

TCS6102

Portable Ultrasonic Flowmeter

GENERAL

TCS6102 Series Portable ultrasonic flowmeter is a state-of-the-art universal transit-time flowmeter incorporating the latest developments in digital processing, with clamp-on transducers for non-invasive liquid measurement. While principally designed for clean liquid applications the instrument is tolerant of liquids with a small quantity of air bubbles or suspended solids common in most industrial applications

FEATURES & APPLICATIONS

- Daily, monthly and early totalized flow
- Calorimeter calculation function
- Batch control function
- Flow velocity +/-0.01~+/-32 m/s
- High accuracy of +/-0.5% of reading
- Clamp-on sensors are simple to install, leading to lower installation and labor costs
- Clamp-on sensors mean no pipe cutting or process interruption and no plant shut-down
- Hygienic measurement, no risk of contamination, suitable for ultra clean liquids
- Measurement is independent of fluid conductivity meaning a wider applicability than magnetic meters
- Liquids Measured
- Water, sea water and other clean liquids with a content of
- suspended solids less than 10000ppm (mg / l) and without a high content of air bubbles.
- -20°C ~ +120°C, without ice in pipes at low temperature



TCS6102 Series

SPECIFICATION

Measuring Principle	Transit time difference
Pipe Size	TS2 Type : 15 mm ~ 100 mm TM1 Type : 50 mm ~ 1000 mm TL1 Type : 300 mm ~ 6000 mm
Pipe Material	Cast Iron, Stainless Steel, Ductile Iron PP, PVC, Aluminum, Asbestos Fiberglass... etc.
Liner Material	Tar Epoxy, Rubber, Mortar, Polypropylene, Polystyrene, Polystyrene, Polyester, Ebonite, Polyethylene, Teflon... etc.
Display	40 character, 2 Line (20*2) 1st line alphanumeric backlit LCD ,Velocity, Date, Time, Signal condition. Flowrate 5 digit with decimal point Totalizer 8 digit, Forward, Reverse & Net values. Flow Unit: M3, Liter, US Gallon, Imperial Gallon, Million Gallon, Cubic Feet, US Barrels, Imperial Barrels, Oil Barrel. Time Unit Second, Minute, Hour, Day.
Flow Velocity	0.01 ~ +/- 32 m/s
Measurement Accuracy	+/- 0.5% of reading (online calibration)
Repeatability	+/- 0.1%~+ 0.5% at +/- 0 ~ +/- 32 m/s Linearity +/- 0.5%
Basic accumulated cycle	500ms

Resolution	0.0001 m/s
Response Time	Less than 1 second
Keypad	16 (4*4)Key with tactile action
Communication	RS-232 & RS-485
convert, IP65; temp sensor, IP68 ; temp	-20 ~ +60 °C ; Humidity:90%RH max -20 ~ +120 °C ; Humidity:100%RH max
Data Logger	64 data include flowrate, totalizer, time
Built-in Battery	Ni-MH Battery
Enclosure:IP65 Temp	0 ~ +60 °C
Weight	500g
Power Requirement	>10Hours



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SENSOR SPECIFICATION

Fluid Temperature: $-20 \sim 120^{\circ}\text{C}$



TS2 Type Pipe Size : 15 ~ 100 Mm (1/2" ~ 4")



TM1 Type PIPE SIZE : 50 ~ 1000 mm (2" ~ 40")
Dimensions : 60 x 45 x 45mm



TL1 Type PIPE SIZE : 300 ~ 6000 mm (12" ~ 240")
Dimensions : 80 x 70 x 56mm



Special Cable



Data line



Adapter



Tape ruler



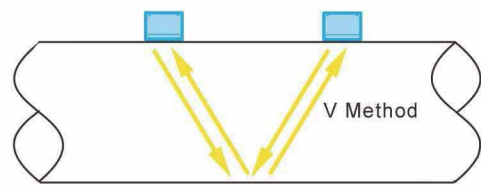
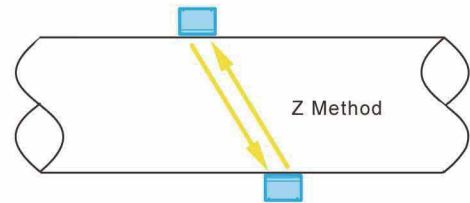
Stretcher



Carrying case

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INSTALLATION



CONDITIONS ON STRAIGHT PIPE

