pFlow

Ultrasonic Wall-Mount Series

Clamp-on Ultrasonic Flow Meter D116

Gentos Measurement & Control Co., Ltd.

ABOUT D116
FEATURES AND CASES

D116 Series Ultrasonic Flowmeter is a state-of-the-art universal 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:

- TCT 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.

ABOUT D116 SPECIFICATION

PERFORMANCE SPECIFICATIONS

Flow range	±0.03ft/s ~ ±16ft/s (±0.01m/s ~ ±5m/s)
Accuracy	±1.0% of measured value
Pipe size	Clamp-on:1"~48"(25mm~1200mm)
Fluid	Water.
Pipe material	Carbon steel, stainless steel, PVC, Iron, copper,etc

FUNCTION SPECIFICATIONS

Outputs	OCT Pulse output:0~5000Hz. Relay output. 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

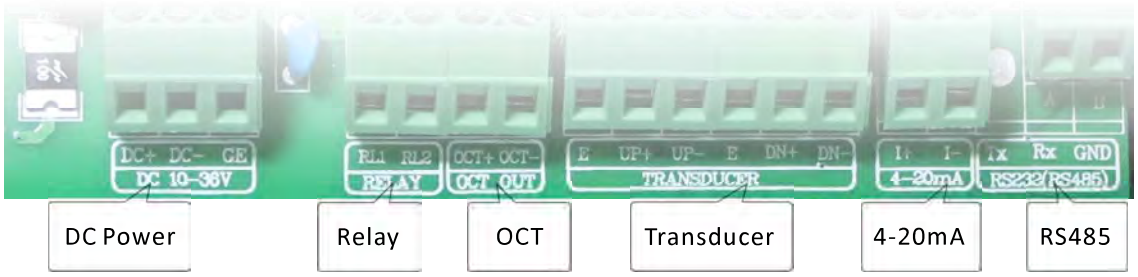
PHYSICAL SPECIFICATIONS

Transmitter	PC/ABS,IP65.
Transducer	Encapsulated design,IP68.
Transducer cable	Standard cable length:30ft(9m).
Weight	Transmitter:approximately 0.7kg; Transducer:approximately 0.4kg

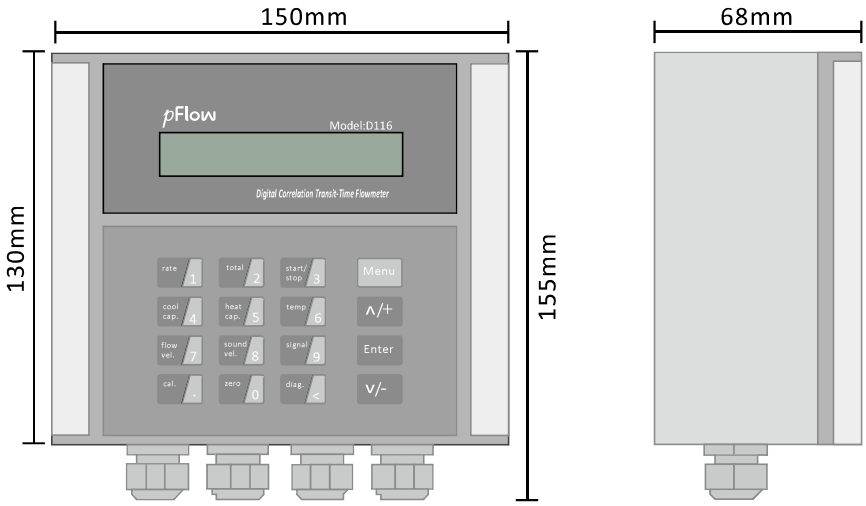
			
Transmitter	Transducer	Pipe strips	Coupling compound

ABOUT D116
INTERFACE AND SIZE

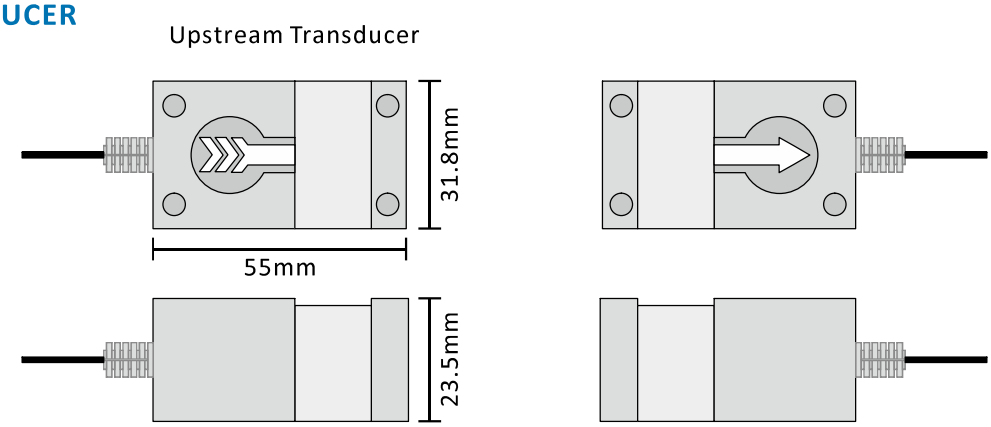
WIRING DIAGRAM



TRANSMITTER DIMENSIONS



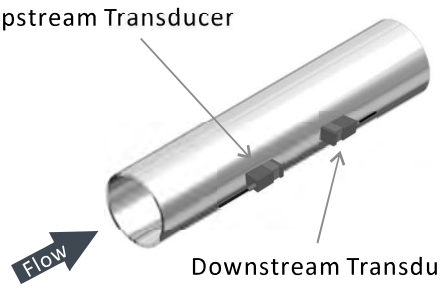
TRANSDUCER



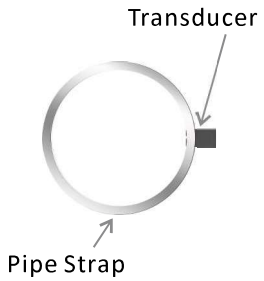
ABOUT D116 TRANSDUCER INSTALLATION METHODS

V METHOD MEASURING PIPE SIZE : 25MM-400MM

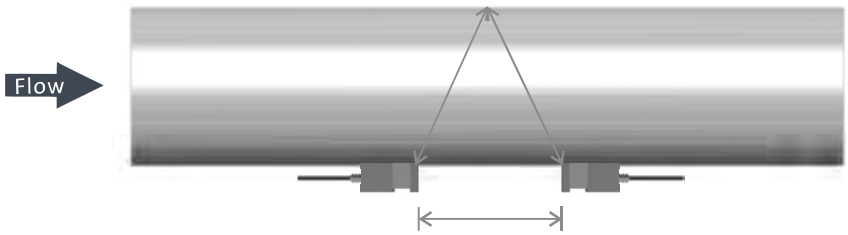
SIDE VIEW



SECTION

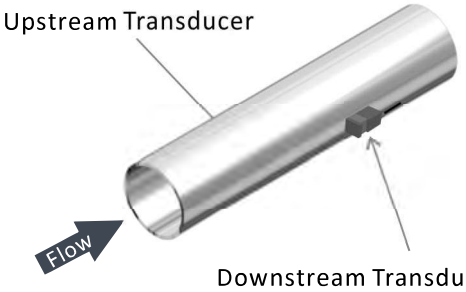


Top View

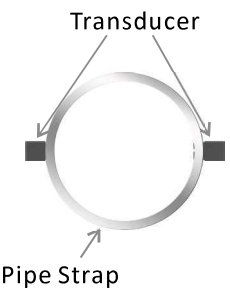


Z METHOD MEASURING PIPE SIZE: 100MM-3000MM

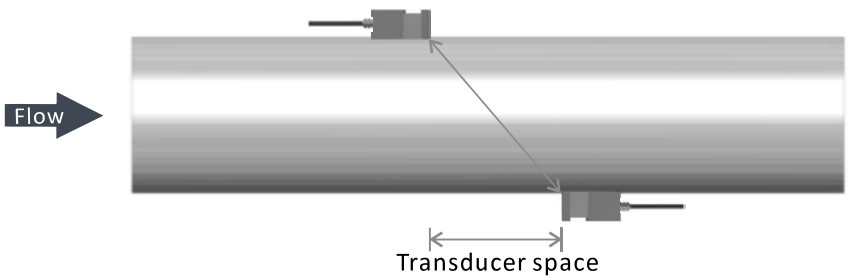
SIDE VIEW



SECTION



TOP VIEW



ABOUT D116 INSTALLATION SITE SELECTION

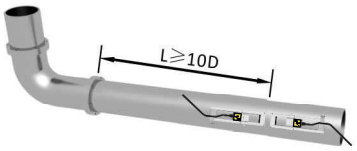
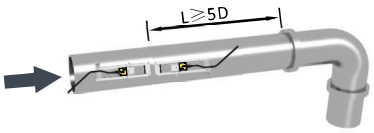
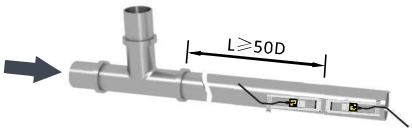
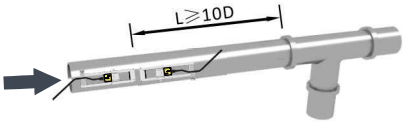
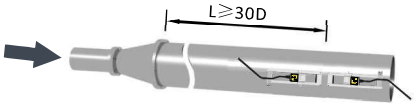
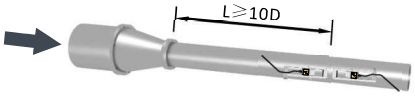
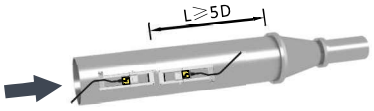
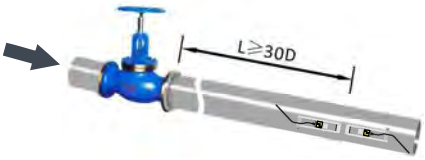
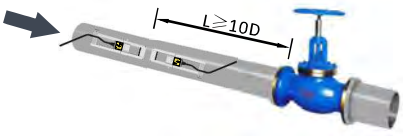
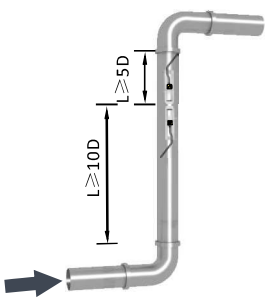
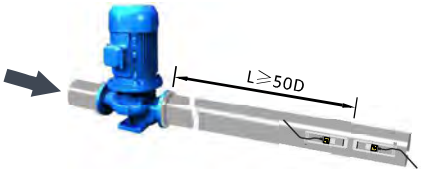
When selecting a measurement site, it is important to select an area where the fluid flow profile is fully developed to guarantee a highly accurate measurement. Use the following guidelines to select a proper installation site:

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	
	

ABOUT D116
ORDERING INFORMATION

MODEL	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% of measured value Repeatability: 0.3% Pipe Size Range:1"~48" (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 Output: OCT pulse output 0-10KHz, Relay output, 4-20mA optional Communication: RS232/485, Modbus Protocol

CODE	OUTPUT
3	OCT output, Relay output, RS232, 4-20mA output
4	OCT output, Relay output, RS485, 4-20mA output
7	OCT output, Relay output, RS232, 4-20mA output, RTD input
8	OCT output, Relay output, RS485, 4-20mA output, RTD input

CODE	TRANSMITTER ENCLOSURE AREA CLASSIFICATION
CP037	Clamp on transducer, Operating temperature:32℉~+140℉(0℃~+60℃)
W211	Insertion transducer, Operating temperature:-40℉~+176℉(-40℃~+80℃)

CODE	TRANSDUCER CABLE LENGTH
030	Standard 30ft (9m)
xxx	Maximum lengthen to 305m(1000ft), per 5m is a lengthen unit.

CODE	TYPE OF TEMPERATURE SENSOR
PT1000	Pt1000 Temperature sensor(0℃ ~ +100℃)

Standard Model: D116-4-CP037-030
Description: standard flowmeter with Clamp-on transducers CP037, OCT pulse/ Relay/4-20mA/ RS485, 9m cable.

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: business@gentos.com.cn Find our website with Google search: www.pflow.com.cn