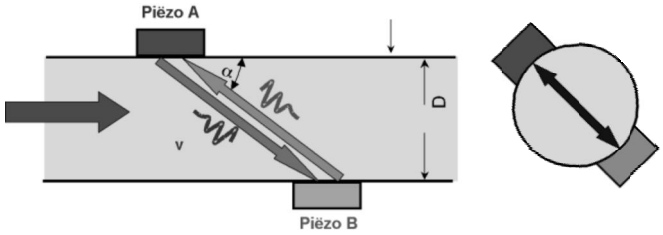
Ultrasonic Flow Meter Tapped Insertion Wall mounted

PARASONIC 153 UTW

Introduction

SBEMs PARASONIC series of ultrasonic flow meters use the transmit time differential method as the measurement principle to measure the flow of liquid in closed pipes. The transit-time technique uses a pair of transducers with each transducer sending and receiving coded ultrasonic signals through the fluid. At zero flow, both transducers receive the transmitted ultrasonic signals at the same time, i.e. without transit time delay When the fluid is flowing, signal transit-time in the downstream direction is shorter than in the upstream direction; the difference between these transit times is proportional to the flow velocity.



SBEMs PARASONIC series uses a flexible design concept to provide easy handling and optimum utilization.

Benefits/ Highlights

Flexible design Concept

Modular design offers better flexibility and ease of operation with high degrees of efficiency

Accurate, Cost-Effective Measurement

Advanced digital signal processing and superior sensor design offer economical and reliable flow measurement

No Process Interruption

PARASONIC hot tapped insertion sensors are capable of quick retro-fit at any point in the process allowing easy flow measurement and troubling shooting

Wide Application Range

PARASONIC series is suitable for a wide range of pipe sizes and materials including lined pipes for both conductive and non-conductive liquids

Parasonic 153 Wall mounted converter

- 85-230V AC / 24V DC
- Accuracy - 1%
- 2 Line Backlight LCD
- Quick access with 4x4 keyboard
- Relay, pulse and analog output
- Temperature (P100) and Analog Input for heat flow and pressure measurement
- Data transfer to PC using RS 485
- Compatible with insertion and clamp-on

Parasonic 153 Sensors

* For Cement pipes and smaller installation spaces please contact HO

Area of Expertise

- Potable Water
- Deionized / demineralized water
- Cooling and heating water
- Broad range of hydrocarbons
- Purified Water
- Waste Water
- Sewage
- Discharge Water

Specifications for Wall Mounted Converter

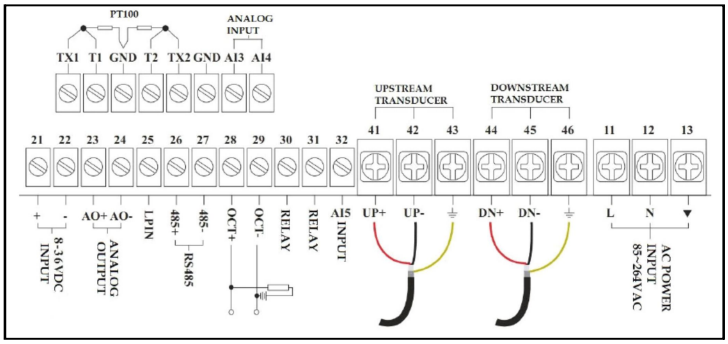
Power Supply	Std. - 85 - 230 VAC; Optional - 24 VDC
Measured Values	Volumetric Flow, Flow Velocity, Flow Direction, Speed of Sound, Quality of measured signal
Flow Velocity	0 - 32 m/s bi-directional
Accuracy	± 1 %*
Repeatability	0.3%
Sensors	Tapped Insertion
Display	2 Line backlight LCD
Keyboard	4 X 4 Numeric Keyboard membrane
Pipe Materials	Mild Steel/ Carbon Steel, Stainless Steel, Cast Iron, Ductile Iron
Outputs	4-20 mA/ 0-20 mA; Relay output; Open Collector Frequency/ Pulse output
Communication	Optional: RS 485/RS232 with MODBUS (ASCII or RTU) / HART
Inputs	Up to 3 Analog input channels and Up to 2 channel 3 Wire compensated Pt
Data Logging	Built-in or optional PC based
Protection	IP 65

Sensors

Type	Direct Insert (IS)
Pipe Diameter (mm)	DN 80 - DN 2000
Materials	Stainless Steel
Frequency	1 MHz
Hole Size	19 mm diameter
Length (mm)	186
Temperature	-40 to 160 ^{0}C
Protection	IP 68
Space required	> 550 mm
Cable	Standard Length 5 m with each transducer

* Accuracy depends on installation, pipe materials, size and lining. Consult HO for corroded or lined

Wiring diagram with standard RS 485 communication interface and one analog input channel



Ordering Code

PARASONIC 153 UTW [ ] [I] [S] [1] [2] [ ] [ ] [ ] [ ] [ ]

Power Supply

1 - Universal 85 - 264 VAC
2 - 24 VDC

Sensors

IS - Insertion Standard

Output

1 - Standard (4-20 mA + Relay + OCT)

Communication

0 - Not Applicable
1 - RS 232 MODBUS
2 - RS 485 MODBUS
3 - HART

Analog inputs

0 - None
1 - 1 channel 4-20 mA analog input
2 - 2 channels 4-20 mA analog input
3 - 3 channels 4-20 mA analog input

Pt 100 Inputs

0: None
1: 3 wire Pt-100 input - 2 channel

Data Logging

0 - None
1 - Yes

Sensor Cable

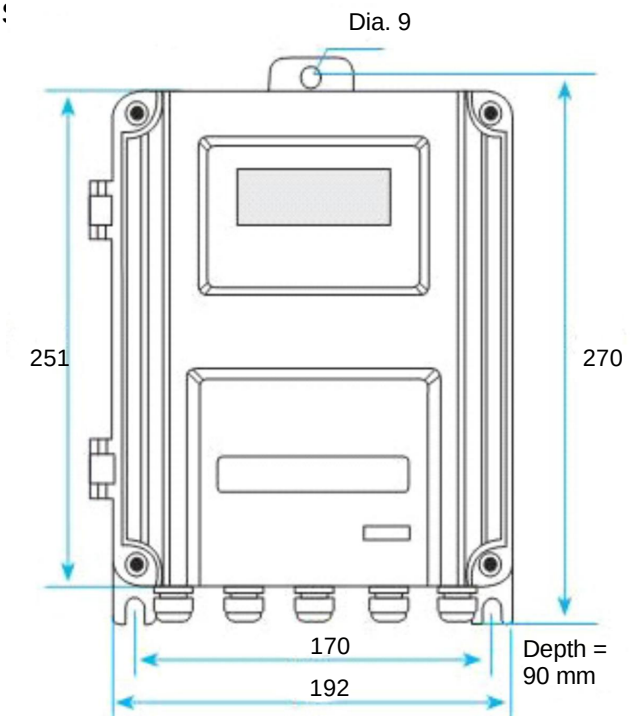
05 - 5 m x 2 (standard)
XX - As required

Example of Model Code Selection for Wall mounted Ultrasonic Flow Meter with Tapped Insertion Sensors:

Model Code: 153 UTW 1 IS 1 0 0 0 0 05

The above model code specifies that the Ultrasonic Flow Meter 153 UTW with wall mounted Indicator-converter operates on 85 to 264 VAC power supply, Sensors are standard insertion type, with standard output of 4-20 mA, Relay and pulse output, RS 485 Communication interface and with sensor cable of 5 m with each sensor/ transducer

Mechanical Dimensions



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