







**Reference Flow Meter - CWPRS** 

www.saitechflowinstru.com

Our SAITECHFLOW Make Flow Meters are known as MICROMAG.

Designed precisely to measure myriad range of liquid media even with low conductivities and slurries very accurately.

As it is based on "Faraday's Law of Electro-magnetic Induction" its always gives accurate readings irrespective of its impurities, Viscosity, Density, Temperature or pressure etc.

MICROMAG has diverse range of Models based on different MOC for inner/ outer material, Electrodes and linings and enclosures with latest features such as RS 485 compatibility, GSM connectivity to serve numerous applications.

#### WORKING PRINCIPLE:

Our MICROMAG Flow Meter is based on famous principle of Faraday's Law of Electro-magnetic Induction which states that there is the production of an electromotive force (i.e., voltage) across an electrical conductor (i.e. electrodes) in a changing magnetic field whenever a conductor (conductive liquid in this case) moving through it.

$$E = (B*v*D)$$

E = electromotive force (voltage induced)

B = Magnetic Flux Density

V= Mean Velocity of the Media

D = Distance between the two Electrodes

Therefore, as per above principle whenever a conductive liquid passes through fixed size of Flow Meter; wherein distance between the 2 electrodes is also constant it yields the induced voltage which is entirely proportional to velocity of the Flowing Conductive media which in turn can be calibrated as volumetric "Flow Rate" for provided cross-sectional area of the flow tube.

Our flow meters are highly recommended for:

- Water Distribution/ RO Plant, Waste Water/ Sewage Water, Food & Drug Industry, ETP, STP Sugar,
  - Milk/ Dairy Industries, Chemical, Pharma Factories, Power Industries, Pulp & Paper

### Advantages:

M3/Hr

21.2

- It can measure highly corrosive liquids,
- It is unaffected by impurities hence best used for slurries in sugar industries, pulp in paper industries,
- It has no obstructive parts hence can handle gravity flow very well.

84.8

54.2

- Based on DC pulse magnetization technique, hence very high zero stability
- It Can be very large hore sizes also

It can be very large bore sizes also,																	
Flow Meter Selection																	
Cr	Criteria		PTFE/PFA Lining			Rubber Lining			Without Lining (SS 304 / SS 316 Tube)			HDPE/PVC			Insertion Type		
Service Media		Water, Chemical, STP, ETP, Hot Water, Juice, Molasses, Milk Corrosive liquid			Normal / Raw / Row Water, Diluted chemical / sewage, Molasses			Water, Chemical , STP, ETP, Hot Water, Juice, Molasses, Milk			Water, Chemical, STP, ETP			Water, Chemical , STP, ETP, Raw Water, Sewage, Molasses			
Temperature			0 - 150 Deg - PTFE 0 - 200 Deg - PFA			0 <b>-</b> 70 Deg			0 <b>-</b> 150g			0 <b>-</b> 50 Deg			0 - 150 Deg		
Pressure			0 - 25 KG/Cm <sup>2</sup>			0 - 25 KG/Cm <sup>2</sup>			0 - 25 KG/Cm <sup>2</sup>			0 - 10 KG/Cm <sup>2</sup>			0 - 25 KG/Cm <sup>2</sup>		
Line size		DN 10 - DN 300			DN 10 - DN 1500			DN 10 - DN 1500			DN 25 - DN 150			DN 300 - DN 2000			
Electrodes		Hastelloy / SS 316			Hastelloy / SS 316			Hastelloy / SS 316			Hastelloy / SS 316			Hastelloy / SS 316			
Flanges (Process Conn.)		ANSI/DIN			ANSI/DIN			ANSI/DIN			ANSI/DIN/BS/NPT/ SMS/Triclover End			NA			
Di	Display		Integral/Remote/Panel			Integral/Remote/Panel			Integral/Remote/Panel			Remote			Remote		
Out Put		4-20, Rs485, RS232, Relay, GSM			4-20, Rs485, RS232, Relay, GSM			4-20, Rs485, RS232, Relay, GSM			4-20, RS485, RS232, Relay, GSM			4-20, Rs485, RS232, Relay, GSM			
	Flow Range																
DN	15	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600
Inch	1/2	1	11/4	11/2	2	2.5	3	4	5	6	8	10	12	14	16	20	26
M³/Hr Min	0.1	0.5	0.8	1.3	2.1	3.5	5.4	8.4	13.2	19	33.9	53	76.3	103.9	135.8	212.1	305.4

143.3 217.1 339.2 530.1 763.1 1357

3053 3986

2120

5852 6785

4919

"Nominal Dia (mm) : 15 to 400 NB

"Material of Construction: MS, SS 304, SS 316 & SS 316L

"Electrode : SS 316, SS 316L, Hastelloy 'C', Material & Tantalum, Titanium etc.

"Process Pressure : 25 kg/cm2 to Max. 40 kg/cm2, /

/ Process Temperature Max. 150 Deg. C

"Flow Tube Material : SS304, SS 316, SS 316L

"End Connection : Flange/Wafer/ SMS/ TRI-CLOVER etc.

: 230 VAC, 50 Hz & 24 VDC

"Accuracy :  $\pm 0.5\%$  FSD.

"Power Supply

"Display : LED/ LCD// Integral /Remote

"Display Unit : Standard Unit in M3/Hr, LPH, LPM, LPS etc.

Lrii, Erii, Ero ett.

"Transmitter Output : 4 - 20 mA/ RS 485 MODBUS

"Installation : Inline Flange Type or Insertion type also available

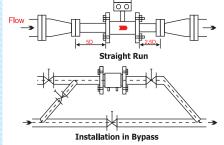
### **Mechanical Water Meter**

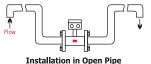




Water Meter Screw Typed & Flanged Typed. Standrerd Model: Class-A Hot Class-A, Multi Jet Class-B. Line Size:15mm to 50mm Screw Typed. Line size: 1.5mm to 300mm Flanged Typed

### **Installation Guidelines**







# **Insertion Type**

Meter Size DN 300 To DN 2000

Temperature 0-150°C

Electrodes Hastelloy / SS316

Flow Meter Body SS 304 / SS 316

Input supply 110 To 230 V Ac.50 HZ

Pulsed DC

Power Supply of

Field Coils

Min. Conductivit 5µs/Cm

## **Digital Rotameter**

### Specifications:

- : Accuracy +/- 1.5% of FSR.
- : Range ability 10:1
- : Repeatability +/- 0.25% of FSR
- : Temperature Rating -50 to 320 °C.
- : Pressure Rating 280 kg/cm2
- : Flow Direction Bottom to Top
- : End connection Flanged

#### **PD Meter**

#### **Key Features**

- : Presentable Batch Control
- : 4-20 mA output
- : Relay output for pump/motor and digital valve control
- : Self diagnostic
- : Tamper-Proof and sealed calibration facility
- : Can be integrated with PLCs/SCADA applications
- : Explosion proof enclosures of hazardous areas application, certified by CMRI for class IIA & IIB applications
- : Power : 230 V/110 VAC supply, 12/24 DC
- supply with battery backup
- : Least count : 0.001 to 1.0 or as per customer specification

### **Turbine Flow Meter**

### Specifications:

- : Line Size: 15 NB to 150 NB
  - : Media: Liquids (clear)
    - : Power Supply: 24 VDC
    - : Output: 4-20 mA / Pulse 30 mA peak to peak
- : Accuracy: +/- 1% of F.S.











#### Online Data Monitoring and Data Management System Software

The basic functional capabilities of such as,

- The system capable of collecting data on real time basis without any human intervention.
- The data generation, data pick up, data transmission; data integration at server end automatically
- The submitted data automatically transfer to the Boards, SPCBs/PCCs and CPCB for immediate corrective action
- Raw data automatically transmitted simultaneously to SPCBs /PCCs and CPCB
- Data transmission through different media like GPS, CDMA, Normal phone line, Data cards, Broadband, 3G .etc.
- Data Storage for next five years.
- Data logging and uploading as per government (MPCB / CPCB) norms
- Comparison of parameters of different locations in user selectable time formats i.e. in graphical and tabular formats compatible to MS Excel, MS CSV, \*.image format .jpg .png etc.
- Online monitoring of data from the flow meter and pH meter
- Cloud-based software online data monitoring software
- Easily integrated third party devices

# **OUR CLIENTS**





















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