



**VATTURKAR  
INDUSTRIAL**



Authorised Distributor



Managing Technology & Services

**MTS ENGINEERS PVT. LTD.**

B/408, Wall Street-II, Opp. Orient Club, Near Gujarat College,  
Ellisbridge, Ahmedabad-380 006, Gujarat, INDIA.  
T : +91 79 2640 0063 / 3016 0063 • F : +91 79 4004 7430  
www.mtsengrs.com



Digital Flow Meter  
Digital Conductivity Meter

## About us

**VATTURKAR INDUSTRIAL** is the leading manufacturer of digital Flow & Conductivity meters in India for last 12 years. Our meters are user friendly. Operator can easily install & recalibrate the meter on-line. Our meters are proven one in harsh Industrial environment and are service free unit based on state-of-the-art advance Microprocessor Technology.

We manufacture both Field Mounted as well as Panel Mounted meters. Our meters come in different forms

- a) Standard Panel Mounted
- b) Field Mounted Type:- Specially designed IP-65 enclosure to suit open atmosphere Industrial Conditions.

## Applications

- ▶ Water Treatment Industry
- ▶ Pharmaceutical Industry
- ▶ Beverage/Distillery Industry
- ▶ Bottling Industry
- ▶ Oil/Refining Industry
- ▶ Ready Mix Concrete Plants
- ▶ Automatic Liquid Dispensers
- ▶ Chemical Industry

## Principle of Operation

**VATS** Flow-meters are based on Paddle Wheel Insertion Type Sensor. This technology is adopted by many manufacturers worldwide. These flow-sensors work on "Faraday's Law Of Electro-magnetic induction."

The rotating paddle wheel generates a signal in proportional to the velocity of the moving fluid which is read in terms of the flow-rate. As the cross section area is known and remains fixed the average velocity is an Indication of the Flow-rate.

## VATS Flow-Sensor : JT121



### TECHNICAL SPECIFICATION

<b>Flow-rate range</b>	: 0.5m/sec to 5m/sec.
<b>Accuracy</b>	: +/- 1% of full scale deflection
<b>Input Voltage</b>	: 3.4 to 24 VDC
<b>Output Voltage</b>	: Square wave (Sinking) 30--35 Hz/meter/second
<b>Cable length</b>	: 3 meters
<b>Protecting Rating</b>	: IP-67
<b>Operating Temp.</b>	: with P.P. Sensor upto 70°C with PVDF / SS Sensor - upto 100°C

### MATERIAL OF CONSTRUCTION

	Body	Paddle /Rotor	Pin/Shaft	"O" Ring
Standard	PP	PVDF	Steel Shaft	Viton
Optional	PVDF/SS316	PVDF	Steel Shaft	Viton/PTFE

**VATS** flow-sensors gives excellent results in a a flow-velocity range 0.5m/sec to 5.0m/sec. For best results it is necessary to provide straight run of 10D & 5D after the fitting (Refer Users Manual).

For the sensor to sense the flow properly, it is important that the flow is developed turbulent i.e. the reynolds number  $Re \gg 5000$ .

### Line Size Selection (Water) : Min/Max Flow Rates

Pipe-Size(NB)	15	25	40	50	65	80	100
Min Flow(M3/Hr)	0.2	0.8	1.9	3.5	5.8	7.5	14
Max Flow(M3/Hr)	2.1	8.0	19	35	58	75	140

For higher line sizes contact the manufacturer

### MODEL SELECTION CHART

- A-110** :- Digital Flow-rate Indicator (Field)
- A-210** :- Digital Flow Totalizer + Batcher + Pulsar  
+ Rate Switch (Field Mounted Type)
- J-210** :- Digital Flow Totalizer + Batcher + Pulsar  
+ Rate Switch (Panel Mounted Type)
- J-510** :- Digital Flow-Transmitter (Panel Mounted Type)

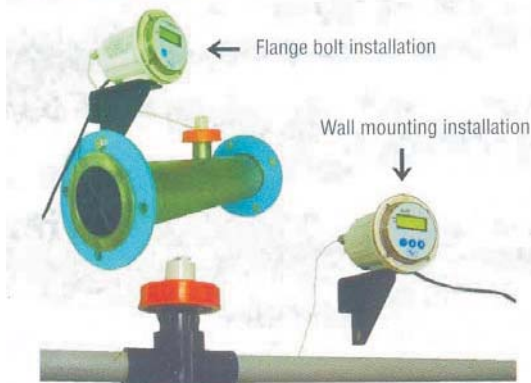
### Digital Flow-Rate Indicator : A-110



#### TECHNICAL SPECIFICATIONS :

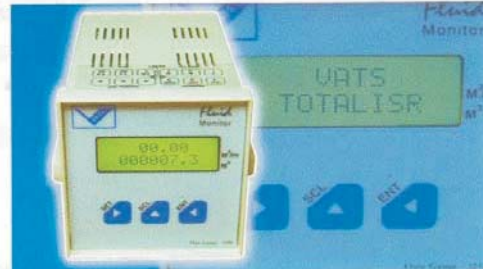
<b>Supply</b>	: 230 VAC, +/- 10% ,50Hz
<b>Input</b>	: From VATS sensor JT-121
<b>Accuracy</b>	: +/- 1% of full scale
<b>Meter Size</b>	: Dia.105mm x 120mm deep
<b>Display</b>	: 4 Digit alphanumeric with backlit
<b>Protection</b>	: IP--65

### Unique Installation Feature



\* With mounting clips it is possible to install in Panel also.

### Digital Flow Indicator/Totalizer : J-210



**Description:-** VATS J-210 Flow totalizer converts the flow-sensor [JT-121] signal into the required units with the help of Microprocessor based electronic module to indicate flow rate, totalized flow, or control a batch or to run a PID controller.

#### TECHNICAL SPECIFICATIONS OF J-210 :

[Panel Mounted Type]

<b>Supply</b>	: 230 VAC, +/- 10% ,50Hz
<b>Input</b>	: From VATS sensor JT-121
<b>Accuracy</b>	: +/- 1% of full scale
<b>Cut-out size</b>	: 69 mm x 69 mm
<b>Display</b>	: 8 x 2 alphanumeric (Backlit) 7 Digit for total & 4 Digit for flow
<b>Relay Output</b>	: * 1 Mechanical SPDT contacts 5A at 250 VAC max.(resistive load)



**VATS J-510 - Flow transmitter** is useful for following applications

- ◆ For PLC connectivity
- ◆ Recording Applications
- ◆ Direct Printing options
- ◆ Rate Switch for Proportional dosing by using common metering pump.

#### Digital Flow-Transmitter : J 510



Description : **VATS J-510** Flow transmitter converts the flow-sensor [JT-121] signal into the required engineering units with the help of Microprocessor based electronic module to indicate flow rate, total flow or control a batch or to run a PID controller. 4-20 mA current output is a standard feature. Computer compatibility with RS-232 or RS-485 interface is an add-on feature as optional.

#### TECHNICAL SPECIFICATIONS OF J-510

[Panel Mounted Type]

<b>Supply</b>	: 230 VAC, +/- 10%, 50Hz
<b>Input</b>	: From VATS sensor JT-121
<b>Accuracy</b>	: +/- 1% of full scale
<b>Cut-out size</b>	: 89 mm x 89 mm
<b>Display</b>	: 8 x 2 alphanumeric (Backlit) 7 Digit for total & 4 Digit for flow
<b>Output</b>	: 5A potential free relay@ 230 VAC 4-20 mA current output [600 Ohm] RS -232/485 (Optional)

#### Conductivity/TDS Indicator : KI-110



**VATS** make KI-110 is a field mounted type (On-line) Digital Conductivity Indicator. It comes in IP-65 plastic enclosure. The IP-65 plastic enclosure ensures protection from corrosive, wet, dusty atmosphere. The advanced solid state electronic module gives accurate and repetitive reading. It is very easy to install and to calibrate.

**Conductivity Range** : 0 to 4, 0 to 40, 0 to 100,  
0 to 2000 (Scale is in uS/cm/ppm)

#### Conductivity/TDS Controller : KT-250



For control applications such as initiation of regeneration of automatic demineralizers, pump tripping or audiovisual alarm, the Panel Mounted Conductivity Controller KT-250 is the best instrument available in the market today. At the set point, relay gets energised.

**TDS Indicator/ TDS controller** are also available with us.  
For more details please contact manufacturer.

## Our Valuable Customers

- ▶ ION Exchange (India) Ltd.
- ▶ Thermax Ltd.
- ▶ Hindustan Coca-Cola Beverages Pvt. Ltd.
- ▶ Piddilite Industries Ltd.
- ▶ L & T Ltd.
- ▶ Wheels India Ltd.
- ▶ Kirloskar Brothers Ltd.
- ▶ Nikhil Refineries Ltd.
- ▶ Shalimar Agro Products Ltd.
- ▶ Steel Authority of India Ltd.
- ▶ Rochem Separations Systems Pvt. Ltd.
- ▶ SMD Pumps Ltd.
- ▶ Glenmark Pharmaceutical Pvt. Ltd.
- ▶ A R A I
- ▶ Hero Honda Motors Ltd.
- ▶ Indian Hume Pipe Co.
- ▶ Ajax Fiori Engineers India Pvt .Ltd.

## Liquid Dispenser 'PANERA' for Concrete batching



**We undertake all types of Automatic liquid dispensers**