

FL 106

BATTERY OPERATED TURBINE FLOW METER

Features

- Remote Display optionally available
- Simple & Cost Effective Construction
- Local Display as 8X1 LCD
- Suitable for Conductive and Non Conductive Liquids
- 2 to 10 Years Battery Life
- Durable & Versatile
- Maintenance Free
- Protection Class : IP-66

Description

Electronet series FL-106 are battery operated turbine flow transmitter specially used for various industrial applications. The flowing media engages a vaned rotor causing it to rotate at an angular velocity proportional to flow rate. The pick-up coil senses the spinning motion of the rotor inside the pipe & converts it into a pulsating electrical signal. Summation of the pulsating electrical signal is directly related to the total flow. The frequency is linearly proportional to flow rate.



Technical Specifications

Media	Liquids (Clear)
Line Size	15 NB to 300 NB
Electronics	Integral / Remote
Viscosity	100 cp max
Display	Display – 4 Digit for Flow Rate & 8 Digit for Totalised Flow (Flow Rate & Totalised Flow will be visible through Toggle Key)
Remote Electronics Cable	15 Meters Max.
Type of Output	1) Frequency (0 to 1 KHz) 2) Pulse
Calibration Range	As per requirement (Factory Calibrated)
Accuracy	+/- 1% of F. S. @ Velocity > 0.5 m/s
Linearity	+/- 1% of F. S.
Repeatability	+/- 1% of F. S.
Temperature Coefficient	+/- 0.01% Per °C
Pressure Drop	Approx. 0.28 kg/cm ² @ max. Flow
Turn Down Ratio	10 : 1 to 100 : 1
Process Pressure	0 to 10 kg/cm ² max
Material of construction	1) Bearings – Tungsten Carbide Sleeve / V Jewel 2) Rotor – SS 410 / 17.4 PH 3) Shaft – Tungsten Carbide 4) Body / Support / Flange – SS
Power Supply	Battery Operated (2 Nos 3.6V DC) / Solar Powered
Battery Life	2 to 10 years depending on sampling time
Power Consumption	< 40 mW
Certification	CE

Response Time	< 500 mSec
Transmitter Enclosure	Die Cast Aluminum IP 65
Process Connections	1) ASA 150 RF, flanged as per table B 16.5
	2) Threaded (Upto 50 NB)
	3) SS Tri-Clover (Upto 150 NB)
Mounting	In-Line Horizontal / Vertical
Operating Conditions	Temperature -20 to 120°C / Humidity 5 to 95% non condensing
Pulse output(Open collector)	Freq. Range max. 1 kHz
Note :- For process conditions other than above please consult factory.	

Assembly Overview

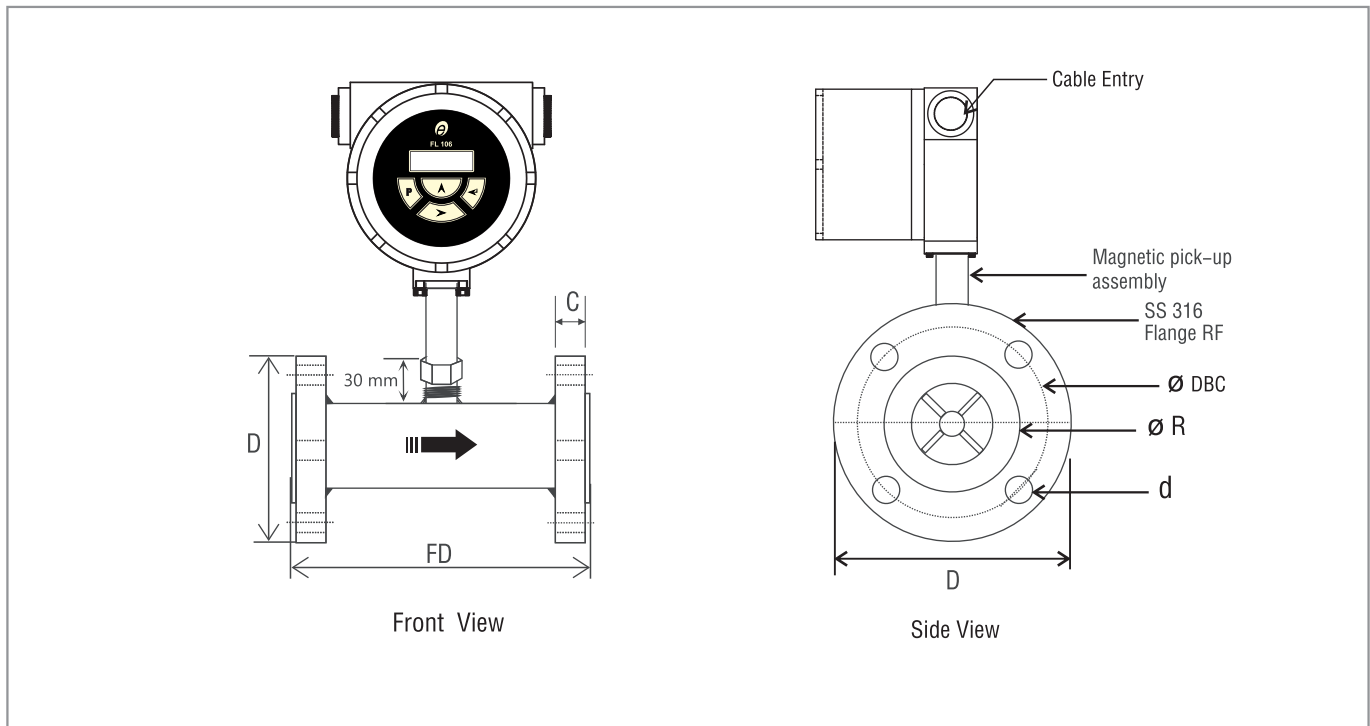


TABLE -1 : Dimensional Details Of Flange, as Per ANSI 150 # B-16.5

Note :	Line Size		Flow Range			Flange Details					
	Inch	NB	0.3m/s (m ³ /hr)	2m/s (m ³ /hr)	10m/s (m ³ /hr)	ANSI 150 (B 16.5)					
						D	C	R	DBC	d	FD
D : (OD)Outer Diameter of Flange	1/2"	15NB	0.19	3.275	6.36	88.9	11.1	34.9	60.3	15.9	200
C : Thickness of flange	3/4"	20NB	0.34	5.825	11.31	98.4	12.7	42.9	69.8	15.9	200
R : Diameter of Raised face	1"	25NB	0.5301	9.100	17.67	107.9	14.3	50.8	79.4	15.9	200
DBC : Diameter of bolt circle	1 1/4"	32NB	0.87	14.91	28.95	117.0	14.0	64	78	14.0	192
d : Size of Bolt Hole	1 1/2"	40NB	1.36	23.3	45.24	127.0	17.5	73	98.4	15.9	200
FD : Flange to Flange distance	2"	50NB	2.12	36.4	70.69	152.4	19.1	92.1	120.6	19.0	200
No. of Holes:	2 1/2"	65NB	3.58	61.52	119.46	177.8	22.2	104.8	139.7	19.0	200
For 1/2" to 3" = 4 Holes	3"	80NB	5.43	93.19	180.96	190.5	23.8	127.0	152.4	19.0	200
4" to 6" = 8 Holes	4"	100NB	8.48	145.61	282.74	228.6	23.8	157.2	190.5	19.0	250
*Typical mounting dimensions for reference only	5"	125NB	13.25	227.52	441.79	254.0	23.8	185.7	215.9	22.2	300
*All dimensions are in 'mm'	6"	150NB	19.09	327.63	636.17	279.4	25.4	215.9	241.3	22.2	300
	8"	200NB	33.93	582.45	1130.97	342.9	28.3	269.9	298.4	22.2	350
	10"	250NB	53.01	910.08	1767.15	323.8	30.2	323.8	361.9	25.4	450
	12"	300NB	76.34	1311.01	2544.69	381.0	31.8	381.0	431.8	25.4	500

Ordering Information

Sample Order Code : 01A-07B-09B-10B-15A-16D-22A-23B-24B-49E-66B-67C-70A-71A-72B-82B-83A

Parameter	Code	Value		Parameter	Code	Value				
01	Line Size	01A	15 NB	49	Output	01H	80 NB			
		01B	20 NB			01I	100 NB			
		01C	25 NB			01J	125 NB			
		01D	32 NB		01K	150 NB	66	Process Connection	66A	Threaded
		01E	40 NB		01L	200 NB			66B	Flanged
		01F	50 NB		01M	250 NB			66E	Tri Clover
		01G	65 NB		01N	300 NB		67	MOC Flange	67C
07	Area Classification	07A	Weather Proof	67D	SS304					
		07B	Flame Proof	67X	Other					
09	Electronics	09A	Integral	67Z	NA	70	Flange Standard			70A
		09B	Remote	70B	DIN					
10	Remote Cable Length	10A	2 Meter	70C	AWWA					
		10B	5 Meter	70X	Other					
		10C	10 Meter	70Z	NA					
		10D	15 Meter	71	Flange Rating	71A	ANSI 150			
15	Process Temperature	15A	-20 to 120 °C			71B	ANSI 300			
		15X	Other			71C	ANSI 600			
16	Process Pressure Range	16A	150 psi			71D	DIN 10			
		16B	300 psi			71E	DIN 16			
		16C	600 psi			71F	DIN 40			
		16D	900 psi	71X	Other					
		16X	Other	71Z	NA					
22	MOC Electronics Enclosure	22A	Die Cast Aluminium	72	MOC Flow Tube	72B	SS304			
		22B	SS316			72D	SS316			
		22C	ABS Plastic			72X	Other			
23	Cable Entry	23A	M20 X 1.5	82	MOC Rotor	82A	SS410			
		23B	1/2" NPTF			82B	17-4PH			
		23X	Other			82X	Other			
24	Power Supply	24C	Battery Operated	83	Bearings	83A	TG Sleeve			
		24D	Solar + Battery Operated			83B	V Jewel			
								83X	Other	

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.

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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