

## ELECTROMAGNETIC FLOW TRANSMITTER EPATMAG223 With Local Display



### KEY FEATURES

- Suitable for conductive liquid.
- Absolutely maintenance free.
- Full bore type.
- Local Indication through 2 Line LED.
- Simple & cost effective construction.
- Outstanding accuracy.
- Flow measurement in forward & reverse direction on demand.
- Empty pipe indication on demand.
- Material options depending upon process data.
- Universal power supply.
- Communication port on demand.



### DESCRIPTION

MICRO series EPATMAG-223 are micro-controller based full bore type electromagnetic flow transmitter specially used for various industrial applications. These flow transmitters accurately measures the flow rate of conductive liquids & slurries in closed pipes. Due to simple & rigid design, the flow transmitter is an obstruction less & maintenance free instrument in place of conventional mechanical flow measuring device. The use of 'Pulsed DC' technology offers highest ability & better measuring accuracy in the form of electrical signal 4 - 20 mA DC linearly proportional to volumetric flow. The instrument is based on Faraday's law of electro-magnetic induction. A magnetic field is generated by the instrument in the flow tube. The fluid flowing through this magnetic field generates a voltage that is proportional to the flow velocity. Corresponding electrical output is provided with respect to measuring voltage.



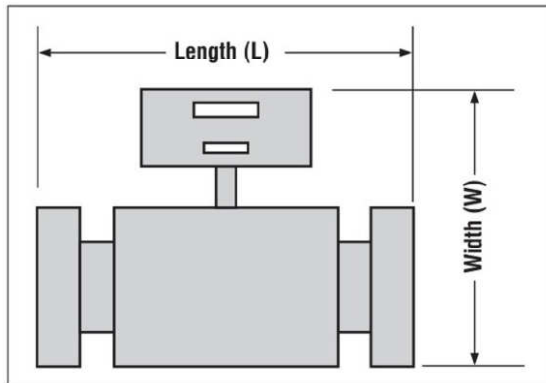
### TECHNICAL SPECIFICATIONS

Media	: Liquids (Conductive)	Power Supply	: 1) 24 V DC, External 2) 90 - 250 V AC, 50 Hz
Conductivity	: $\geq 5 \mu\text{s/cm}$	Power Consumption	: < 10 VA
Viscosity	: 200 cp max	Isolation	: 1.4 KV between Input, Output & Power Supply
Line Size	: 15 NB to 600 NB	Response Time	: < 100 mSec
Excitation	: Pulsed DC coil	Temperature Coefficient	: +/- 0.1% per °C
Type of Output	: 1) 4 to 20 mA DC, Isolated 2) Pulse	Process Connections	: ASA 150 flanged, as per table B
Display	: LED - 4 digit for Flow Rate & 9 digit for Totalised Flow	Mounting	: In-Line (Horizontal or Vertical)
Calibration Range	: As per requirement (Factory Calibrated)	Operating Conditions	: Temperature 0 to 55°C / Humidity 5 to 95% non condensing
Accuracy	: +/- 0.5% F. S. (For 20 to 100% flow)	Transmitter Enclosure	: Aluminum Enclosure IP68 / IP67
Linearity	: +/- 0.5%	<b>OPTIONAL</b>	
Repeatability	: +/- 1%	Communication Port	: RS 485 supporting MODBUS RTU Protocol
Process Temperature	: 85°C, 150°C max	Transmitter Enclosure	: Flame-proof, IP-65, IIA, IIB CMRI certified
Process Pressure	: 10 kg/cm <sup>2</sup> max		
Material of construction	: Lining - Rubber / PTFE (Teflon) Flange - CS / MS / SS Electrode - SS 316 / Hastalloy C Coil Housing - MS / SS 304		

## ELECTROMAGNETIC FLOW TRANSMITTER EPATMAG223 With Local Display

### Dimensions Details with Flow Rate

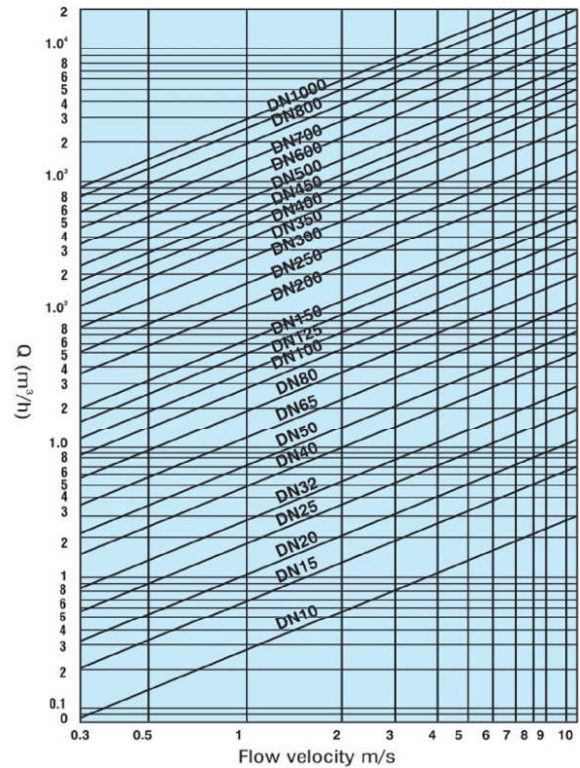
Sr. No.	Line Size In mm.	Min. Flow Rate At 0.5 m/s in m <sup>3</sup> /h	Max. Flow Rate At 5 m/s in m <sup>3</sup> /h	Total Length (L) In mm.	Total Width (W) In mm.
1	15	0.318	3.18	186	308
2	25	0.883	8.83	186	313
3	40	2.26	22.6	186	313
4	50	3.53	35.3	186	330
5	65	5.97	59.7	186	355
6	80	9.04	90.4	186	368
7	100	14.13	141.3	230	408
8	125	22.07	220.7	230	492
9	150	31.8	318	230	458
10	200	56.52	565.2	280	522
11	250	88.312	883.12	330	586
12	300	127.17	1271.7	380	662



### Industries :

- Effluent Treatment Plant
- Sewage Treatment Plant
- Water Supply Scheme
- Steel & Aluminum Industries
- Food & Drug Industries
- Chemical & Fertilizers
- Dairy Industries
- Pump & Valve Calibration Lab
- Sugar Industries

### Flownomograph



### Application :

- Raw Water, Portable Water, Sea Water, Waste Water, Cooling Water, Heat Exchanger
- Industrial & Domestic Effluent
- Syrup, Molasses, Fruit Juice, Pulp & Beverages
- Acidic & Alkaline Solutions
- Brine Solutions
- Paper Pulp, Black, Green & White Liquor