



Technical specification:-

- Media: Liquids (Conductive)
- Conductivity : $\geq 10 \mu\text{S}/\text{Cm}$
- Viscosity: 200 cp max.
- Line Size: 15NB to 600 NB
- Excitation: Pulsed DC Coil
- Type of Output: 4-20 mA isolated
- Display: LED- 4 digit for Flow rate
9 digit for Totalized flow
- Calibration Range :
As per requirements(Factory calibration)
- Accuracy: $\pm 0.5\%$ of FSD
- Repeatability : $\pm 1\%$
- Process Temperature: 85°C , 150°C
- Process Pressure : $10\text{kg}/\text{cm}^2$ max.
- Material of Construction : Lining: Rubber/PTFE
Flange: CS/MS/SS
Electrode: SS316/ Hastalloy C
Coil Housing: MS/SS304
- Power Supply : 230 VAC, 50 Hz
- Response Time: $< 100 \text{ mSec.}$
- Temperature coefficient : $\pm 0.1\%$ Per $^\circ\text{C}$
- Process Connection : ASA 150 Flanged
- Mounting: Inline (Horizontal / vertical)
- Operating Temperature: 55°C
- Transmitter Enclosure: Aluminum
Enclosure IP67/IP68

Optional:-

Communication Port: RS485 Supporting
Transmitter Enclosure: Flame Proog,
IP65, IIA, IIB CMRI Certi.

Salient Features:

- Full Bore type
- Simple and Cost effective Construction
- Absolutely Maintenance free
- Suitable for all conductive liquids and slurries
- Outstanding Accuracy and Reliable Performance
- Flow measurement in forward and reverse direction on demand
- Universal power supply
- Empty pipe indication on demand
- Different models available on application
- Communication port on demand

Description: Vision's EMAG-223 are micro controller based full bore type electromagnetic flow transmitter specially used for various industrial applications. These flow transmitters accurately measure the flow rate of conductive liquids and slurries in closed pipes. Due to simple and rigid design, the flow transmitter is an obstruction less & maintenance free instrument in place of conventional mechanical flow measuring device. The use of advance 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 flow velocity.

Sr. No	Line Size In mm.	Min. Flow rate At 0.5 m/s In M3/Hr.	Max. Flowrate At 5 m/s In M3/Hr.	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	462
9	150	31.8	318.0	230	458
10	200	56.52	565.2	280	522
11	250	88.312	883.12	300	586
12	300	127.17	1271.7	330	662

AAVAD ELECTROMAGNETIC FLOW TRANSMITTER

EMAG223 WITH LOCAL DISPLAY

INSTALLATION DIAGRAMS

The sensor must always be completely full with liquid.

Therefore avoid:

- Installation at the highest point in the pipe system
- Installation in vertical pipes with free outlet

For partially filled pipes or pipes with download flow and free outlet the flowmeter should be located in a U -tube.

Recommended flow direction: upwards. This minimizes the effect on the measurement of any gas/air bubbles in the liquid.

Do not mount the sensor as shown in the lower figure. This will position the electrodes at the top where there is possibility for air bubbles and at the bottom where there is possibility for mud, sludge, sand etc.

Industries:

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

Application:-

Raw water , Portable water,
Sea water, Waste water,
Heat exchanger Industrial &
Domestic Effluent Syrup,
molasses, Fruit Juice,
Pulp & Beverages Acidic &
Alkaline Solution, Cooling water,
Brine Solutions Paper Pulp,
Black, Green and White Liquor.

AAVAD INSTRUMENT

332,Sangath mall-1,
Opp : Govt.Engineering Collage,
Sabarmati-Gandhinagar Road,
Motera.Ahmedabad-380005,
Gujarat-India

Phone : +91-079-304 22823

Fax : +91-079-400 95342

Mobail : +91-9825073098

Email : sales@aavadinstrument.com

Website : www.aavadinstrument.com

