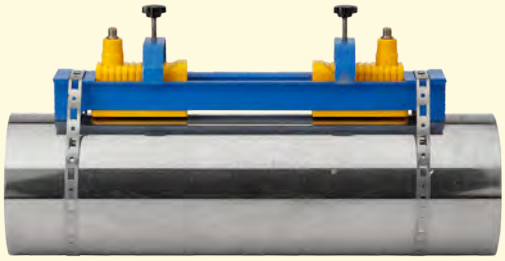
Clamp-on Ultrasonic Flowmeter

Xonic® 100L

- Clamp-on Transducers
- No cutting pipe for installation
- First developed in Korea
- Exported to more than 10 countries



Xonic® 100L

What is Xonic®100L?

Xonic 100 measure transit-time of flow and use DSP (digital signal processing) technology to analyze ultrasonic signals. This DSP technology can remove any noise from pipe and electronics. Also, Xonic 100 use Cross Correlation and FFT (Fast Fourier Transform) technology to make very clean ultrasonic signals. Measuring pipe is from 12 ~ 6,000mm, and velocity range is from 0.02 ~ 20m/sec. Xonic 100 can measure very slow flow, so very suitable for block flow (leak) monitoring system. Also, it has two 4-20mA inputs, so user can use this inputs to receive pressure and temperature data without PLC.

Why use Xonic®100L?

Clamp-On Technology make installation very simple. User just attach clamp-on transducers on pipes or insertion with hottap valve transducers drill to pipe. No need to stop water supply for installation and after service. Xonic100L can work with many kinds of pipe, such as: Steel, Stainless (SUS), Ductile Iron, Copper, A/C, PVC, PE, PB, FRP or others if know sound velocity.

Turn-down ratio of Xonic100L is more than 500 :1. Xonic 100L is the best flowmeter to check minimum flow during midnight. The Flow in midnight is down to 1 m3/h for 100 mm pipe and Xonic 100L can keep the accuracy. Xonic 100L use Cross Correlation technology. The technology is able to remove most noises outside the pipe. Also, Xonic 100L can measure liquids contain heavy air and slurry.

Xonic 100L has large color graphic LCD. It allows user to read the flow, total, analog input data (pressure, level, etc.) and the ultrasonic signal diagram. So user can check how flowmeter works in field without oscilloscope as diagnostic functions. Xonic 100L is dual beam or dual path is basic model. User can use as single channel flowmeter with one pair of transducers, and dual channel or dual path flowmeters with two pairs of transducers.

Clamp-on Ultrasonic Flowmeter **Xonic® 100L**

Installation Photo





Performance

- Clamp-on Type
- Velocity 0.02~20m/s
- Measure Water Contains 30% Air and Slurry
- No Cutting Pipe for Installation
- Oscilloscope Function
- DSP Technology (Cross Correlation)
- 12 Patents
- Positive & Negative Flow Measurement
- Two Analog Inputs for Pressure Level
- Self-Diagnostic Functions
- Touch Key Programming
- Large Color Graphic LCD Display
- Key Lock Function
- 1,000,000 Points Datalogging

Applications

- Municipal Water, Waste Water
- Block Flow Monitoring
- Strong Acid, Solvent
- Milk, Beer, Demi-water
- Oil, Chemicals
- Cool and Hot Water
- Liquids contain Heavy Slurry and Air
- Pulp, Steel Industries
- Nuclear Power Plant
- Sea Water

Flow Computer and Transducers

Flow Converter

Transducers

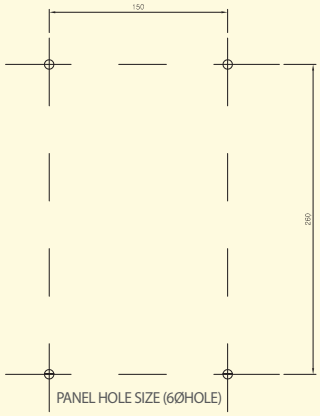
Cable and Sensor Track

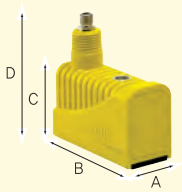
Xonic® 100L

Specification

Installation	Clamp-on Ultrasonic Flowmeter
Principles	Transit-Time, AR(Anti-Round) Mode
Measuring Pipe Size	12-6000mm
Accuracy	±1.0% (single path), ±0.5% (dual path)
Velocity	±0.02~20m/s
Turn-Down Ratio	500:1
Repeatability	0.25%
Required Straight Run	Upstream 10D, Downstream 5D (single path) Upstream 5D, Downstream 3D (dual path)
CPU	32-bit microprocessor
Data Input	4-20mADC
Data Output	Two 4-20mADC for flow Relay for Total RS-232C / RS-485 Modbus
Datalogger	SD 2GB
Display	Color Graphic LCD Display (flowrate: 4.5digit, Total: 12digit) Flowrate, Velocity, Total (POS, NEG, NET), Input Data (AI), Delta T, Ultrasonic Signal Shape, Frequency
Temperature Range	Flow Computer -20 ~ +75℃ Transducer -40 ~ +120℃
Power	110 ~ 220VAC, free voltage
Enclosure	IP65
Transducer	IP68, submersible

Drawings





	A	B	C	D	PIPE SIZE
size B	23	47	37	72	15~80
size C	35	65	35	71	50~250
size D	35	93	50	85	200~500
size E	51	145	73	110	500~6000

※ It can be changed depending on pipe material and thickness.