Arrowmech®
Instruments & Automation
The View On Reliability

ULTRASONIC FLOW METER

MODEL APUFM-100

BATTERY OPERATED · PORTABLE · CLAMP-ON

FIG. 01 — APUFM-100, HANDHELD TRANSMITTER

NO PIPE CUTTING · NO PRESSURE DROP

PIPE RANGE	ACCURACY	PROTECTION	DISPLAY	OPERATION
DN 25 – DN 2000	**±1% – ±2%**	**IP 67 / IP 68**	**2 × 20 backlit LCD**	**Battery operated**

ISO 9001 CERTIFIED · CE · MADE IN INDIA

The View On Reliability

ARROWMECH INSTRUMENTS & AUTOMATION

SALES@ARROWMECH.COM · +91 98594 10410

01 INTRODUCTION

The Arrowmech APUFM-100 is a battery-operated, handheld transit-time ultrasonic flow meter. The same clamp-on measurement as the wall-mounted AUFM-100 — a sensor pair on the outside of the pipe, no cutting and no pressure drop — in a portable kit that sets up in minutes. It is the right tool for flow surveys, energy audits, pump performance checks, temporary metering and on-site verification of installed flow meters.

02 FEATURES

- **Measurement accuracy ±1% – ±2%**
- **IP 67 display · IP 68 sensors**
- **Wide measurement range** — Pipe sizes DN 25 to DN 2000.
- **Easy installation** — Clamp-on sensors — no need to cut the pipe.
- **Fully portable** — Handheld transmitter with battery operation for field work.
- **Three sensor sizes** — Small, medium and large pairs cover the full pipe range.

03 GENERAL SPECIFICATION

PARAMETER	SPECIFICATION
Principle	Transit time
Accuracy	±1% – ±2%
Display	2 × 20 backlit LCD with keypad
Sensor cable	5 m twisted-pair shielded cable
Pipe diameter	DN 25 to DN 2000 (25 – 2000 mm)
Process temperature	−30 °C to +160 °C (sensor dependent)
Ambient temperature	−20 °C to 60 °C
Charging supply	230 V AC or 24 V DC
Protection class	Display IP 67 · Sensors IP 68

04 SENSOR SPECIFICATION — CLAMP-ON PAIRS

SENSOR	MEASUREMENT RANGE	TEMPERATURE OPTIONS	DIMENSIONS (mm)
Small size	DN 25 – DN 80	−30 °C to +90 °C (standard) · −30 °C to +160 °C (high-temp)	45 × 25 × 32
Medium size	DN 50 – DN 700	−30 °C to +90 °C (standard) · −30 °C to +160 °C (high-temp)	64 × 39 × 44
Large size	DN 300 – DN 2000	−30 °C to +90 °C (standard) · −30 °C to +160 °C (high-temp)	97 × 54 × 53

05 SENSOR MOUNTING

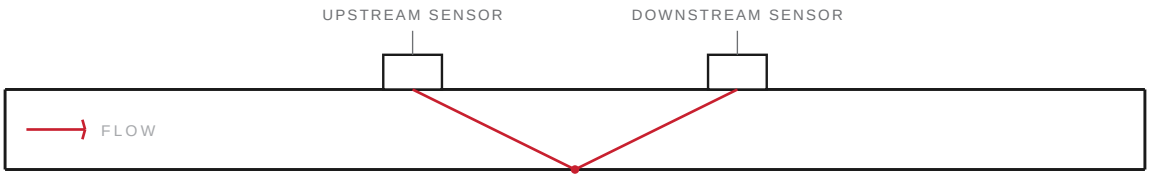

FIG. 02 — V-METHOD MOUNTING: BOTH SENSORS ON TOP OF THE PIPE, SINGLE REFLECTED PATH

The V-method is the standard mounting: both sensors sit on top of the pipe and the signal makes a single reflection off the bottom wall, giving a long measuring path and easy alignment. For very large pipes or fluids with high attenuation, the Z-method — sensors on opposite sides of the pipe with a direct diagonal path — can be used instead.

06 KIT CONTENTS

FIG. 03 — APUFM-100, HANDHELD TRANSMITTER
Battery-operated unit with backlit LCD and keypad.

FIG. 04 — CLAMP-ON SENSOR PAIR
Strapped to the pipe exterior, connected by shielded cable.

07 ORDERING CODE

EXAMPLE — FLOW METER CODE:

APUFM-100 - S1 - T1

SENSOR SIZE	
S1	Small — DN 25 to DN 80
S2	Medium — DN 50 to DN 700
S3	Large — DN 300 to DN 2000

SENSOR TEMPERATURE		
T1	−30 °C to +90 °C	(s)
T2	−30 °C to +160 °C	

(s) = STANDARD SELECTION · SENSOR SIZE IS SELECTED PER PIPE DIAMETER

+91 98594 10410 · sales@arrowmech.com · www.arrowmech.com
Office: 910, International Finance Center (IFC), VIP Road, Vesu, Surat, Gujarat – 395007
Factory: W/41, Laxminarayan Industrial Estate, Opp. Daksheshwar Mahadev, BRC Compound, Udhna, Surat, Gujarat – 394210