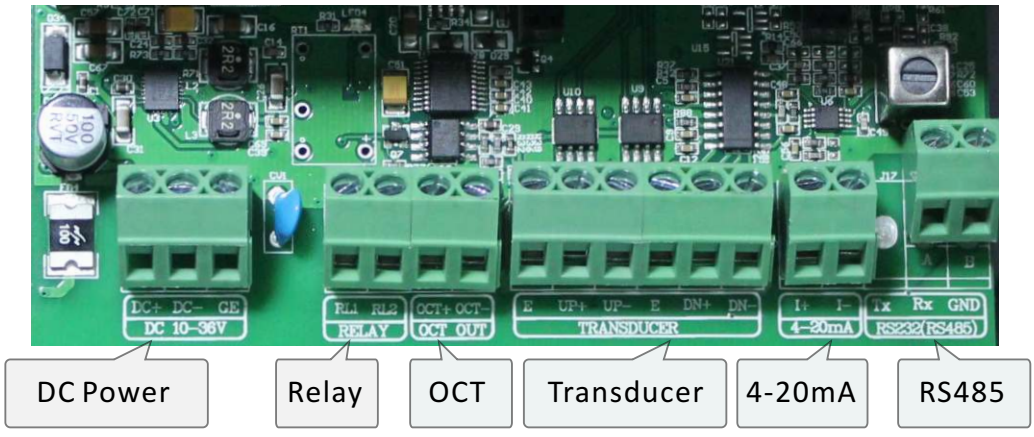
TVT technology designed.
Less hardware components,
low voltage broadband pulse transmission,
low consumption power.
Clear, user-friendly menu selections
make flowmeter simple and convenient to use.
Daily, monthly and yearly totalized flow
Parallel operation of positive, negative and net flow totalizes with scale factor (span) and 7 digit display,
while the output of totalize pulse and frequency output are transmitted via relay and open collector.

Applications

Specification

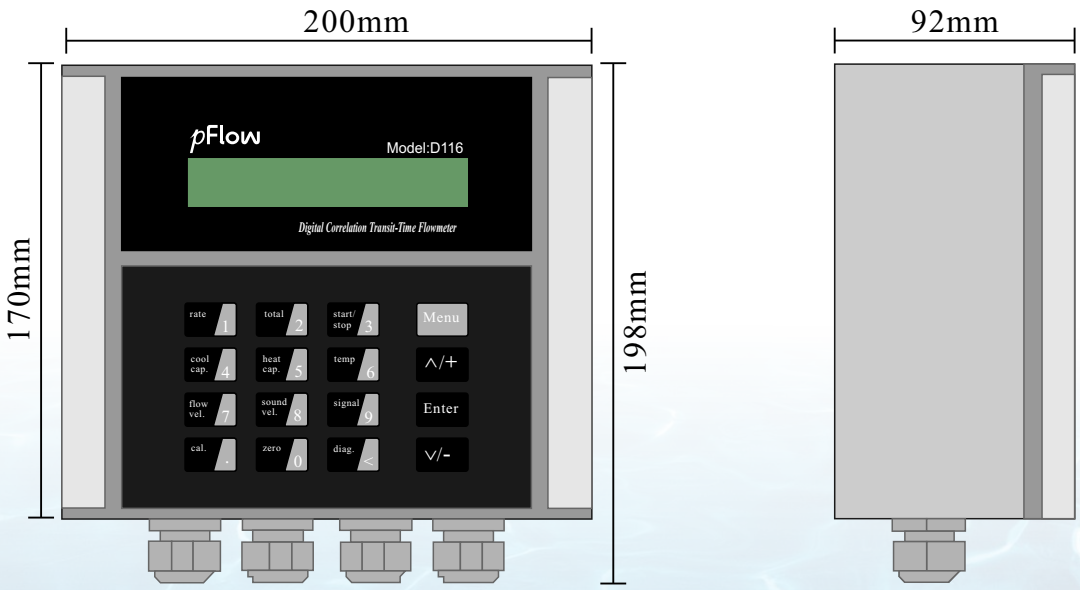
Performance specifications	
Flow range	±0.03ft/s ~ ±16ft/s (±0.01m/s ~ ±5m/s)
Accuracy	±1.0%(±1.6ft/s~±16ft/s) (±0.5m/s~±5m/s)
Pipe size	Clamp-on:1''~48''(25mm~1200mm)
Fluid	Water.
Pipe material	Carbon steel,stainless steel,PVC.
Function specifications	
Outputs	OCT Pulse output:0~5000Hz. Analog output:4~20mA,max load 750Ω.
Communication interface	RS485 MODBUS
Power supply	10~36VDC/1A
Keypad	16(4×4)key with tactile action
Display	20×2 lattice alphanumeric, back lit LCD.
Temperature	Transmitter:14℉~122℉(-10℃~50℃) Transducer:32℉~176℉(0℃~80℃)
Humidity	Up to 99% RH,non-condensing
Physical specifications	
Transmitter	PC/ABS,IP65.
Transducer	Encapsulated design,IP68.
Transducer cable	Standard cable length:30ft(9m).
Weight	Transmitter:approximately 0.7kg; Transmitter:approximately 0.4kg

Wiring Diagram

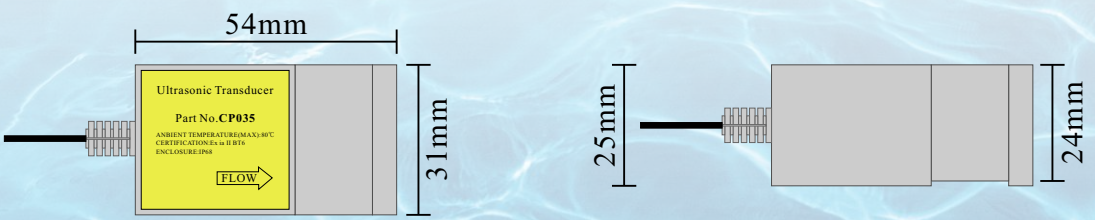


Transmitter Dimensions

Transmitter

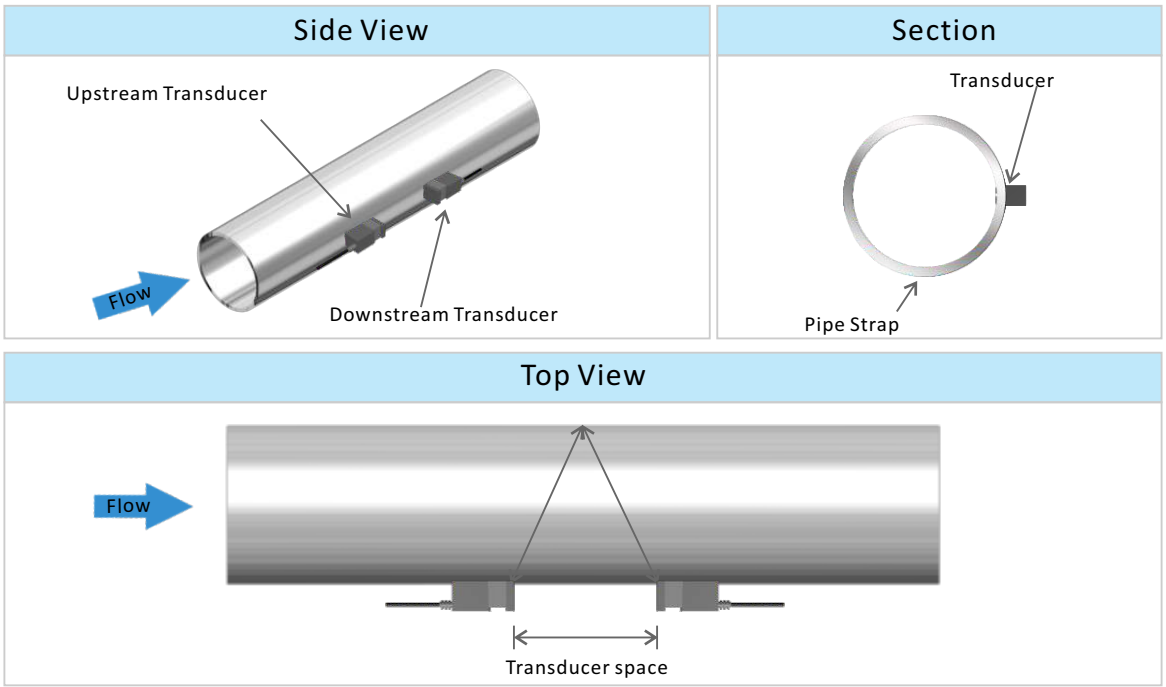


Transducer

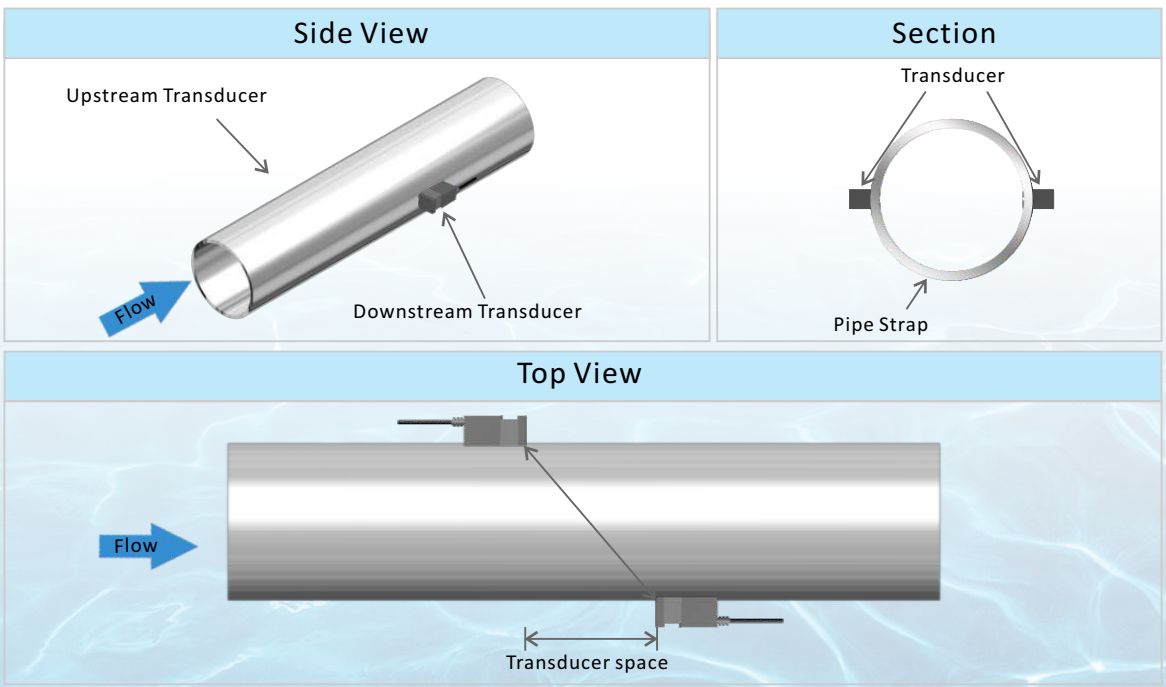


Transducer Installation Methods

V method measuring pipe size : 25mm-400mm



Z method measuring pipe size: 100mm-800mm



Installation Site Selection

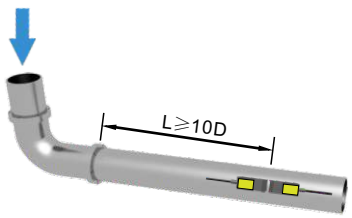
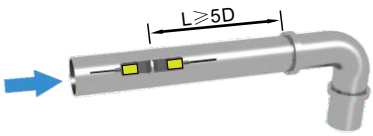
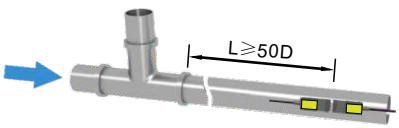
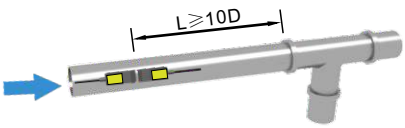
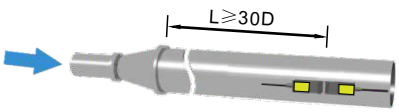
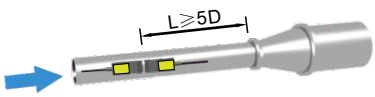
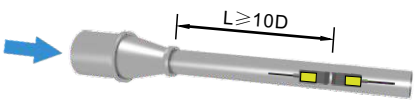
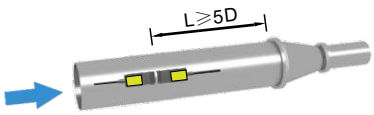
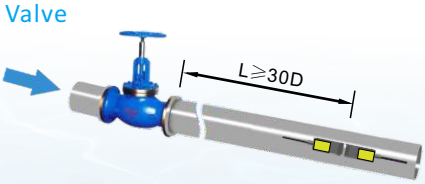
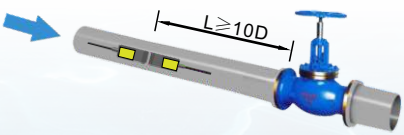
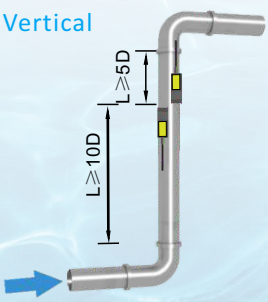
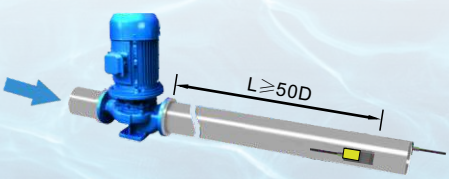
When selecting a measurement site, it is important to select an area where the fluid flow profile is fully developed to guarantee a highly accurate measurement. Use the following guidelines to select a proper installation site:

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	Straight length of downstream piping
90° Bend		
Tee		
Diffuser		
Reduce		
Valve		
Vertical		

Ordering Information

Description	
D116	Digital Correlation Transit Time Flowmeter Installation method:wall mount Transmitter: Flow Range:±0.03ft/s ~ ±16ft/s (±0.01m/s ~ ±5m/s) Accuracy: ±1.0% (±1.6ft/s~±16ft/s) (±0.5m/s~±5m/s) Repeatability: 0.3% Pipe Size Range:1"~30" (25mm ~ 1200mm) Keyboard:16 (4×4) touch keys Display:20×2,alphanumeric,backlit LCD Power supply:10-36V DC@1Amax Transmitter enclosure:IP65,ABS/PC enclosure Temperature:-20℃~50℃ Output: OCT pulse output 0-10KHz, Relay output, 4-20mA optional Communication: RS232, Modbus Protocol Temperature: -40℉~+140℉ (-40℃~60℃)
Output mode	
1	OCT output, Relay output, RS232
2	OCT output, Relay output, RS485
3	OCT output, Relay output, RS232, 4-20mA output
4	OCT output, Relay output, RS485, 4-20mA output
5	OCT output, Relay output, RS232, RTD input
6	OCT output, Relay output, RS485, RTD input
7	OCT output, Relay output, RS232, 4-20mA output, RTD input
8	OCT output, Relay output, RS485, 4-20mA output, RTD input
Type of transducers	
CP	Clamp on transducer, Operating temperature:32℉~ +140℉(0℃~+60℃)
W	Insertion transducer, Operating temperature:-40℉~+176℉(-40℃~+80℃)
Transducer Cable Length	
030	Standard 30ft (9m)
xxx	Maximum lengthen to 305m(1000ft), per 5m is a lengthen unit.
Type of Temperature sensor	
Pt100	Pt100 Temperature sensor
Pt1000	Pt1000 Temperature sensor

Standard Model: D116-1-CP-030
Description: standard enclosure with Clamp-on transducers,
OCT pulse output, Relay output, RS232, 9m cable.

Product Line

D116 Dedicated Ultrasonic Flowmeter

Accuracy:
±1.0%
Flow range:
0.03ft/s ~±16ft/s
Pipe Size Range:
1″~48″

P116 Portable Ultrasonic Flowmeter

Accuracy:
±1%
Flow range:
0.03 ~ ±40ft/s
Pipe Size Range:
1″~48″

D118 Dedicated Ultrasonic Flowmeter

Accuracy:
±0.5%
Flow range:
0.03 ~ ±40ft/s
Pipe Size Range:
1″~200″

P118i Portable Ultrasonic Flowmeter

Accuracy:
±0.5%
Flow range:
0.03 ~ ±40ft/s
Pipe Size Range:
1″~200″

D118i Dedicated Ultrasonic Flowmeter

Accuracy:
±0.5%
Flow range:
0.03~±40ft/s
Pipe Size Range:1''~200''

Application

Prefect performance in single liquid medium.
Eg:Water,Pure water,Beer,Oil, etc.

Remark:The above mode choose doesn't including the spool piece,it is for customization.

Gentos Measurement & Control Co., Ltd.
12/F, Block A5. Nanshan Ipark, No.1001 College Rd.
Nanshan District. Shenzhen CHINA
Tel: 86-755-26745999
Fax: 86-755-26745333
E-mail: intl@gentos.com.cn

Reps:

Adinco B.V.
Poppenbouwing 54
4191 NZ Geldermalsen
The Netherlands

Version:D116-201512