

## ELECTROMAGNETIC FLOW METER



Available Size : 0.5 / 1 / 1.5 / 2 / 2.5 / 3 / 4 / 6 / 8 Inch

## INTRODUCTION

UT-2003 Series Electromagnetic Flow Meter can be used to Accurately Measure the Flow Rate of Liquids which is Electrical Conducting Caustics, and mixed with Liquid and Solids. Electromagnetic flow meter follows the Faraday's Law of Electromagnetic Induction. When the Conductive Liquids flow through the flow meter, an induce electromagnetic force will be produced in the conductor and this induce electromotive force is directly proportional to the velocity of conductive liquid, magnetic flux density and width of the conductor (Inside diameter) of flow meter. Such induce electromotive force is detected by a pair of electrodes on the tube wall of the flow meter, and the rate of flow can be calculated by mathematical operation.

## FEATURE

- ✦ Industry Specific Design - Suitable for Water & Waste Water Industries
- ✦ Wide Range Available from 15 mm to 300 mm (0.5 Inch to 12 Inch)
- ✦ There is no pressure head loss in this type of flow meter other than that of the length of straight pipe which the meter occupies.
- ✦ Flow Meters are practically unaffected by variation in velocity, pressure & temperature.
- ✦ Stable Performance with 4 - 20 mA DC Re-Transmission and Highly Communicative RS485 Modbus Communication.
- ✦ 16x2 Digit brighter LCD Display for Flow Rate and Total Flow Measurement.

## APPLICATION

- ✦ Water & Waste Water Treatment Plant
- ✦ Liquid Flow Measurement
- ✦ Refinery & Petroleum Industry
- ✦ Paper & Pulp Manufacturing Industry
- ✦ Water distribution & Collection
- ✦ Water Irrigation System
- ✦ Sewage Treatment Plant
- ✦ Water Reclamation

Line Size	Flow Rate	Line Size	Flow Rate	Line Size	Flow Rate
25 NB	0.2 - 10 m <sup>3</sup> /Hr	65 NB	4.0 - 70 m <sup>3</sup> /Hr	125 NB	13.0 - 260 m <sup>3</sup> /Hr
40 NB	1.0 - 25 m <sup>3</sup> /Hr	80 NB	6.0 - 100 m <sup>3</sup> /Hr	150 NB	20.0 - 290 m <sup>3</sup> /Hr
50 NB	2.0 - 40 m <sup>3</sup> /Hr	100 NB	7.0 - 170 m <sup>3</sup> /Hr	200 NB	30.0 - 670 m <sup>3</sup> /Hr

## ELECTROMAGNETIC FLOW METER

## TECHNICAL SPECIFICATION

FLOW MEDIA	Liquids (Conductive)
CONDUCTIVITY	> 5 $\mu\text{S}/\text{cm}$
VISCOCITY	200 cp max
LINE SIZE	15 NB TO 200 NB
OUTPUT SIGNAL	4 - 20 mA DC
	RS485 Communication
	Pulse (PNP / NPN)
DISPLAY	16 X 2 LCD - 4 Digit for Flow Rate & 8 Digit for Totalized Flow
ENGINEERING UNIT	User Programmable (LPM, LPH, $\text{m}^3/\text{Hr.}$ )
CALIBRATION	As per Requirement (Factory Calibrated)
ACCURACY	+/- 0.5 % of FS
LINEARITY	+/- 0.5 % of FS
OPERATING TEMPERATURE	0 - 60 Degree C
PROCESS PRESSURE	10 kg / $\text{cm}^2$ (Higher on Demand)
MOC	Lining - PTFE
	Flange - MS
	Electrode - SS316
	Coil Housing - MS
POWER SUPPLY	90 - 230 V AC
	24 V DC
POWER CONSUMPTION	< 10 VA
ISOLATION	1.4 KV Between Input, Output & Power Supply
RESPONSE TIME	< 1 SEC.
MOUNTING	In - Line Horizontal As Per Standard (Vertical on Request)

## ORDERING INFORMATION :

UT-2003		1	2	4
Line Size		Display		Output
25 DN	1	Built In	B	NONE
40 DN	1.5	Remote	R	4 - 20 mA DC
50 DN	2			RS485 Comm
65 DN	2.5			
80 DN	3			
100 DN	4			