

DATA SHEET

Ultrasonic AMR Water Meter

➤ **EVERY DROP MEASURED, EVERY FLOW NOTED. SAY GOODBYE TO BILLING SURPRISES; EMBRACE PURE PRECISION.**

Notable Features

- Operating Principle: Ultrasonic
- Automatic Meter Reading (AMR) & Automatic Metering Infrastructure (AMI) Enabled.
- Same Accuracy throughout the lifespan.
- Real-time information.
- **Nb-IoT**-based network & works on Non-IP Data Delivery (NIDD) connectivity.
- The same flow meter should be Compatible with Pipe sizes 15 to 25 NB.
- Support IR configurator for changing default settings.
- Tamper Notification within 15 sec(max)
- Internal antenna
- PAN India data connectivity
- Enabled Reverse flow detection. Totalizer will not be affected by Reverse flow

Water management has always been at the forefront of infrastructural advancements. Introducing the Transit-Time Ultrasonic AMR Water Meter - a modern marvel in water management. This meter heralds a new age of precision and efficiency, redefining the way water flow is measured in myriad applications. As the name suggests, this device utilizes ultrasonic waves to measure the volume of water flowing through a pipeline, ensuring an efficient and precise reading.

Core Mechanism

At the heart of this device (*Ultrasonic AMR Meter, Ultrasonic Water Meter, or Domestic Water Meter*) is the **transit-time difference** method. Picture two ultrasonic sensors stationed diagonally across from each other within a pipeline. In static conditions, ultrasonic waves journeying between these sensors take an identical amount of time, regardless of direction.

However, introduce flowing water to this equation and witness a subtle yet significant shift. The flowing water aids the downstream-traveling wave, making its journey swifter, while posing resistance to its upstream counterpart, causing a minor delay. This difference in transit times provides the crux for calculating water flow velocity and, in turn, its volume.

Core Benefits

- **Unparalleled Precision:** By sidestepping the pitfalls of impurities or particles in water, it achieves an unmatched accuracy in readings.
- **No Moving Parts:** This design ensures less wear and tear, translating to a longer operational life.
- **Instantaneous Insight:** AMR capabilities facilitate real-time data relay, keeping you abreast of water consumption patterns.
- No mechanical or Tact switch to increase the number of key operations.
- Wide coverage and deep penetration.
- Low Power Consumption.
- Highly Scalable & Secure. Can support more than billions of flowmeters on the same network.
- **Durability Redefined:** No requirement to change the battery for at least 5 years.
- **Environmentally Friendly:** No use of chemicals or external energy sources, making it a green choice for water metering.

Images



Dashboard Images



Contact us for more information.

Accumax Instruments Pvt. Ltd.

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TECHNICAL SPECIFICATIONS

Operating Principle	Ultrasonic (Transit Time)
Automatic Meter Reading (AMR)	<input checked="" type="checkbox"/>
Automatic Metering Infrastructure (AMI)	<input checked="" type="checkbox"/>
Suitable for Line size	DN15-DN25
Medium	Liquid (Water)
Flow Range	12.69 LPH to 5000 LPH, or 0.012 m ³ /h to 5 m ³ /h
Accuracy Class	Class 2
Repeatability	±0.1%
Flow Direction	Forward & Reverse (Reverse flow indicated with (!) sign in symbols) (Reverse flow will not add in Totalizer)
Reverse Flow Detection	<input checked="" type="checkbox"/>
Display Unit	
Display	Monochrome Segment LCD (8 Digits displayed)
LCD On-Time	24*7
Maximum Totalizer Capacity	9999999.999 m ³
Data History	Can be accessed in two ways: 365 Days for daily record of data, latest 30 days of detailed hourly data records
Network and Connectivity	
Network	NB-IoT Based
Network Provider	Reliance JIO
Connectivity (PAN India Connectivity)	Non-IP Data Delivery (NIDD) Connectivity
Internal Antenna	<input checked="" type="checkbox"/>
Cloud Application	
Dashboard	Compatible on PC/ Mobile Phone/ iPad
Reports	Real-Time Data Access
Data Sending Frequency	Compressed Hourly Data, Sent Once a Day (For Data Analysis and Tracking)
Manually Send Data From Meter To Server	<input checked="" type="checkbox"/>
IR Configurator	<input checked="" type="checkbox"/>

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TECHNICAL SPECIFICATIONS

Temper Notification	Within 15 s
Menu scrolling through Magnetic switch	Date, Time, Totalizer, Flow, Meter Sr. No., Cal. Factor, Battery voltage
Subscription	Yearly via Payment Gateways
Power Supply	
Battery Ratings	3.7 V, 19AH Non Rechargeable
Battery Life	Minimum 5 years, when constantly operated
Power Consumption	<70 μ W
Mechanical Body	
Enclosure	ABS Plastic
Pipe	Brass Material
Protection	IP68
Metrological Specifications	
Class	B
Electromagnetic Class	E1
Maximum Admissible Working Pressure	MAP16
Temperature	T50/T90
Measuring Range (Q_3/Q_1)	R315
Permanent Flow Rate, Q_3	4.0 m ³ /h
Pressure Loss	<40 kPa
Certifications/ Compliances and Warranty	
Warranty	1 Year
Compliance	 
Certifications	

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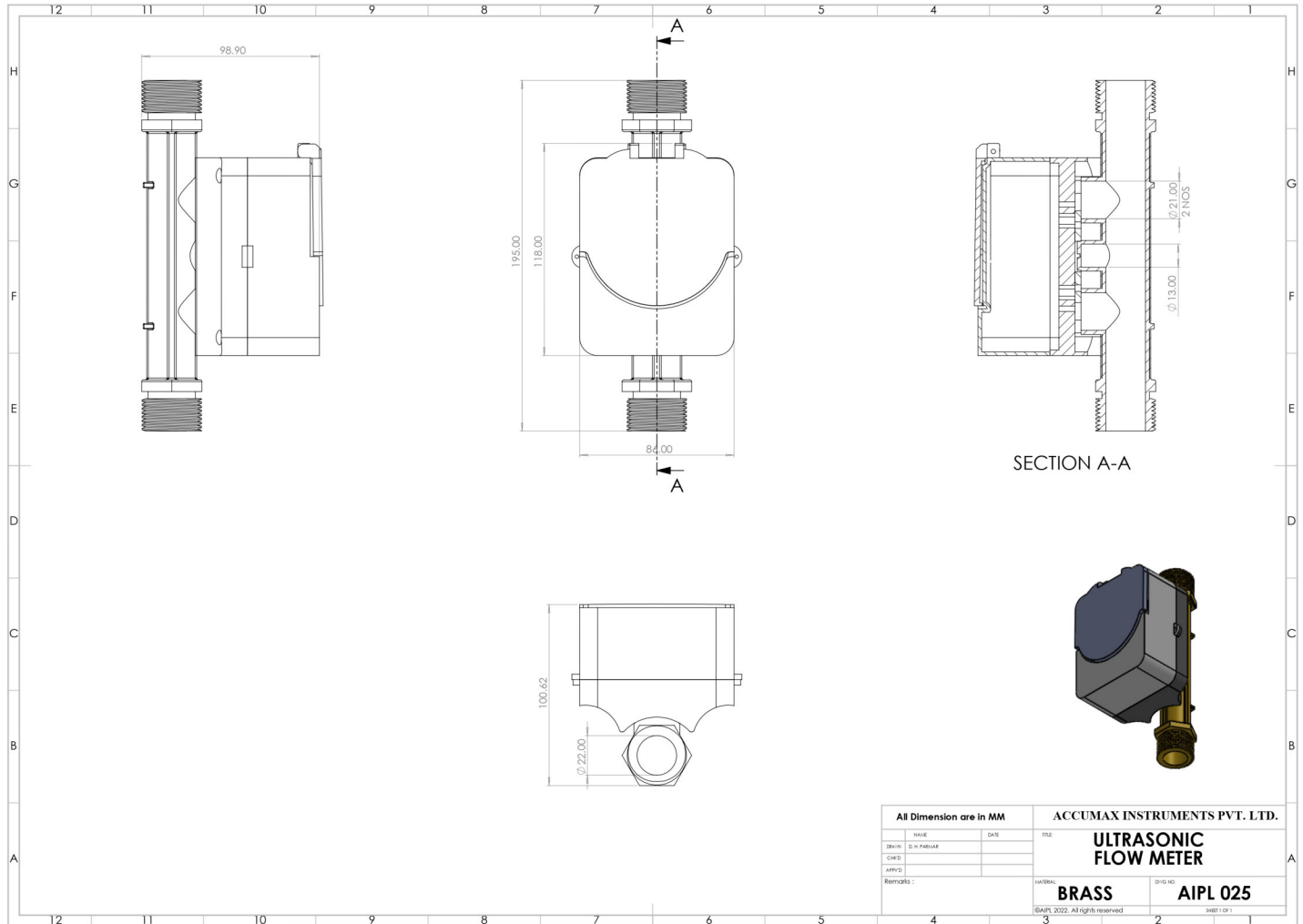
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Dimensional Drawing



All Dimension are in MM		ACCUMAX INSTRUMENTS PVT. LTD.	
NAME	DATE	TITLE	
DESIGN		ULTRASONIC FLOW METER	
CHECK			
APPROVE			
Remarks		MATERIAL	DWG NO.
		BRASS	AIPL 025
		<small>©APRIL 2022 All rights reserved</small>	<small>SHEET 01 OF 1</small>

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