

AMR

CE

FCRI  
Model  
Approval



# Jalsonic

Battery Powered

Ultrasonic Water Meter



Battery-powered ultrasonic water meters JalSonic is intended for industrial and commercial applications in water supply systems where they provide for measurement and data storage on instantaneous flow rates and aggregate water consumption.

## Features

- Transit time ultrasonic technology for Accuracy and ultra reliable metering
- No moving parts
- Plug in replacement to existing bulk water meters
- Unique ultrasonic design doesn't measure air and hence no incorrect customer billing
- Rugged mechanical design – Submersible (IP68)
- Battery powered – 6 years life expectancy
- Measurement under Submerged conditions
- Working pressure – 16 bar
- Turn down ratio – better than 1:300
- Liquid Working temperature – Water 50°C
- Bi-directional flow measurement
- AMR – Remote flow monitoring through GSM / RF
- EMI/RFI Protection
- Ambient operational temperature : -25°C to 55°C
- Programmable dual line LCD display
- In built data logger for tracking the history
- M→ Negative Sensitivity Index to Air hence Accuracy Billy to corner

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## Applications

Municipal Distribution Networks, Irrigation and Industrial Applications

## Meter Sizes

DN 50 – DN 65 – DN 80 – DN 100 – DN 150  
DN 200 – DN250 – DN 300 – DN 400 - DN 500

## Technical Specifications

Maximum Working Pressure	16 kg/cm <sup>2</sup>
Liquid Temperature	0 to 60° C
Accurecy Class	ISO 4064 rev. 2005
Configuration	In built – Display is part of the unit
Power Source	2D size Li-battery with 6 year's life time (with GSM)
Environmental Protection	IP68, Ambient operation temperature -25° C to +60° C
Display Units	M <sup>3</sup> / Hr,CPM,GPM
Output (optional)	4 Cowma (2 Wire) Pune

## Construction

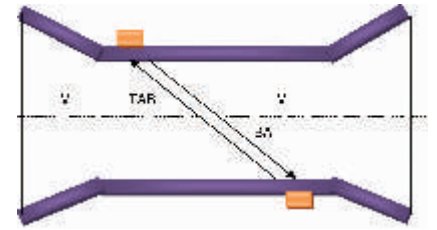
50-80-100mm – 55316L

100-500mm – Cast iron with food grade epoxy lining



## Mechanical Dimensions

Sr.No.	Jalsonic Size (MM)	Length(L) (MM)	Height(H) (MM)	PCD (MM)	B (MM)
1	50 Threaded	204	170	N.A.	N.A.
	50 Flanged	204	165	125	160
2	80	225	200	160	194
3	100	250	220	180	215
4	150	300	285	240	279
5	200	350	340	295	335
6	250	450	395	350	390
7	300	500	445	400	440



## Measuring Principle

The Ultrasonic Flow Meters are noted for their high accuracy and long-terms stability over wide range of flow measurement.

Hence we moulded this technology by revolutionary in-house development in Electronic circuits and sensors to have super low power consumption.

Today JALSONIC™ do not require any external power source, have no moving parts and offer very low pressure loss.

Mechanical dimensions are exactly similar to Woltman / Helix bulk meters so that retro fitting is easily possible.

JALSONIC™ gives you instantaneous flow rate, flow totalisation, computer connectivity, data logging, AMR

(Remote data Monitoring through GSM) with battery back up of 2 to 5 years.

These unique features are primarily intended for industrial and commercial applications in water supply and distribution systems and hence JALSONIC™ is 100% tamper proof, accurate and modern flow meter available for Irrigation and Municipal applications.

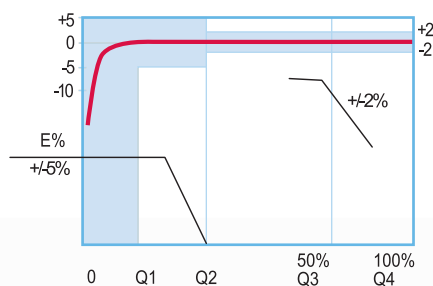
## Performance Specifications

Flow rate (m3 /hr)	Meter size			
	DN50-2" 2 Threaded	DN65-2.5"	DN80-3"	DN100-4"
Maximum peak flow (for short time)	75	90	120	200
Q4	65	80	100	150
Q3	40	50	63	100
Q2	0.125	0.150	0.200	0.320
Q1	0.060	0.070	0.080	0.100
Starting flow	0.015	0.015	0.015	0.015

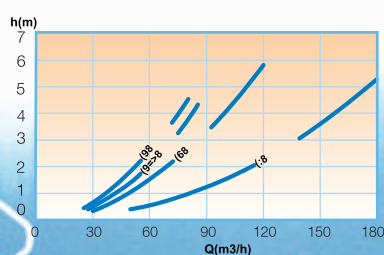
## Meter Performance as per ISO 4064 (rev. 2005)

Flow rate (m3/h)	Meter Size		
	DN50-2"	DN80-3"	DN100-4"
Q4	50	80	125
Q3	40	63	100
Q2	0.125	0.200	0.320
Q1	0.080	0.125	0.200
R10-Q3/Q1	500	500	500

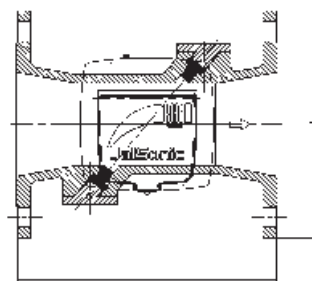
## Accuracy Curve



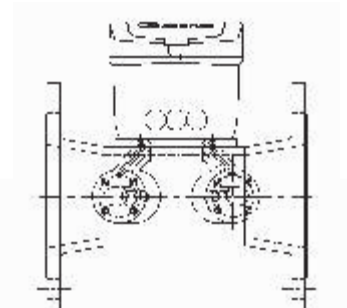
## Head Loss Curve



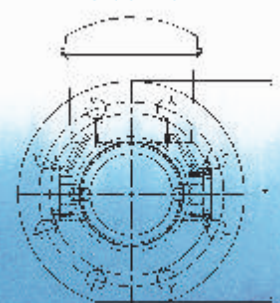
## Top View



## Front View

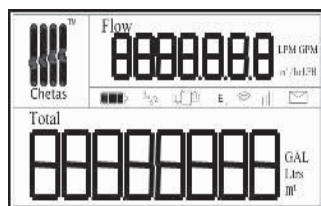


## Side View





## Primary Digit Display



Symbol	Meaning
	Battery Full- 3.25 VDC to 3.6 VDC
	Battery Caution - 3 VDC to 3.25 VDC
	Battery Critical- 2.75 VDC to 3 VDC
	Flashing When Pipe Empty
	Flashing when messenger transmitting condition.
	On when GSM AMR Firmware Loaded & presence Of GSM Network.
	On at leak flow
	On when RF AMR Firmware Loaded
E	Flashing at every Sec -Heart beat - to acknowledge LIVE condition.
Total 1	Sum of Reverse & Forward Cumulative Flow
Total 2	Forward Cumulative flow
Total 3	Reverse Cumulative Flow
Total 4	Differential cumulative Flow Of Forward & reverse Totaliser.



Note :  
On account of our constant process to improve & enhance product performance, specifications are subject to change without notice.



Designed & Manufactured By

**Chetas Control Systems  
Private Limited**

ISO 9001-2008

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