Gentos Measurement & Control Co.,Ltd.

pFlow

P116 (HD) Portable Ultrasonic Flowmeter

Repeatability:
0.2%

Pipe Size Range:
25mm~ 800mm

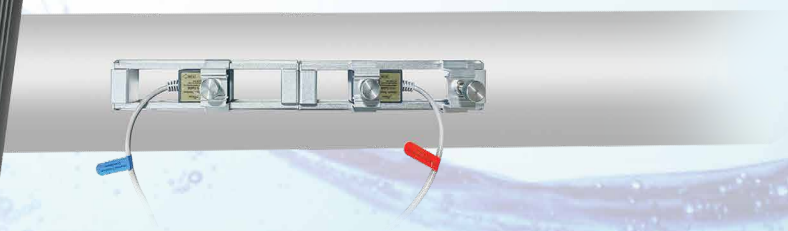
Accuracy:
± 1%

Measurable Flow Velocity:
±0.01m/s~±5m/s

Memory Data Logging :
16GB TF card

Display:
2.8" TFT black and white screen 240×320





Request price and delivery for this product from Seven Star LLC, Muscat, Oman | omansevenstar.com | info@omansevenstar.com

Product Overview



The Gentos' P116 portable ultrasonic flowmeter is a widely used time difference ultrasonic flowmeter with compact and lightweight design, making it easy to carry around.It features a recharge-able battery and universal power supply, allowing user to conduct pipeline measurements anytime, any-where. The magnetic clamp-on transducer installation is simple and can be attached to metallic pipes with magnetic properties for measurements. It is particularly suitable for on-site flow detection of toxic, highly corrosive media, overhead pipelines, and various pressure -resistant requirements. The instrument is equipped with 16G TF card for storage, enabling recording of real time flow data changes, significantly enhancing the reliability of cumulative flowmeasure ment and the security of data collection.

Product Features

- **Precision Tech:** Accurate flow readings.
- **2.8" Display:** Clear TFT screen with backlight.
- **Easy Setup:** Automated circuitry, no manual tuning.
- **Simple Interface:** One-click settings for various pipe specs.
- **Data Logging:** Stores 1,000+ data files.

Applications

Suitable for ultrasonic flow measurement in uniform liquids such as hydrogen decomposition, data cooling, solar energy, tap water, wastewater treatment, seawater desalination, industrial process water, cooling water, aquaculture, pure water treatment, RAS, HVAC, agricultural irrigation, etc.



Product Configuration

The P116 is a general-purpose transit-time ultrasonic liquid flowmeter designed with an ARM chip and low-voltage wide-pulse transmission technology. It is suitable for continuous measurement of homogeneous liquids in industrial environments, excluding those with high concentrations of suspended particles or gases.



The P116 standard configuration as shown in the diagram:

①Transmitter ② Transducer ③Carry Case ④Pipe Straps
⑤Transducer Rail ⑥Junction Box ⑦Card Reader
⑧Coupling Compound ⑨Tape ⑩Charger

Product Specification

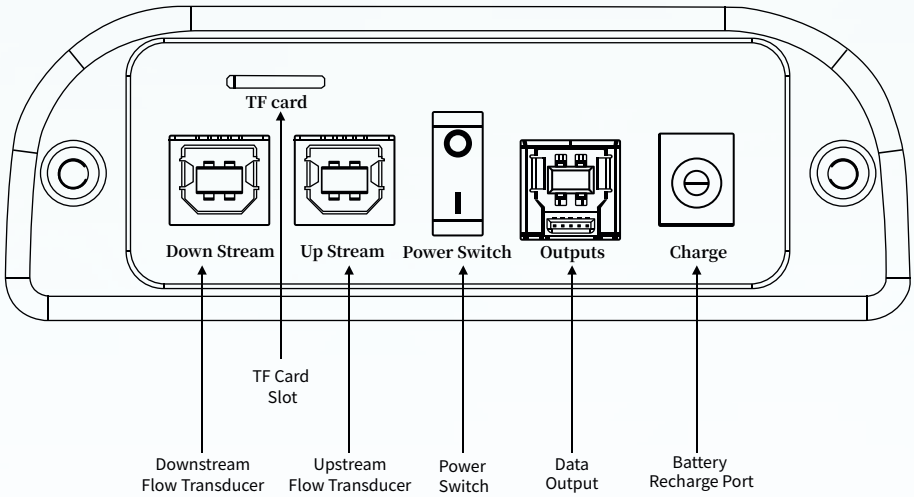
Transmitter

Content	Performance Specifications
Measurable Flow Velocity Range	0.01m/s～5m/s
Accuracy	1% of measured value(0.5m/s~5m/s)
Repeatability	0.2%
Pipe Size Range	25mm～800mm
	Function Specifications
Communication	RS485, Support MODBUS RTU, FUJI protocol
Analog output	4 ~ 20 mA,max load 500 Ω
Pulse Output	0~9999Hz, 0CT output
Power Supply	10.8V rechargeable lithium battery
Keyboard	16 Touch keys
Display Screen	2.8" TFT black and white screen 240×320
Temperature Range	-10℃～50℃
Humidity	0 ~ 99% RH, non-condensing
TF Card	Capacity:16GB (To prevail in kind) Storage quantity: at least 1,000 data files
	Physical Specifications
Transmitter	IP54
Weight	0.7kg

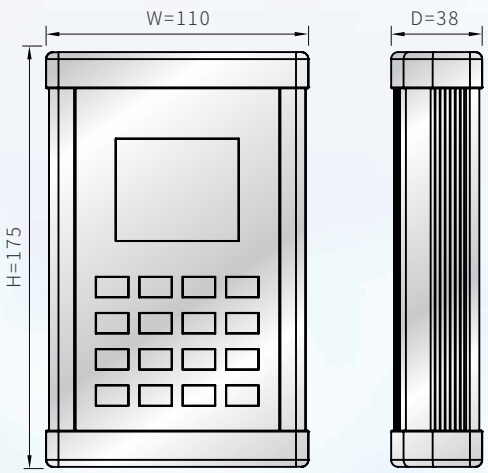
Transducer

Content	Performance Specifications
Sensor category	Magnetic suction portable
Model	CP036
Measurement medium temperature	0℃~80℃ (standard)
Measurement pipe diameter	25mm～800mm
Probe housing material	CPVC
Guide rail material	Aluminum alloy
IP Rating	IP68
Installation method	Support V-type and Z-type installation
Standard cable length	5m
Weight (including transducer rail)	1.2kg

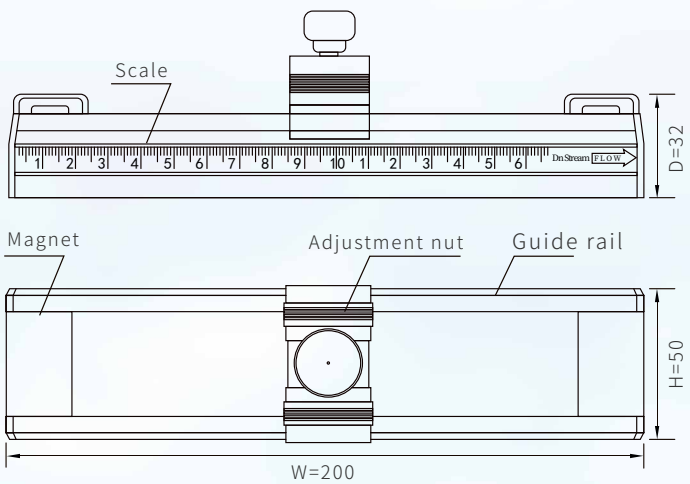
Product Wiring



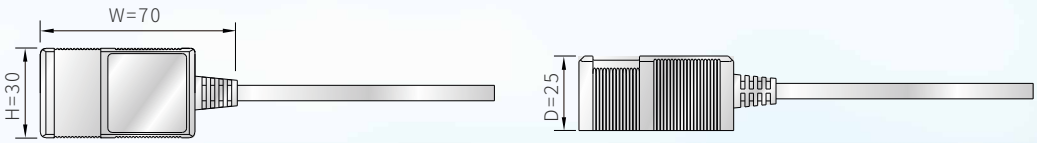
Specifications and Dimensions



Transmitter Dimensions (Unit: mm)



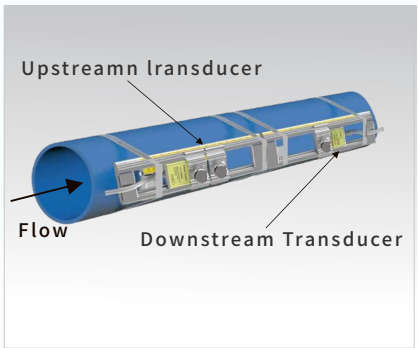
Transducer Dimensions(Unit: mm)



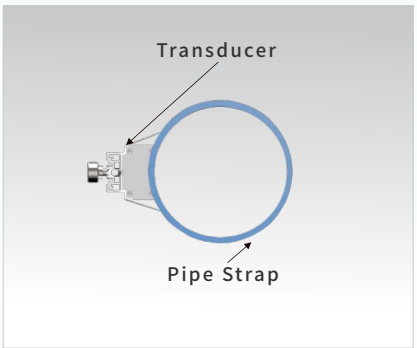
Transducer Dimensions(Unit: mm)

Transducer Installation Method

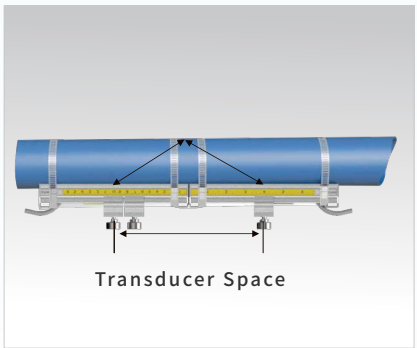
V-Type Installation Method Applicable Pipe Diameter Range: 25mm~400mm (same side, ensure both sensors are horizontally aligned, with their centerlines parallel to the axis of the pipe) (recommended)



Side View



Section

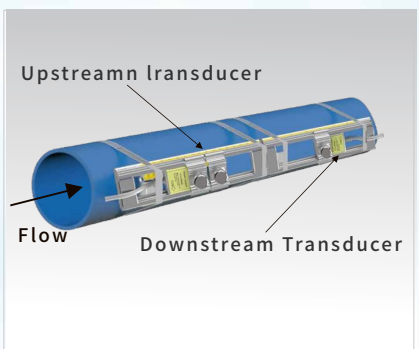


Top View

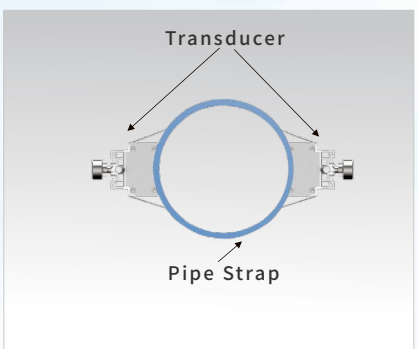
Z-Type Installation Method Applicable Pipe Diameter Range: 100mm~800mm (opposite sides, avoid installing at the top or bottom of the pipe)

When installing the flowmeter, it is recommended to use the Z-type installation method for pipe sections of 300mm and above.

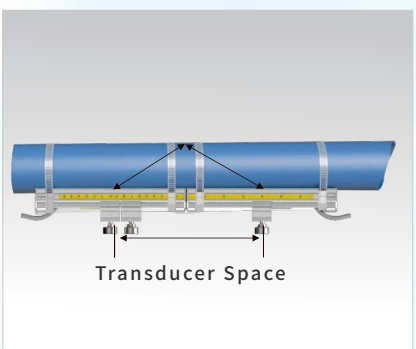
Z-Type lnstallation Method



Side View



Section

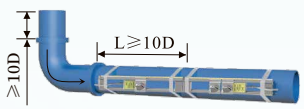


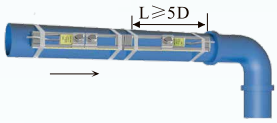
Top View

Measurement Site Selection

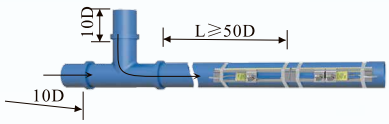
Ultrasonic flowmeters are the simplest and most convenient among all flowmeters to install. Just choose a suitable measurement point, input the pipe parameters at the measurement point into the flowmeter, and install the sensor on the pipe for measurement. When installing, the following principles should be followed:

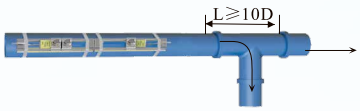
90° bend



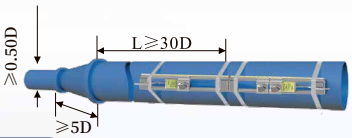


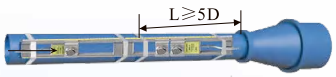
Tee



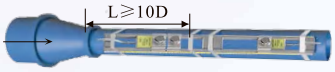


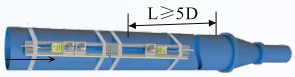
Diffuser



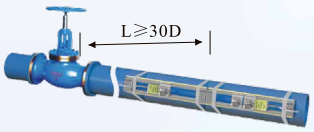


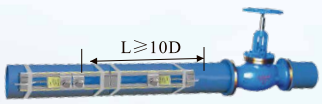
Reduce



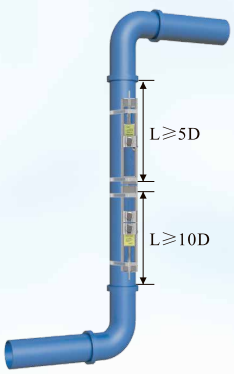


Valve

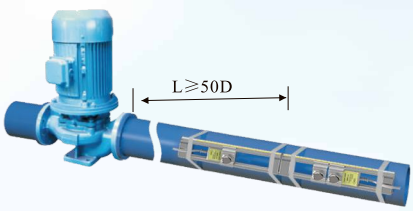




vertical installation



Pump



Principles of Point Selection:

Avoid positions at 6 o'clock and 12 o'clock to prevent signal attenuation caused by sediment at the bottom of the pipe or bubbles and cavities at the top of the pipe. Fully consider the scaling condition on the inner wall of the pipe and try to select pipe sections without scaling for measurement. If scaling cannot be avoided, consider it as a lining to achieve better measurement accuracy.

Product Model

Format of type selection: P116 - A - B

Model	Transmitter Description
P116	Name: Portable Ultrasonic Flowmeter
	Flow Velocity Range: 0.01m/s~5m/s
	Accuracy: 1% of measured value(0.5 m/s-5 m/s)
	Repeatability: 0.2%
	Storage: Equipped with16G TF card for at least 1,000 data files
	Outputs: 4-20mA output, OCT frequency output, Relay output
	Communication: RS485 communication interface
	Display: 2.8" TFT black and white screen 240×320, with backlight LCD display
	Power Supply: 10.8V rechargeable lithium battery(continuous operation for 10 hours after full charge)
	Transmitter Installation Ambient Temperature: -10°C~ 50°C
	Transmitter IP Rating: IP54

A	Transducer Description
CP036	Name: Magnetic Clamp-on Transducer
	Installation Method: Magnetic, Clamp on type
	Measurable Pipe Size Range: 25mm-800mm
	Standard Cable Length: 5m
	Sensor Casing: CPVC
	Transducer Measures Medium Temperature: 0°C~ 80°C
	Communication: RS485 communication interface
	Aluminum alloy rails
	Pipe Material : Carbon Steel, Stainless Steel, PVC, Copper

B	Transducer Cable Length
	Standard Cable Length: 5m
	Each extension unit is 5 meters ,(10m,optional)

Selection example: P116-CP036-005

[Analysis: Portable Ultrasonic Flowmeter-Magnetic Clamp-on Transducer-Cable Length 5m]

Product Series

Accuracy: 0.5
D118i Insertion
P118i(HD) Portable
D118 Insertion/Clamp on
D348D Plus multipath
.....

Accuracy: 1.0
D116 Insertion/Clamp on
P116 Clamp on

For HAVC
F5 Wall Mounted Meter
F8 Wall Mounted Meter
E5 Wall Mounted Energy Meter
E8 Wall Mounted Energy Meter
.....

Clip-on Series
MF series Clip-on flow meter
GF series Clip-on flow meter
F2 Clip-on flow meter
F3 series Clip-on flow meter
E3 series Clip-on Thermal Energy / BTU flow meter
.....

Gentos Measurement & Control Co., Ltd.
Address:12F,Block A5,Nanshan Ipark,No.1001 College Road,Nanshan District,Shenzhen, 518055,China
Tel: 86-775-2674 5999 ext. 8036
Fax: 86-755-26745333
E-mail: tanya@gentos.com.cn
Website: www.pflow.com.cn

This catalog is an a version, the final interpretation right of this information belongs to Gentos Measurement & Control Co., Ltd., if there is any change without notice!

GT-SC065-A11014

Supplied in Oman and the GCC by Seven Star LLC | Request a quote: omansevenstar.com | info@omansevenstar.com