Recorder Flow Pressure Temp Analyzer Level

Datasheet

Ultrasonic flowmeter

SUP-2100H

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INDUSTRIAL SUPPLIES AND MANUFACTURING EQUIPMENT

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Supmea®

Datasheet

Ultrasonic flowmeter
SUP-2100H

The latest SUP-2100H flowmeter has combined mobile convenient straight forward and quick liquid measurement with the highly proven precision reliability and performance of ultrasonic technology. Simply attach the sensor unit to the tube and connect the compact evaluation unit - now just read the results.It is just as easy to use this device for data logging. Its ease of use and flexibility make the SUP-2100H the ideal solution for flow measurement in a variety of applications in virtually any sector of industry.

Applications

- Chemicals
- Tap water
- Sewage water
- Raw Sewage
- Water plant
- Building water supply
- Heating flow monitoring
- Food and drug
- Water supply



SUP-2100H

Features

- 0.5% of linearity
- Patent balanced lower-voltage multi-pulse
- Ultrasonic igniting
- Built-in date totalizers
- 0.5 second totalizing period
- 100 Pico-second resolution of time measurement
- 0.2% of repeatability
- 4 flow totalizers
- Built-in data logger
- Good anti-interference

Principle

The flow meter operates by alternately transmitting and receiving a frequency modulated burst of sound energy between the two transducers and measuring the transit time that it takes for sound to travel between the two transducers. The difference in the transit time measured is directly and exactly related to the velocity of the liquid in the pipe.

Parameters

Linearity	0.5%
Repeatability	0.2%
Accuracy	土1% of reading at rates>0.2 mps
Response Time	0.999 seconds, user.configurable
Velocity	土32 m/s
Pipe Size	20mm.6000mm
Rate Units	Meter, Feet, Cubic Meter, Liter, Cubic Feet, USA Gallon, Imperial Gallon, Oil Barrel, USA Liquid Barrel, Imperial Liquid Barrel, Million USA Gallons. User configurable.
Totalizer	7.digit totals for net, positive and negative flow respectively
Liquid Types	Virtually all liquids
Security	Setup values Modification Lockout. Access code needs unlocking
Display	4x8 Chinese characters or 4x16 English letters
Communication Interface	RS-232C, baud.rate: from 75 to 57600. Protocol made by the manufacturer and compatible with that of the FUJI ultrasonic flow meter. User protocols can be made on enquiry.
Transducers	Model M2 for standard, other 4 models for optional
Transducer Cord Length	Standard 2x5 meters, optional 2x10 meters/2x15 meters
Power Supply	3 AAA Ni.H built.in batteries. when fully recharged it will last over l0 hours of operation. 100V.240VAC for the charger
Data Logger	Built.in data logger can store over 2000 lines of data
Manual Totalizer	7-digit press-key-to-go totalizer for calibration
Housing Material	ABS
Case Size	100x66x20mm
Handset weight	514g (1.2 lbs) with batteries

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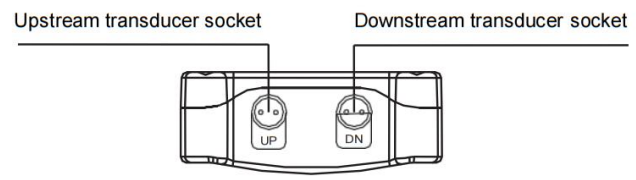
Sensor	Picture	Model	Caliber	Temperature	Size
Standard clamp		Small	DN40-100	-30~90℃	45×25×32
		Medium	DN50-700		64×39×44
		Big	DN300-1200		97×54×53
High temperature clamp		Small	DN40-100	-30~160℃	45×25×32
		Medium	DN50-700		64×39×44
		Big	DN300-1200		97×54×53
Standard frame		Small	DN15-100	-30~90℃	318×59×85
		Medium	DN50-300		568×59×85
		Extend	DN300-700		188×59×49
High temperature clamp		Small	DN15-100	-30~160℃	318×59×110
		Medium	DN50-300		568×59×110
		Extend	DN300-700		188×59×49

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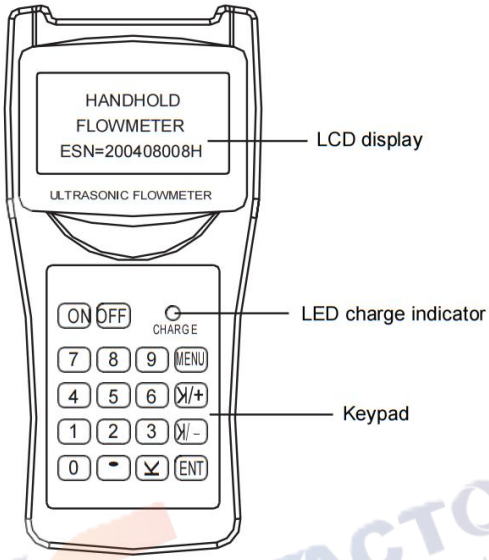
Dimension

Converter

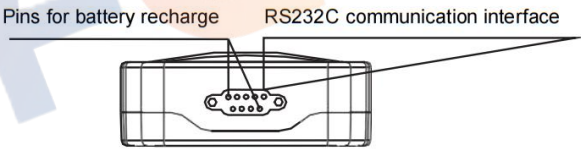
Top wierw



Front wiew



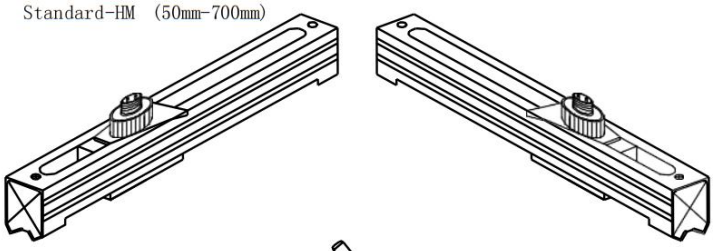
Bottom wiew



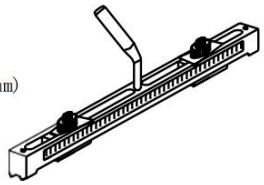
Sensor

Transducers:

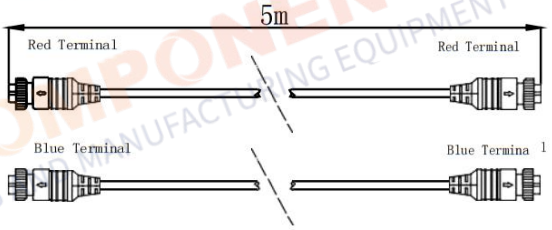
Standard-HM (50mm-700mm)



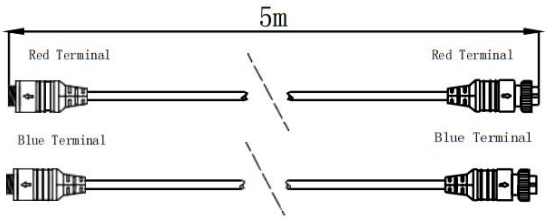
Standard-HS (20mm-100mm)
(Optional Accessaries)



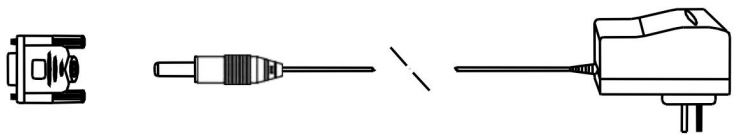
Cable 5m x2



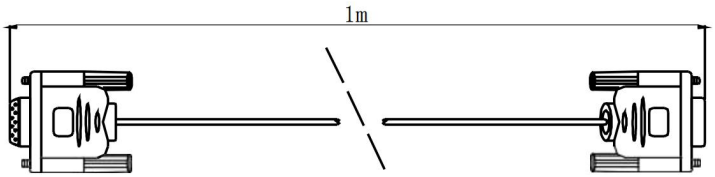
Extended Cable 5m x2(Optional Accessaries)



Converted Terminal and AC/ DC Converted Adapter



Cable of RS-232C interface

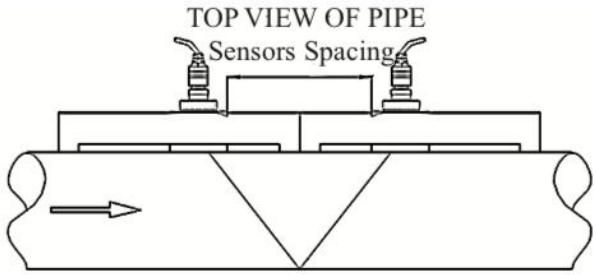


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Installation

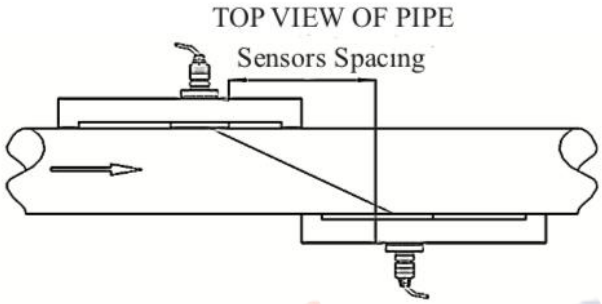
V-method Installation

V-method installation is the moswidely used mode for daily measurement with pipe inner diameters ranging from 20 millimeter to 300 millimeter. It is also called reflective mode ormethod.



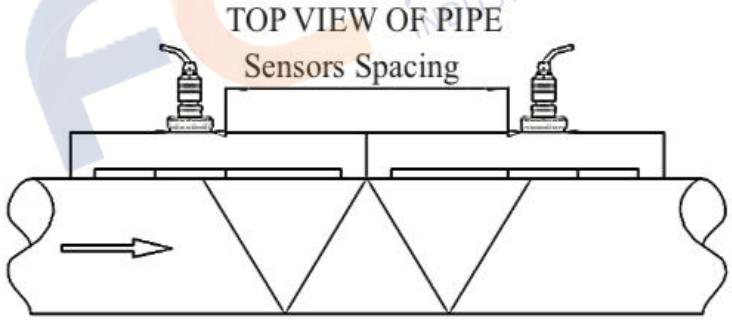
Z-method Installation

Z-method is commonly used when the pipe diameter is between 300 millimeters and 500 millimeters.



W-method Installation

W-method is usually used on plastic pipes with a diameter from 10 millimeters to 100 millimeters.



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Ordering code

SUP-2100H-ST1-DNXX-J6-T1-V8-CS5							Description
SUP-2100H	-	-	-	-	-	-	-
Type of Sensor	ST1						Standard small clamp type (DN40～DN100)
	ST2						Standard medium-sized clamp (DN50～DN700)
	ST3						Standard large clamp type (DN300～DN1200)
	ST4						High temperature small clamp type (DN40～DN100)
	ST5						High temperature medium-sized clamp type (DN50～DN700)
	ST6						High temperature large clamp type (DN300～DN1200)
	ST7						Standard small bracket type (DN15～DN100)
	ST8						Standard medium bracket type (DN50～DN300)
	ST9						Standard extension bracket type (DN300～DN700)
	ST10						High temperature small bracket type (DN15～DN100)
	ST11						High temperature medium bracket type (DN50～DN300)
	ST12						High temperature extension bracket type (DN300～DN700)
Pipe size		DNXX					Standard/high temperature outer clamp sensor range: DN40～DN1200 Standard/high temperature bracket sensor range: DN15～DN700
Accuracy			J6				1.0%
Temperature resistance				T1			-30℃～90℃ (Standard clamp/stand type only)
				T2			30℃～160℃ (Only high temperature clamp/stand type)
Power supply					V8		Battery powered (3.6V Ni-MH) + 220VAC dual power supply
Length						CS5	5m*2（Standard）
						CS10	10m*2

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