Installation Demo

SCAN ME

pFlow

Ultrasonic Flowmeter D116 (HD Version)

Gentos Measurement & Control Co., Ltd.
12/F, Block A5. Nanshan Ipark, No.1001 College Rd.
Nanshan District. Shenzhen CHINA
Tel: 86-755-2674 5999 ext.8036
Fax: 86-755-26745333
E-mail: tanya@gentos.com.cn
Website: www.pflow.com.cn

ZEDFLO AUSTRALIA
Excellence in Calibration, Test & Measurement
Est. 1982

Distributed by:
Zedflo Australia
T: +61 8 9302 1266
U3/115 Excellence Drive, Wangara, 6065, WA
sales@zedflo.com.au - www.zedflo.com.au

ABOUT D116 (HD VERSION) FEATURES AND CASES

The ultrasonic flowmeter is a state-of-the-art universal transit-time Flowmeter designed using FPGA chip and low voltage broadband pulse transmission.,available for measuring water.

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:

SLSI technology designed. Less hardware components, low voltage broadband pulse transmission, low consumption power, high reliability, anti-jamming and outstanding applicability.

User-friendly menu designed. Parameters of pipe range, pipe material, pipe wall thickness, output signals, etc can be conveniently entered via the windows. British and Metric measurement units are available.

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. Power on/off function: allows the viewing of time and flow rate as power is switched on and off 64 times. Also, the Flowmeter has manual or automatic amendment during offline sessions.

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 open collector.

ABOUT D116 (HD VERSION) SPECIFICATION

PERFORMANCE SPECIFICATIONS

Flow range	0.03 ~ 16 ft/s (0.01 ~ 5.0 m/s).
Accuracy	± 1.0 % of measured value , velocity > 0.5m/s.
Pipe size	Clamp-on: 1" ~ 48" (25mm ~ 1200mm).
Fluid	Water.
Pipe material	Carbon steel, stainless steel, PVC, Copper.

FUNCTION SPECIFICATIONS

Limitations: Only works with these pipe materials with water, not suitable for pipes with a liner, no data logging on this model - Please ask us what models can work for your application.

Outputs	OCT Pulse output: 0-9999Hz. Analog output : 4 ~ 20mA, max load 750Ω. Relay output: max. frequency 1Hz (1A@125VAC or 2A@30VDC)
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 0.6kg; Transducer:approximately 0.8kg

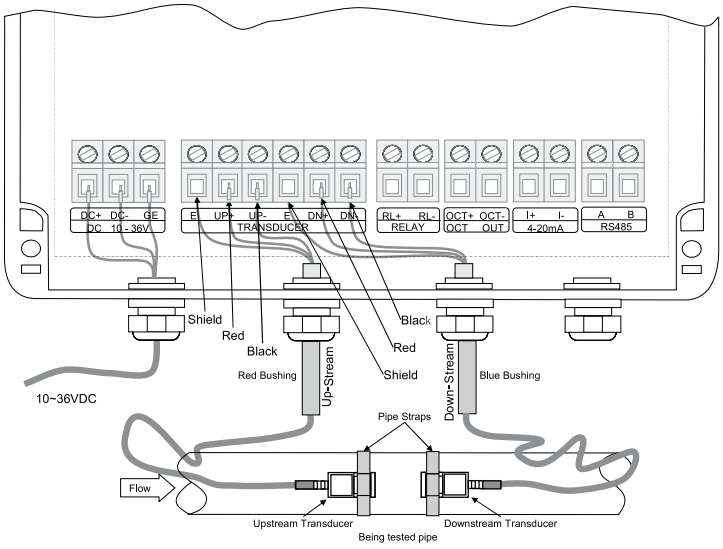
			
Transmitter	Transducer	Pipe straps	Coupling compound

STANDARD INCLUSIONS:
1. Transmitter (the flow meter body) x1pc
2. Transducers (Sensors) with cables x1 pair
3. Accessories: Coupling compound, Pipe straps x1 pair, wall mounting template, wall mounting screws
4. Documentation: User manual, factory calibration certificate

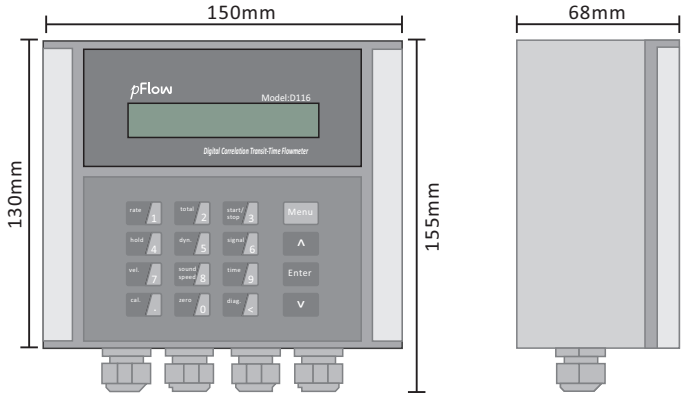
Note that no power supply is included, you need a 10-36V / 1A power supply to power it

ABOUT D116 (HD VERSION) INTERFACE AND SIZE

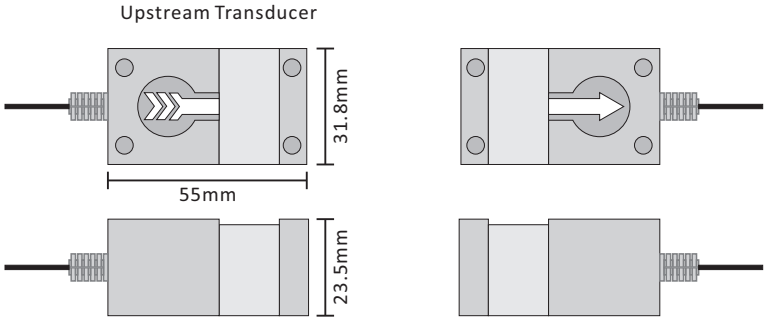
WIRING DIAGRAM



TRANSMITTER DIMENSIONS

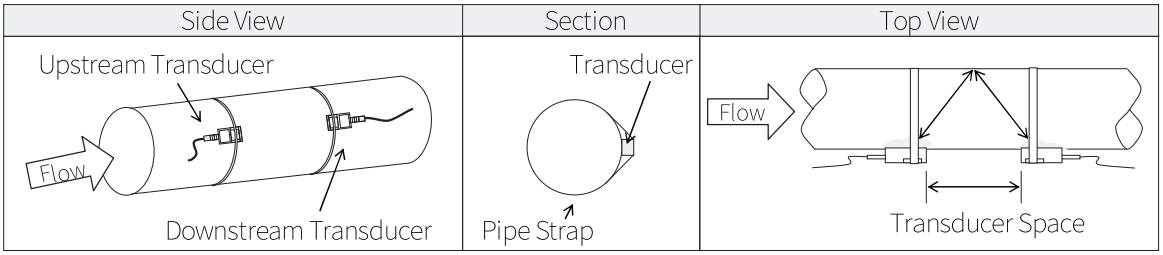


TRANSDUCER

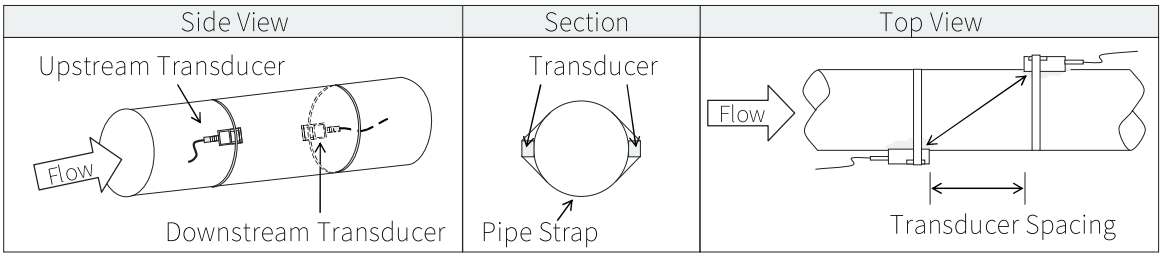


ABOUT D116 (HD VERSION) TRANSDUCER INSTALLATION METHODS

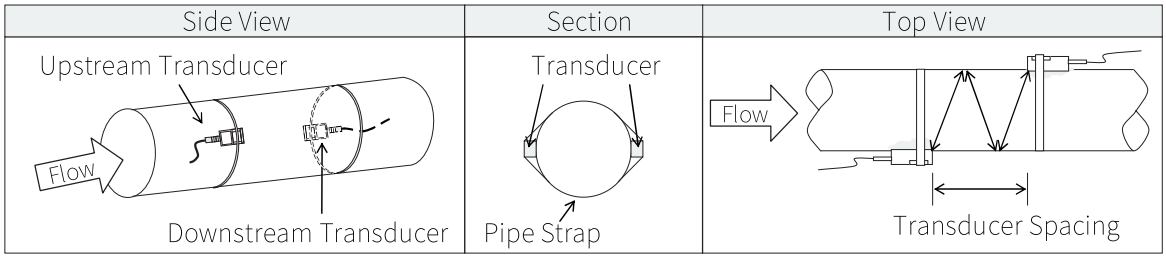
V METHOD MEASURING PIPE SIZE : 25MM-400MM



Z METHOD MEASURING PIPE SIZE: 100MM-1200MM



N METHOD MEASURING PIPE SIZE: SMALL PIPE DIAMETER MEASUREMENT



ABOUT D116 (HD VERSION) INSTALLATION SITE SELECTION

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

a) 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.

b) Ensure enough straight pipe length before and after the transducers so that the flow is non turbulent inside the pipe, refer to the table shown on the right.

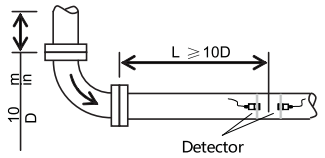
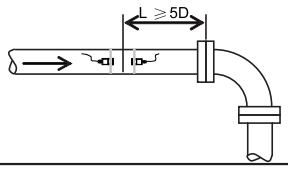
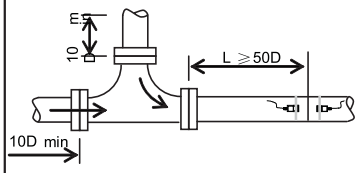
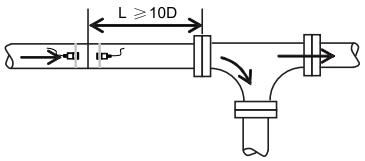
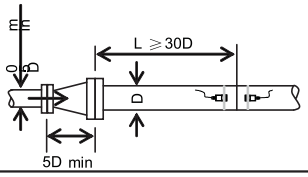
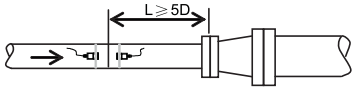
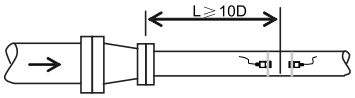
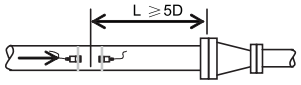
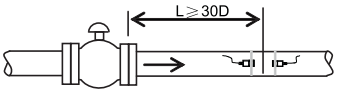
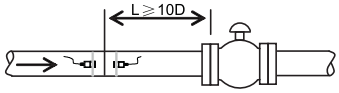
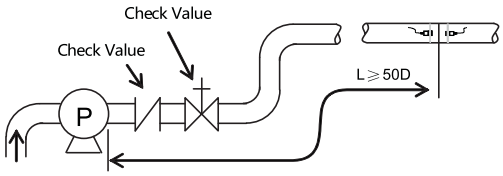
c) Transducers are best mounted on
the 3 or 9 o'clock position of the pipe section (at the side of the pipe) this is to avoid sediment at the bottom of a pipe or air bubbles at the top

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

e) Consider the condition of the pipe
inside and out. Select a section free of excessive corrosion or scaling

f) Consider the possibility of sedimentation at the bottom of the pipe and the presence of an air pocket at the top of the pipe. In addition, avoid flanges and welding areas and select a smooth portion of the pipe to install the transducers.

g) Ensure pipe and liquid are compatible or suitable to measured ultrasonically and install away from sources of interference or vibrations.

Name	Straight length of Upstream piping	Straight length of Downstream piping
90° bend		
Tee		
Diffuser		
Reducer		
Value	 Flow controlled upstream	 Flow controlled downstream
Pump		

D = Diameter
For example if the pipe is 100mm OD, 10D of that would be 1000mm

ABOUT D116 (HD VERSION) ORDERING INFORMATION

MODEL	DESCRIPTION
D116	Digital Correlation Transit Time Flowmeter Installation Method: wall mount 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 Outputs: OCT pulse/Relay/RS485/4-20mA Communication Interface: RS485 Modbus D116 Ambient Temperature: 14°F~122°F (-10°C~50°C) CP037 Operating Temperature: 32°F~176°F(0°C~80°C)

CODE	OUTPUT MODE
1	OCT output, Relay output, RS485, 4-20mA output
2	OCT output, Relay output, RS485, 4-20mA output, RTD input

CODE	TYPE OF TRANSDUCERS
CP037	Clamp on Transducer Operating Temperature: 32°F~+176°F(0°C~+80°C)
W211	Insertion Transducer Operating Temperature: 32°F~+176°F(0°C~+80°C)

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

Standard Model: D116-1-CP037-030
Description: D116 transmitter with CP037 clamp on transducers, OCT pulse/Relay/RS485/4-20mA outputs, Standard 30ft (9m).

Gentos Measurement & Control Co., Ltd.

12/F, Block A5. Nanshan Ipark, No.1001 College Rd.
Nanshan District. Shenzhen CHINA
Tel: 86-755-2674 5999 ext.8036
Fax: 86-755-26745333
E-mail: tanya@gentos.com.cn
Web: www.pflow.com.cn

ZEDFLO AUSTRALIA
Excellence in Calibration, Test & Measurement
Est. 1982

Distributed by:

Zedflo Australia
T: +61 8 9302 1266
U3/115 Excellence Drive, Wangara, 6065, WA
sales@zedflo.com.au - www.zedflo.com.au

GT-SC084-A10225