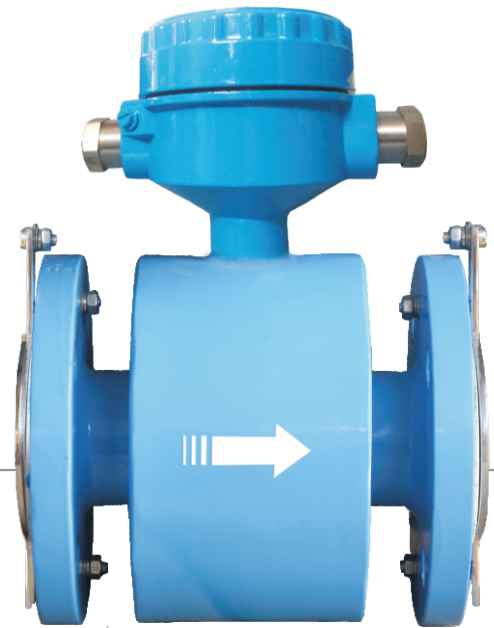


TWO WIRE ELECTROMAGNETIC FLOW METER
Features

- Full bore type
- Suitable for conductive liquids
- Two Wire system
- Empty Pipe Indication
- Material option depending upon Process Data
- Local Indication through LCD
- Maintenance free
- Simple & Cost Effective Construction

Description

Electronet series ELMAG®-TX22 are micro-controller based 2 wire full bore type electromagnetic flow transmitters specially used for various industrial applications. These flow transmitters accurately measure the flow rate of conductive liquids and slurries in closed pipes. Due to its simple and rigid design, the flow transmitter is an obstruction-less and maintenance-free instrument in place of conventional mechanical flow measuring device. The use of 'Pulsed DC' technology offers highest ability and 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 electromagnetic 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 and corresponding electrical output is provided with respect to ensuring voltage.


Technical Specifications

Media	Liquids (Conductive)
Line Size	15 NB to 200 NB
Electronics	Integral
Conductivity	> 5 $\mu\text{s/cm}$
Viscosity	200 cp max
Excitation	Pulsed DC Coil
Type of Output	4 to 20mA DC, 2 wire
Display	LCD display – 5 Digit for Flow Rate and 8 Digit for Totalizer Flow
Engineering Unit	User Programmable (m^3/hr by default)
Calibration Range	Wet Calibrated on IEC/ISO/EN17025 Accredited Calibration Rig.
Accuracy	+/- 1% of M.V. (For Flow Velocity > 0.5 m/s)
Flow Velocity Range	0 m/s to + 6 m/s
Linearity	+/- 0.5% of M.V.
Repeatability	+/- 0.2% of M.V.
Temperature Coefficient	+/- 0.1% per $^{\circ}\text{C}$
Certification	CE

Process Temperature	-20 to 85° C max for Rubber Lining & -20 to 220°C for PTFE Lining
Process Pressure	16 kg/cm ² max (Higher on request)
Material of construction	1) Lining – Neoprene Rubber / Hard Rubber / EPDM / PFA / PTFE / CERAMIC
	2) Flange – MS / CS / SS316 / SS304
	3) Electrode – SS 316L/ Hastalloy C / Platinum / Tantalum
	4) Coil Housing – SS / MS
Power Supply	24V DC
Power Consumption	40 mw
Isolation	1.4 KV between Input, Output and Power Supply
Response Time	10 Sec.
Transmitter Enclosure	Electronics : IP66, Flow Tube : IP68
Process Connections	ANSI150 flanged, as per table B 16.5 (Other On Requirement)
Mounting	In-Line Horizontal / Vertical
Operating Conditions	Temperature -20 to 75°C / Humidity 5 to 95% non condensing
Note :- For process conditions other than above please consult factory.	

Assembly Overview

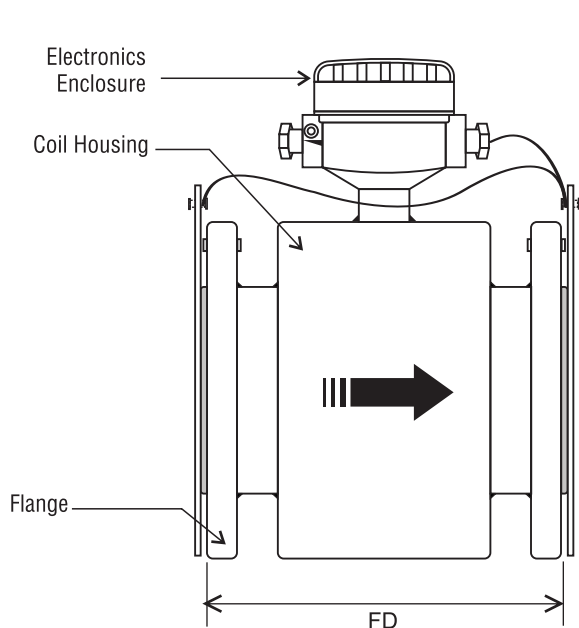


Fig. 1 Front View

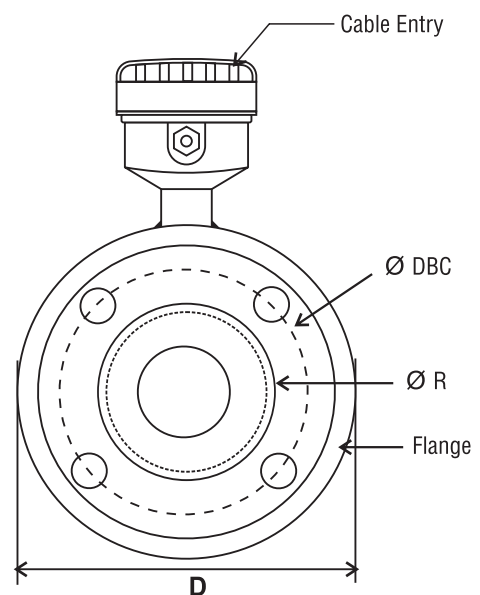


Fig. 2 Side View

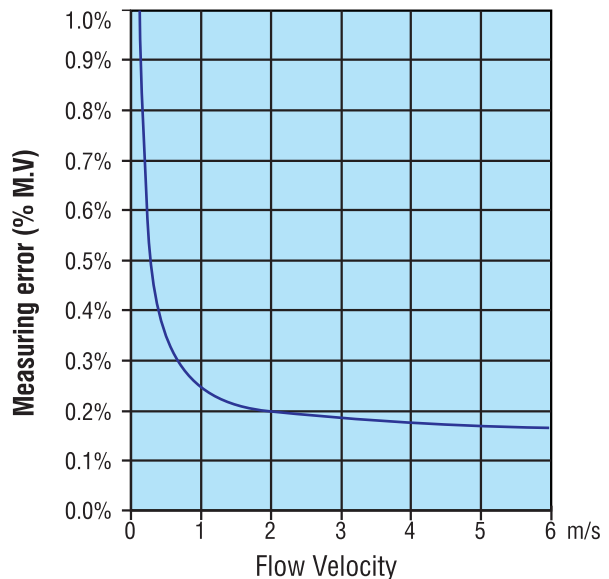
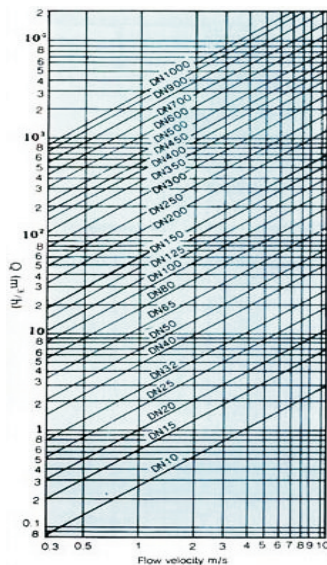
TABLE -1 : Dimensional Details Of Flange, as Per ANSI 150 # B-16.5

Refer Drg. Fig.1 & 2

Line Size		Flange Diameter 'D'	Diameter of Raised Face 'R'	Diameter of Bolt Hole Circle 'DBC'	Diameter of Bolt Hole	No. of Holes	Flange Distance 'FD'	Flow Range(m ³ /hr) at 0.3m/s to 6m/s	
Inch	NB							Minimum	Maximum
1/2"	15	88.9	34.9	60.3	15.9	4	200	0.19	3.817
3/4"	20	98.4	42.9	69.8	15.9	4	200	0.33	6.785
1"	25	107.9	50.8	79.4	15.9	4	200	0.53	10.602
1 1/2"	40	127.0	73	98.4	15.9	4	200	1.35	27.143
2"	50	152.4	92.1	120.6	19.0	4	200	2.12	42.4115
2 1/2"	65	177.8	104.8	139.7	19.0	4	200	3.58	71.675
3"	80	190.5	127.0	152.4	19.0	4	200	5.42	108.573
4"	100	228.5	157.2	190.5	19.0	8	250	8.48	169.646
5"	125	254.0	185.7	215.9	22.2	8	250	13.25	265.071
6"	150	279.4	215.9	241.3	22.2	8	300	19.085	381.703
8"	200	342.9	269.9	298.4	22.2	8	350	33.929	678.584

- Note :
- All dimensions are in 'mm'
 - Flange to flange distance (FD) Tolerance : 1) 1/2"(15NB) to 6"(150NB) : +/-3mm 2) 8"(200NB) : +/-5mm
 - For dimensions of line size above 300NB, please consult factory.
 - Typical mounting dimensions are for reference only.
 - Wet Calibrated on IEC/ISO/EN17025 Accredited Calibration Rig.
 - Flow meter should be selected with the help of Nomograph (recommended full scale velocity).
 - Flow indication of 6 digit max. up to 999999.

Flow Nomograph



Ordering Information

Sample Order Code : 01A-07B-22B-23A-66A-67D-68A-69D-70B-71D-72B-73C

Parameter	Code	Value	Code	Value	Parameter	Code	Value				
01	Line Size	01A	15 NB	01G	65 NB	69	Lining Material	69A	Neoprene Rubber		
		01B	20 NB	01H	80 NB			69B	Hard Rubber		
		01C	25 NB	01I	100 NB			69C	Ebonite Rubber		
		01D	32 NB	01J	125 NB			69D	EPDM		
		01E	40 NB	01K	150 NB			69E	PFA		
		01F	50 NB	01L	200 NB			69F	PTFE		
07	Area Classification	07A	Weather Proof	70	Flange Standard			70A	ANSI		
		07B	Flame Proof					70B	DIN		
22	MOC Electronics Enclosure	22A	Die Cast Aluminium	70C	AWWA			71	Flange Rating	71A	ANSI 150
		22B	SS316	70X	Other					71B	ANSI 300
		22C	ABS Plastic	70Z	NA	71C	ANSI 600				
23	Cable Entry	23A	M20 X 1.5	72	MOC Flow Tube	72B	SS304				
		23B	½" NPTF			72C	PVC				
		23X	Other			72X	Other				
66	Process Connection	66A	Threaded		73	MOC Electrode	73A	SS316L			
		66B	Flanged				73B	Hastelloy			
		66E	* Tri Clover				73C	Platinum			
67	MOC Flange	67A	MS	73D			Tantalum				
		67B	CS	73E	Titanium						
		67C	SS316								
		67D	SS304								
		67E	PVC								
		67Z	NA								
68	MOC Coil Housing	68A	MS								
		68B	SS304								
		68C	SS316								
		68D	PVC								

Note : ▪ Due to our continuous product revisions, design specification and model numbers are subject to change without notice. ▪ To be used for industrial applications.
▪ Accuracy defined at Lab Conditions. ▪ For other requirement please consult factory. * Process connection –Tri Clover : Upto Max. 4 inch Line Size

Applications

Food Industry	Chemical Industry	Atomic Energy	Manufacturing Industry
Automation Industry	Thermal Power Energy	Process Industry	Water Treatment Industry

ELECTRONET EQUIPMENTS PVT. LTD.

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