

SiteLab

# SL1188-C

Correlation Transit-Time  
ULTRASONIC FLOWMETER



## TYPICAL APPLICATIONS

- Water, sewage, seawater
- Water distribution
- Power plants, cooling water
- Boiler feed water
- Mining leaching and return flows
- Liquid petroleum products
- Pipeline leak detection
- Chemicals
- Energy management systems
- Process plant water and chemicals

## HIGHLIGHTS

- Accuracy better than  $\pm 1\%$
- High repeatability 0.3%
- One meter for a wide range of pipe sizes: 1~200"(25mm~5000mm)
- Wide bi-directional flow range: -40~0~+40ft/s (-12~0~+12m/s)
- Robust design for rugged service and severe environments

The SL1188 Series correlation ultrasonic flowmeter is an excellent alternative to magnetic, vortex, differential pressure, and other types of flowmeters used in industrial, water and wastewater, and water distribution applications.

Though principally designed for clean liquid applications, the SL1188 is tolerant of liquids with small amounts of gas/air bubbles or suspended solids found in most industrial environments.

The SL1188 utilizes the world's most advanced IC and microprocessor technology and timing circuitry (0.01 nS), which gives the SL1188 the advantage of high precision, high reliability and low cost.

The SL1188 Series is manufactured of high quality materials by an ISO9001 certified manufacturing unit. The

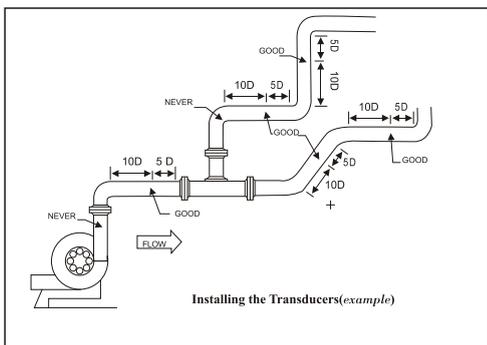
client enjoys the support of ultrasonic flow measurement professionals with much experience from the mid-1970's. The client has the advantage to receive excellent support and application knowledge to assist him in achieving the best success in applying our flowmeters to their applications, as well as resolve any potential problems quickly.



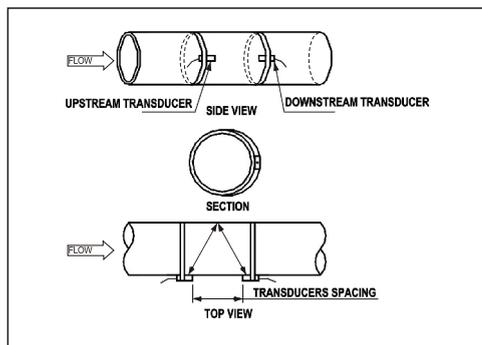
Sensor installation on pipe, V-method

## INSTALLATION

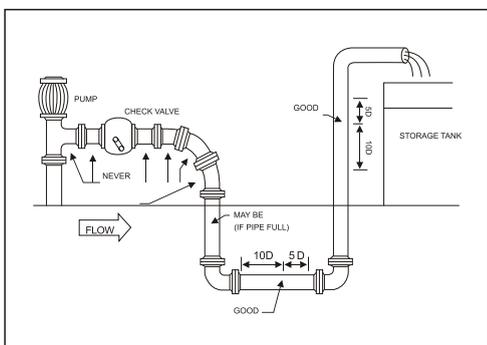
### Site selection



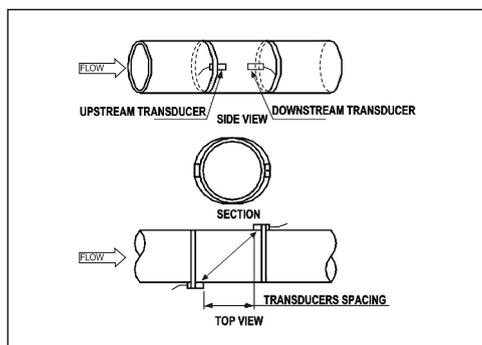
### V-Method sensor installation



### Sensor location



### Z-Method sensor installation



Proper site selection for the installation of the ultrasonic flow sensors is critical to the successful performance of any flowmeter that measures velocity in a pipe section of known dimensions. It is especially true of ultrasonic flowmeters and any other velocity measurement type flowmeters.

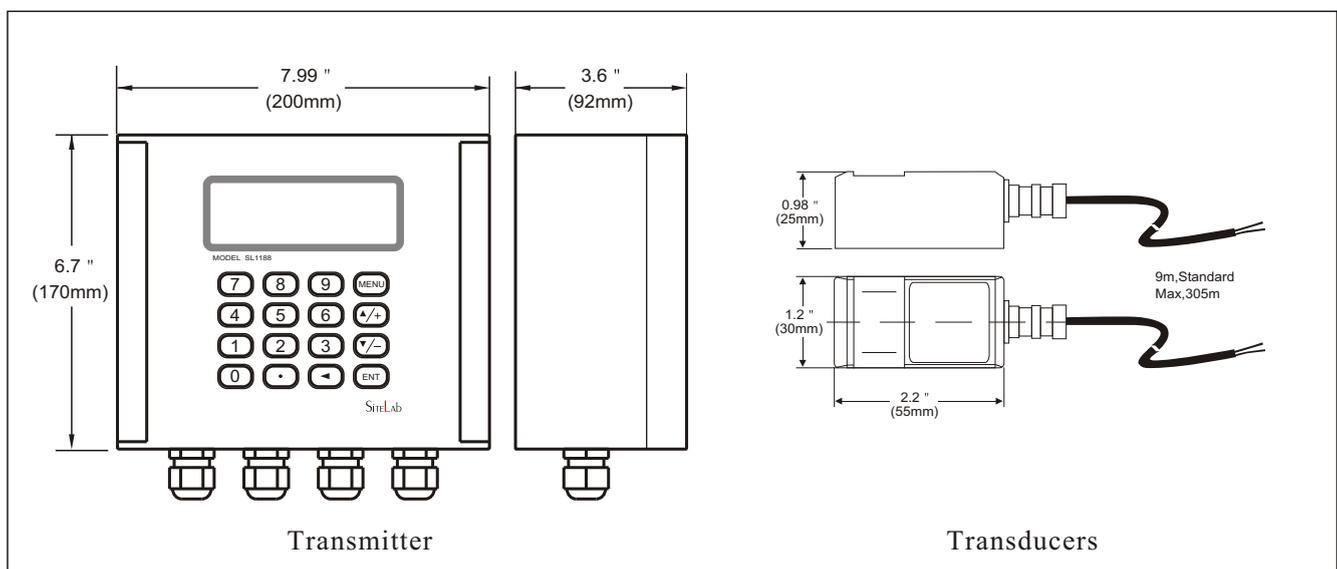
The drawings provided above give some help in proper site selection and sensor location for installation.

The method of sensor installation varies with pipe size and other conditions.

## SPECIFICATIONS

Performance specifications	
Flow range	0 ~ ±40 ft/s (0 ~ ±12 m/s)
Accuracy	±1.0% of measured value (for 1.5~40 ft/s or -1.5~-40 ft/s)
Repeatability	0.3%
Linearity	±1.0%
Pipe size	1 in to 200 in (25mm to 5000mm)
Function specifications	
Outputs	Analog output: 0/4~20mA (max load 750 Ω) Pulse output: 0~9999Hz, OCT, (min. and max. frequency is adjustable) Relay output: SPST, max 1Hz, (1A@125VAC or 2A@30VDC)
Power supply	90 to 245 VAC, 48 to 63Hz. or 10 to 36 VDC
Keypad	16 (4*4) key with tactile action
Display	40 character, 2 line (20*2), alphanumeric, backlit LCD
Temperature	Transmitter: -40°C ~ 60°C Transducer: -40°C ~ 80°C (standard); -40°C ~ 150°C (high temp.)
Humidity	Up to 99%RH, non-condensing
Physical specifications	
Transmitter	NEMA 4X (IP65), Die-cast aluminum
Transducer	Encapsulated design Standard/maximum cable length: 30ft/1000ft (9m/305m)
Weight	Transmitter: approximately 4.7 lb (2.15kg) Transducer: approximately 2.0 lb (0.9kg) (standard)

## DIMENSIONS



## Ordering Information

Model Code	Description
SL1188	Digital correlation transit time flowmeter Calorimeter function Display: 20*2, alphanumeric, backlit LCD Flow range: 0~ ±40 ft/s (0~ ±12 m/s) Keypad: 4*4 key Output: 0/4~20 mADC, OCT, Relay (SPST) Power Supply: 90 to 245VAC, 48 to 63Hz or 10 to 36VDC
Optional Code	Transducer
S	Standard clamp-on type, Operating temperature: -40°C ~+80°C
H	High temp. Clamp-on type, Operating temperature: -40°C ~+150°C
Optional Code	Output
1	RS232C
2	RS485
Optional Code	Transducer Cable Length
30A	30 ft. (9m), Standard
× × × × A	Additional cable length, max. 1000 ft. (305m), 10 ft. Increments
Typical Model Number: SL1188-S-1-30A	

**Represented by:**

**SITELAB**

Correlation Transit-Time ULTRASONIC FLOWMETER