

BATTERY OPERATED ELECTROMAGNETIC FLOW METER

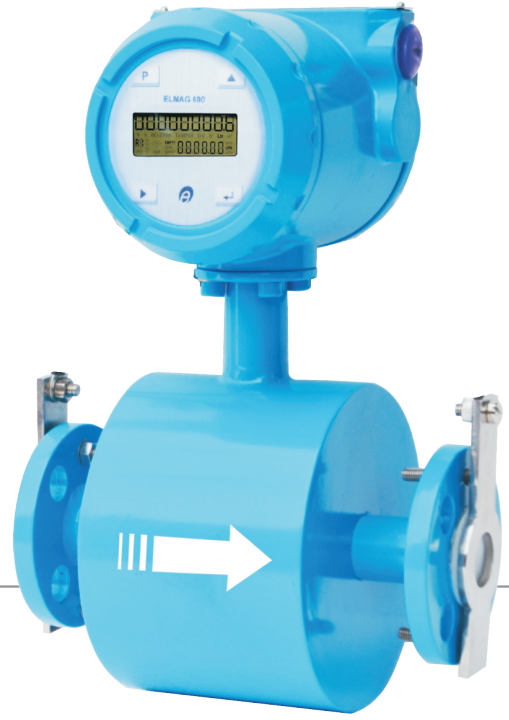
Features

- Battery Operated
- Suitable for conductive liquids
- Full bore type
- Empty pipe indication
- Data Logging facility for 10 years.
- Local Indication through LCD
- Communication port (Optional)
- Simple & Cost Effective Construction
- Maintenance Free
- Protection Class : Electronics – IP66, Flow Tube – IP68

Description

Electronet series ELMAG®-600 battery-powered Electromagnetic flow meter. It is ideal when power supply on field not present, the battery powered ELMAG®-600 gives the flexibility to install a reliable

flow meter, virtually anywhere, without distorting accuracy & performance. ELMAG®-600 is provided with 2 to 10 years of continuous battery operation. The flow meter is extremely easy to use, simple to install & requires no regular maintenance. The product is engineered for various industrial as well as domestic applications such as Municipal and Industrial Water applications, Cooling tower, Water treatment, etc. The LCD display provides indication for flow rate & totalized flow with key selection. The display automatically turns OFF after 10 minutes, which can be again turned ON by pressing the 'enter' key.



Technical Specifications

Media	Liquids (Conductive)
Line Size	15 NB to 600 NB
Electronics	Integral / Remote
Conductivity	> 5 µs/cm
Viscosity	200 cp max
Excitation	Pulsed DC
Display	LCD Display – 5 digit for Flow Rate & 9 digit for Totalizer Flow
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	-6 m/s to +6 m/s
Linearity	+/- 0.5% of M.V.
Repeatability	+/- 0.2% of M.V.
Temperature Coefficient	+/- 0.05% per °C
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)
Certification	CE

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	Inbuilt Battery 3.6V, 19 Ah
Low Bat indication	Provided
Battery Life	2 to 10 Years depending on sampling time.
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
OPTIONAL :	
Communication Output	1) RS 232
	2) GSM Connectivity
	3) Pulse / Frequency Output (0 to 1 KHz)
Note :- For process conditions other than above please consult factory.	

Assembly Overview

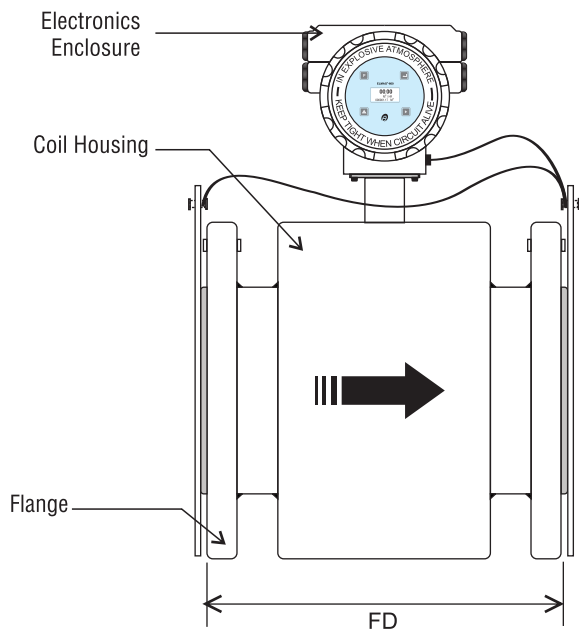


Fig. 1 Front View

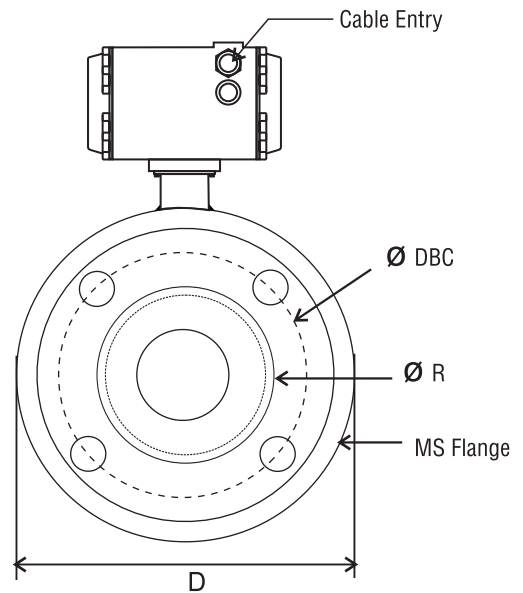


Fig. 2 Side View

TABLE : Dimensional Details Of Flange (as Per ANSI 150 # B-16.5) & Finished Product

Refer Drg. Fig.1 & 2

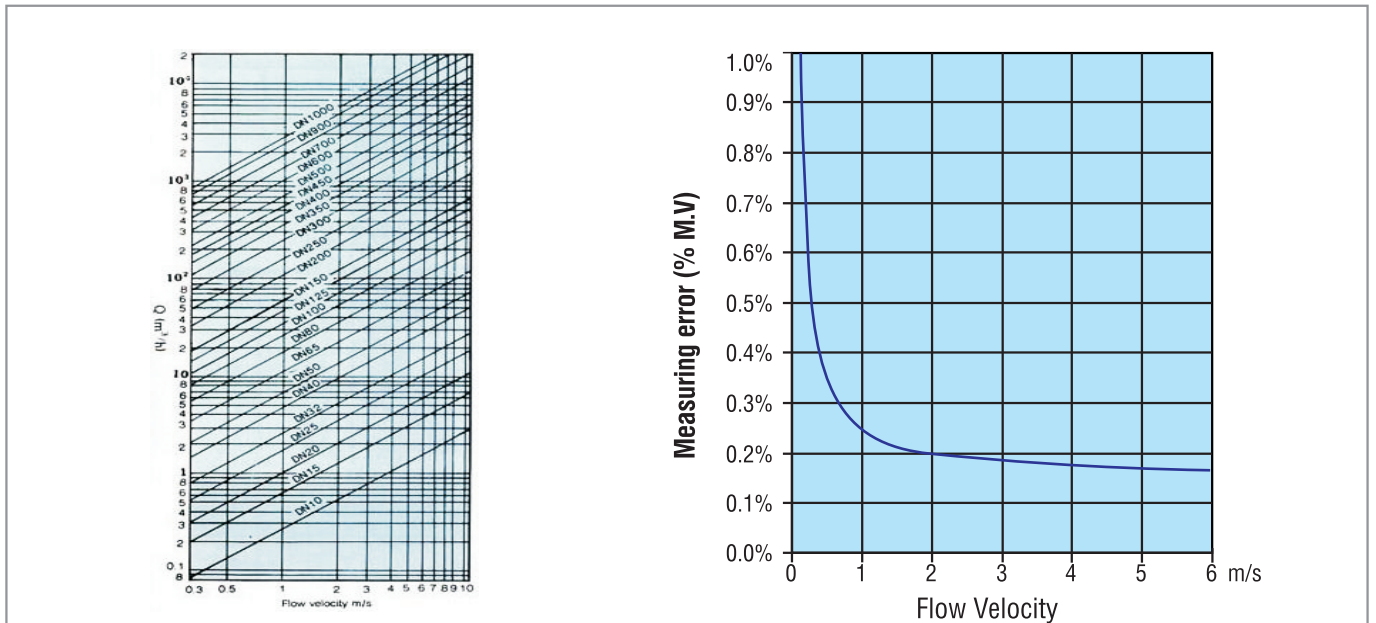
Line Size Inch	NB	Flange Diameter D (mm)	Diameter of Raised Face R (mm)	Diameter of Bolt Hole Circle DBC (mm)	Diameter of Bolt Hole (mm)	No. of Holes	Thickness of Flange	Housing OD (mm)	Flange to Flange Distance (FD) (mm)	FD with Lining (mm)	FD With Grounding Ring (mm)	Flow Range (m ³ /hr) at 0.03m/s to 6m/s	
												Min.	Max.
1/2"	15	88.9	34.9	60.3	15.9	4	11.1	125	190	196	204	0.019	3.817
3/4"	20	98.4	42.9	69.8	15.9	4	12.7	125	190	196	204	0.033	6.785
1"	25	107.9	50.8	79.4	15.9	4	14.3	145	190	196	204	0.053	10.602
1 1/4"	32	117.5	63.5	88.9	15.9	4	15.9	155	190	196	204	0.086	17.371
1 1/2"	40	127.0	73	98.4	15.9	4	17.5	155	190	196	204	0.135	27.143
2"	50	152.4	92.1	120.6	19.0	4	19.0	165	190	196	204	0.212	42.4115
2 1/2"	65	177.8	104.8	139.7	19.0	4	22.2	185	190	196	204	0.358	71.675
3"	80	190.5	127.0	152.4	19.0	4	23.8	205	190	198	206	0.542	108.573
4"	100	228.5	157.2	190.5	19.0	8	23.8	245	240	248	256	0.848	169.646
5"	125	254.0	185.7	215.9	22.2	8	23.8	265	240	250	258	1.325	265.071
6"	150	279.4	215.9	241.3	22.2	8	25.4	285	290	300	308	1.9085	381.703
8"	200	342.9	269.9	298.4	22.2	8	28.6	355	340	350	358	3.3929	678.584
10"	250	406.4	323.8	361.9	25.4	12	30.2	405	440	452	460	5.3014	1060.28
12"	300	482.6	381.0	431.8	25.4	12	31.8	485	490	502	510	7.6340	1526.81
14"	350	533.4	412.7	476.2	28.6	12	34.9	555	540	552	560	10.3908	2078.16
16"	400	596.9	469.9	539.7	28.6	16	36.5	605	590	602	610	13.5716	2714.33
18"	450	635.0	533.4	577.8	31.7	16	39.7	605	590	602	610	17.1766	3435.33
20"	500	698.5	584.2	635.0	31.7	20	42.9	630	590	600	608	21.2057	4241.15
24"	600	812.8	692.1	749.3	34.9	20	47.6	755	590	600	608	30.5362	6107.25

Note : Flange to flange distance (FD) Tolerance : 1) 1/2"(15NB) to 6"(150NB) : +/-3mm 2) 8"(200NB) to 24"(600NB) : +/-5mm

- All dimensions are in 'mm'
- For dimensions of line size above 600NB, 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



Applications

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

Ordering Information

Sample Order Code : 01A-07B-09B-10A-22A-23B-24B-49D-54A-66B-67C-68C-69F-70A-71A-72B-73A

Parameter	Code	Value	Code	Value	Parameter	Code	Value				
01	Line Size	01A	15 NB	01K	150 NB	67	MOC Flange	67A	MS		
		01B	20 NB	01L	200 NB			67B	CS		
		01C	25 NB	01M	250 NB			67C	SS316		
		01D	32 NB	01N	300 NB			67D	SS304		
		01E	40 NB	01O	350 NB			67E	PVC		
		01F	50 NB	01P	400 NB			67Z	NA		
		01G	65 NB	01Q	450 NB			68	Coil Housing	68A	MS
		01H	80 NB	01R	500 NB					68B	SS304
		01I	100 NB	01S	600 NB					68C	SS316
		01J	125 NB							68D	PVC
07	Area Classification	07A	Weather Proof		69	Lining Material	69A	Neoprene Rubber			
		07B	Flame Proof				69B	Hard Rubber			
09	Electronics	09A	Integral				69C	Ebonite Rubber			
		09B	Remote				69D	EPDM			
10	Remote Cable Length	10A	2 Meter				69E	PFA			
		10B	5 Meter				69F	PTFE			
		10Z	NA				69G	PU			
22	MOC Electronics Enclosure	22A	Die Cast Aluminium				69H	Ceramic			
		22B	SS316				69X	Other			
		22C	ABS Plastic				70	Flange Standard	70A	ANSI	
23	Cable Entry	23A	M20 X 1.5		70B	DIN					
		23B	1/2" NPTF		70C	AWWA					
		23X	Other		70X	Other					
24	Power Supply	24C	Battery Operated		70Z	NA					
		24D	Solar + Battery Operated		71	Flange Rating			71A	ANSI 150	
49	Output	49D	Pulse				71B	ANSI 300			
		49E	Freq (0 to 1 KHz)				71C	ANSI 600			
		49Y	None				71D	DIN 10			
54	Communication Output 2	54A	GSM				71E	DIN 16			
		54E	GPRS				71F	DIN 40			
		54Y	None				71X	Other			
66	Process Connection	66A	Threaded				71Z	NA			
		66B	Flanged		72	MOC Flow Tube	72B	SS304			
		66E	* Tri Clover				72C	PVC			
73	MOC Electrode				73A	SS 316L					
					73B	Hastelloy					
					73C	Platinum					
					73D	Tantalum					
					73E	Titanium					

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

ELECTRONET EQUIPMENTS PVT. LTD.

Factory Address:

Plot No. 8, (SEZ) Phase 1, Kesurdi MIDC,
 Khandala, Dist.- Satara
 Pin: 412 801, Maharashtra, India.

Registered Office:

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 Kondhwa Budruk,
 Pune-411 048, Maharashtra, India.

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