



# NAGMAN'S

## Hand-held Transit-Time Ultrasonic Flow meter

### Model – SONICNAG SERIES



## GENERAL

Nagman's sonicnag series is a hand-held, portable transit-time ultrasonic flow meter with clamp-on transducers for non-invasive liquid measurement of liquids with less than 1-2% bubbles/solids. Our microprocessor based, user friendly field programmable flow measurement technique creates no interruption of the process flow and has low installation costs.

## FEATURES

- 2 line LCD display with flow rate, totalizer & signal condition
- The flow meter is designed for high accuracy  $\pm 1.0\%$
- Compact, lightweight design
- Wide range of fluid velocities (0.5 ~  $\pm 12$  m/s)
- Ni-MH Battery life for up to 10 hours continuous operation
- Transducers for pipe sizes of 1/2" ~ 240" (15 to 6000mm)
- Transducers include magnetic device, which can install on Metal pipe without mounting belt
- Response time less than 1 second
- Flow meter will be calibrated from in-house NABL accredited LAB and traceable to NABL.



## SPECIFICATIONS

- |                              |  |                              |   |
|------------------------------|--|------------------------------|---|
| • <b>Measuring Principle</b> | : Transit time Ultrasonic  | • <b>Keypad</b>              | : 16 Key with tactile action                |
| • <b>Transducers</b>         | : 1/2" ~ 238" (15-6000 mm)   | • <b>Response Time</b>       | : Less than 1 second                        |
| • <b>Pipe Material</b>       | : Cast Iron, Stainless Steel, Ductile Iron, Copper, PVC, Aluminum, Asbestos, Fiberglass...etc. | • <b>Fluid velocity</b>      | : $\pm 32$ m/s                              |
| • <b>Display</b>             | : 4 Line LCD with backlight  | • <b>Resolution</b>          | : 0.0003 ft/s (0.0001 m/s)                  |
| • <b>Flow rate</b>           | : 5 digits with decimal point  | • <b>Ambient Temperature</b> | : -4~+122 °F (-20~+50 °C)                   |
| • <b>Totalizer</b>           | : 7 digits, Forward, Reverse & Net Values  | • <b>Ambient Humidity</b>    | : 90% RH or Less                            |
| • <b>Eng. Units</b>          | : m <sup>3</sup> , Liter, US Gallon, Cubic Feet  | • <b>Built-in battery</b>    | : Ni-MH Battery                             |
| • <b>Time Unit</b>           | : Second, Minute, Hour, Day  | • <b>Operation Time</b>      | : > 10 Hours                                |
| • <b>Other</b>               | : Velocity, Date, Time, Signal condition   | • <b>Data Logger</b>         | : flow rate, totalizer, time, date, etc...  |
| • <b>Accuracy</b>            | : $\pm 1\%$ of reading   | • <b>Communication</b>       | : RS-232                                    |
| • <b>Repeatability</b>       | : $\pm 0.2\%$ of reading   | • <b>Charger</b>             | : 90 ~ 260VAC 50/60 Hz, 8-12 Hours charging |
| • <b>Linearity</b>           | : $\pm 0.5\%$  | • <b>Output</b>              | : RS232                                     |
| • <b>Housing Material</b>    | : ABS  | • <b>Alarm</b>               | : High/Low with buzzer                      |
|                              |  | • <b>Power consumption</b>   | : Less than 2W                              |
|                              |  | • <b>Dimension(mm)</b>       | : 100 x 66 x 20                             |
|                              |  | • <b>Weight</b>              | : 5144(g) with Batteries                    |
|                              |  | • <b>Enclosure Converter</b> | : IP65                                      |
|                              |  | • <b>Sensor</b>              | : IP65, IP68 (optional)                     |

## TRANSDUCERS

### STANDARD TRANSDUCER

Fluid Temperature: 0~100 °C

Model	S2H (Small Size)	M2H (Medium Size)	L2 (Large Size)
Pipe Size	1/2"-4" (DN15-100mm)	2"-40" (DN50-1000mm)	12"-240" (DN300-6000mm)



### HIGH TEMPERATURE TRANSDUCER (Optional)

Fluid Temperature: 0~160 °C

Model	Small Size	Medium Size	Large Size
Pipe Size	1/2"-4" (DN15-100mm)	2"-28" (DN50-700mm)	12"-240" (DN300-6000mm)



### STANDARD-MOUNTING TRACK TRANSDUCER (Optional)

Fluid Temperature: 0~100 °C

Model	Small Size	Medium Size	Large Size
Pipe Size	1/2"-4" (DN15-100mm)	2"-12" (DN50-300mm)	12"-28" (DN300-700mm)



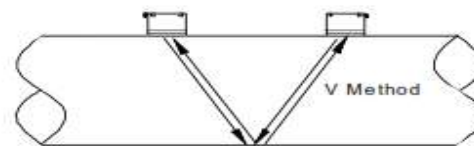
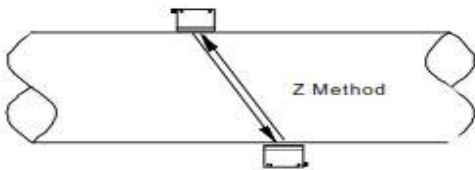
### HIGH TEMPERATURE MOUNTING TRACK TRANSDUCER (Optional)

Fluid Temperature: 0~160 °C

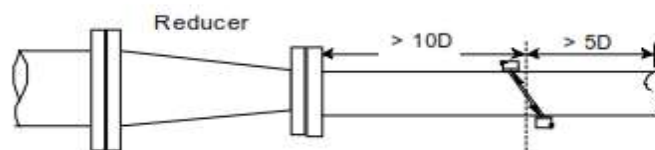
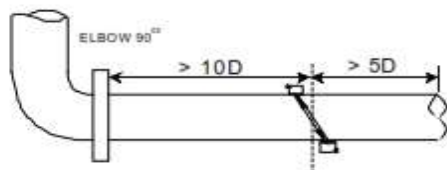
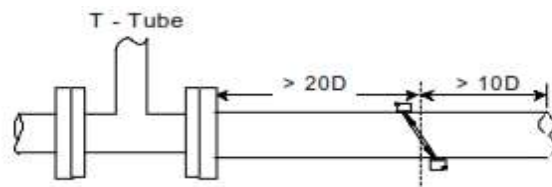
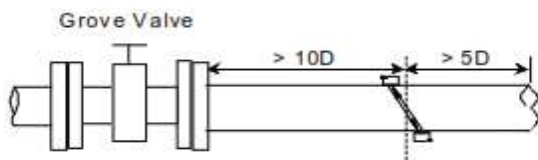
Model	MHS (Small Size)	MHL (Medium Size)
Pipe Size	1/2"-4" (DN15-100mm)	2"-12" (DN50-300mm)



## INSTALLATION



## STRAIGHT RUN PIPING REQUIREMENT



**PRODUCT PACKAGING**

**Ultrasonic  
flowmeter host**



**External  
clamp sensor**



**Couplant**



**Connection cable  
( Downstream )**



**Charger**



**Tape**



**Connection cable  
( Upstream )**



**RS232 cable**



**PACKED IN ALUMINUM CASES, EASY TO CARRY.**

**You can go anywhere  
you want!**

<b>TYPE OF FLUID</b>
<b>LINE SIZE</b>
<b>PROCESS PRESSURE &amp; TEMPERATURE</b>
<b>TYPE OF ELECTRONICS</b>
<b>PIPE MATERIAL</b>

Please provide the name of your fluid, including operating density and viscosity

Please provide the pipe size and sensor connection type.

We will calibrate your flow meter as close to your operating conditions as possible

Please specify output and installation type ((compact, wall mount, panel mount, etc.)

Please provide the name of your pipe material

**SONIC NAG SERIES**

EXAMPLE: SONICNAG-S2H-C1-P

SONIC	**	**	**	**	DESCRIPTION
Handheld HL Basic Model, Include: * Sonicnag Handheld * 1 set * Power Adaptor (90-264 VAC, 50/60Hz) * 1 set * RS232 communication cable * 1 set * Waterproof Carrying Case	Nag				Handheld Flow meter
No transducers required		NTS			Transducers
Std Small clamp sensor, ½" ~ 4" (15 ~ 100 mm)		S2H			
Std Middle clamp sensor, 2" ~ 24" (50 ~ 700 mm)		M2H			
Std Large clamp sensor, 12" ~ 240" (300 ~ 6000 mm)		L2			
No cable needed		NC			Signal Cable Length
5m length, 2 Cables			C1		
10m length, 2 Cables(Optional)			C2		
IP68 Protection for transducers				68	P



Nagman Flow-Level Systems and Solutions LLP,  
No.168/7, Chennai-Bangalore Highway,  
Chembarambakkam, Chennai -600123.  
Phone: +91-44-66777052/53/54/55  
Mobile: +91-7845955609/7845955360  
Email : [sales@nagmanflow.com](mailto:sales@nagmanflow.com) Web: [www.nagmanflow.com](http://www.nagmanflow.com)

