



# FL 100

## TWO WIRE TURBINE FLOW METER WITH LCD DISPLAY

### Features

- 2 Wire System
- Simple & Cost Effective Construction
- Local LCD Display
- Suitable for Conductive and Non-Conductive Liquids
- Electronics Protection Class : Weatherproof IP 65, IP 67
- Easy Maintenance



### Description

**E**lectronet series FL-100 are 2 wire turbine flow transmitters 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 which is converted to electrical signal 4 – 20 mA .

### Technical Specifications

Media	Liquids
Line Size	15 NB to 200 NB
Electronics	Integral (Local) / Remote
Viscosity	100 cp max
Display	LCD display – 4 Digit for Flow Rate and 8 Digit for Totalizer Flow (Flow Rate & Totalised Flow will be visible through Toggle Key)
Remote Electronics Cable	15 Meters Max.
Type of Output	4 to 20mA DC
Calibration Range	As per requirement (Factory Calibrated)
Accuracy	< ± 0.5% of F. S. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
Linearity	+/- 0.5% of F. S.
Repeatability	+/- 0.5% of F. S.
Temperature Coefficient	+/- 0.01% Per °C
Pressure Drop	Approx. 0.28 kg/cm <sup>2</sup> @ max. Flow
Turn Down Ratio	10 : 1
Process Temperature	-20 to 120° C max
Process Pressure	0 to 10 kg/cm <sup>2</sup> max
Material of Construction	1) Bearings – Tungsten Carbide Sleeve / V Jewel
	2) Rotor – SS410 / 17.4 PH
	3) Shaft – Tungsten Carbide
	4) Body / Support / Flange – SS
Cable Entry	M20 X 1.5 / ½” NPTF
Certification	<b>CE</b>

Power Supply	24V DC Two Wire Loop Powered
Power Consumption	Less than 0.5 VA
Response Time	Less than 100 mSec.
Electronic Protection Class	Field Mount Weather Proof IP-67, Flameproof (CMRI IIA IIB Certified)
Process Connections	1) ASA 150 RF, Flanged as per Table B 16.5 (15 to 200 NB)
	2) Threaded (15 to 50 NB)
	3) SS Tri-Clover (15 to 100 NB)
Mounting	In-Line Horizontal / Vertical
Ambient Conditions	Temperature -20 to 75°C / Humidity 5 to 95% non condensing

### Assembly Overview

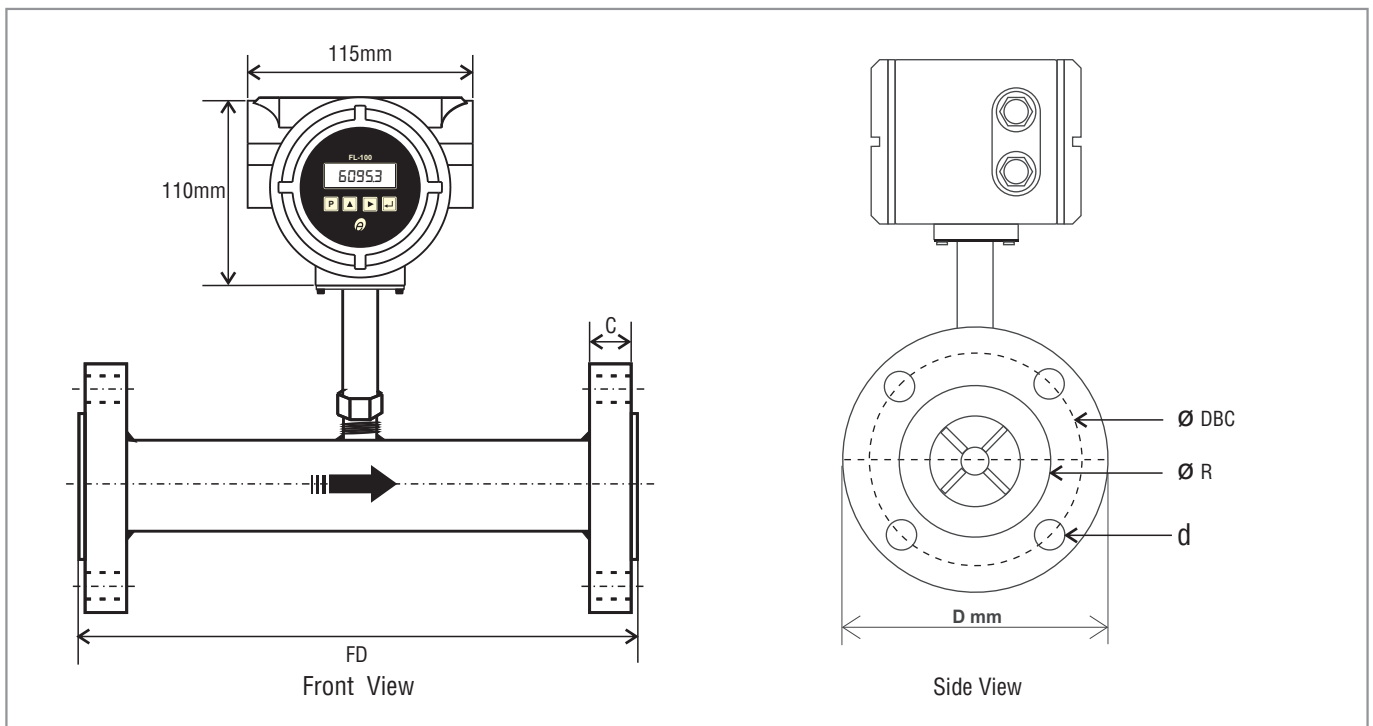


TABLE -1 : Dimensional Details (Flow Meter with ANSI 150 Flange)

	Line Size		Flow Range			Flange Details					
	Inch	NB	0.3m/s (m <sup>3</sup> /hr)	2m/s (m <sup>3</sup> /hr)	10m/s (m <sup>3</sup> /hr)	ANSI 150 (B 16.5)					
						D	C	R	DBC	d	FD
<b>Note :</b> D : (OD)Outer Diameter of Flange C : Thickness of flange R : Diameter of Raised face DBC : Diameter of bolt circle d : Size of Bolt Hole FD : Flange to Flange distance  <b>No. of Holes:</b> For ½" to 3" = 4 Holes 4" to 6" = 8 Holes *Typical mounting dimensions for reference only *All dimensions are in 'mm'	½"	15NB	0.19	3.275	6.36	88.9	11.1	34.9	60.3	15.9	200
	¾"	20NB	0.34	5.825	11.31	98.4	12.7	42.9	69.8	15.9	200
	1"	25NB	0.5301	9.100	17.67	107.9	14.3	50.8	79.4	15.9	200
	1 ¼"	32NB	0.87	14.91	28.95	117.0	14.0	64	78	14.0	200
	1 ½"	40NB	1.36	23.3	45.24	127.0	17.5	73	98.4	15.9	200
	2"	50NB	2.12	36.4	70.69	152.4	19.1	92.1	120.6	19.0	200
	2 ½"	65NB	3.58	61.52	119.46	177.8	22.2	104.8	139.7	19.0	200
	3"	80NB	5.43	93.19	180.96	190.5	23.8	127.0	152.4	19.0	200
	4"	100NB	8.48	145.61	282.74	228.6	23.8	157.2	190.5	19.0	250
	5"	125NB	13.25	227.52	441.79	254.0	23.8	185.7	215.9	22.2	250
	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

## Product Ordering Information :

Order Code for Flow Transmitter				
Sample Order Code : TX 1 B2 C1				
Parameter	Code	Description		
TX	Electronics Transmitter	TX 1	Field Mount Weather Proof IP67	
		TX 4	Flameproof (CMRI IIA IIB Certified)	
B	MOC Electronics Enclosure	B1	Aluminium Die Cast	
		B2	SS316	
Parameter	Code	Description		
C	Electrical Connection	C1	M20 *1.5 F	
		C2	1/2 Inch NPT F	
		C3	Pluggable Connector	
Note : In case of flameproof version only electronics enclosure is flameproof certified.				

Order Code for Flow Tube												
Sample Order Code : FT 15 F2 G1 H2 I2 J1 K1 L1 M2												
Parameter	Code	Description	Code	Description	Parameter	Code	Description					
FT	Flow Tube	FT 15	15 NB	FT 65	65 NB	K	Flange Standard and Rating	K1	ANSI 150 B16.5			
		FT 20	20 NB	FT 80	80 NB			K2	ANSI 300 B16.5			
		FT 25	25 NB	FT 100	100 NB			K3	ANSI 600 B 16.5			
		FT 32	32 NB	FT 125	125 NB			K4	DIN PN 10 EN 1092-1			
		FT 40	40 NB	FT 150	150 NB			K5	DIN PN 16 EN 1092-1			
		FT 50	50 NB	FT 200	200 NB			K6	DIN PN 25 EN 1092-1			
									K7	DIN PN 40 EN 1092-1		
F	Electronics Location	F1	Integral (Local)			L	MOC Rotor	KY	Other			
		F2	Remote					KX	NA			
G	Remote Cable Length	G1	5 Meter					L1	SS410	L1	SS410	
		G2	10 Meter							L2	17.4 PH	
		G3	15 Meter							LY	Other	
		GX	NA					M	Bearings Type	M1	Tungsten Carbide Sleeve Bearing	
H	Flow Tube Protection Class	H1	IP-67							M2	V Jewel Bearing	
		H2	IP-68							MY	Other	
I	Process Connection	I1	Threaded (15 to 50 NB)					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.				
		I2	Flanged (15 To 200 NB)									
		I3	Triclover (15 to 100 NB)									
		I4	SMS Union (25 to 100 NB)									
		IY	Other									
J	Material of construction Flow Tube	J1	SS304									
		J2	SS316									
		JY	Other									

## ELECTRONET EQUIPMENTS PVT. LTD.

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