FL 204

ELECTRONET™

FOUR WIRE TURBINE FLOW METER

Features

- 4 wire system
- Simple & Cost Effective Construction
- Suitable for Conductive and Non Conductive Liquids
- Local Display LED: 4 Digit Flow Rate, 8 Digit Totalised Value
- Batch / High / Low Relay contact output
- Easy Maintenance
- Protection Class : IP–66
- Remote Display optionally available

Description

Electronet series FL–204 are 4 wire 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 which is converted to electrical signal 4 – 20 mA .

Technical Specifications

Media	Liquids (Clear)
Line Size	15 NB to 300 NB
Electronics	Integral / Remote
Viscosity	100 cp max
Display	Display : 4 Digit, 0.3" Red LED for Flow Rate & 8 Digit, 0.3" Red LED for Totalised Flow
Pick off Type	Magnetic Sensor
Remote Electronics Cable	15 Meters Max.
Type of Output	1) 4 to 20 mA DC 2) Pulse (Open collector)
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 Temperature	–20 to 120 °C max.
Process Pressure	0 to 10 kg/cm^2 max
Material of construction	1) Bearings – Tungsten Carbide Sleeve / V Jewel / 17–4 PH
	2) Rotor – SS 410
	3) Shaft – Tungsten Carbide
	4) Body / Support / Flange – SS
Power Supply	1) 24 V DC 2) 230 V AC, 50 Hz +/– 10% (External Converter)
Power Consumption	< 1 VA
Certification	CE

Response Time	< 100 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
Operating Conditions	
Alarm Output	Potential free Relay Contact – Configurable for High / Low (1 c/o, 1 Amp.)
Batch Output	Potential free Relay Contact (1 c/o, 1 Amp.)
Note :– For process conditions other than above please consult factory.	

Assembly Overview

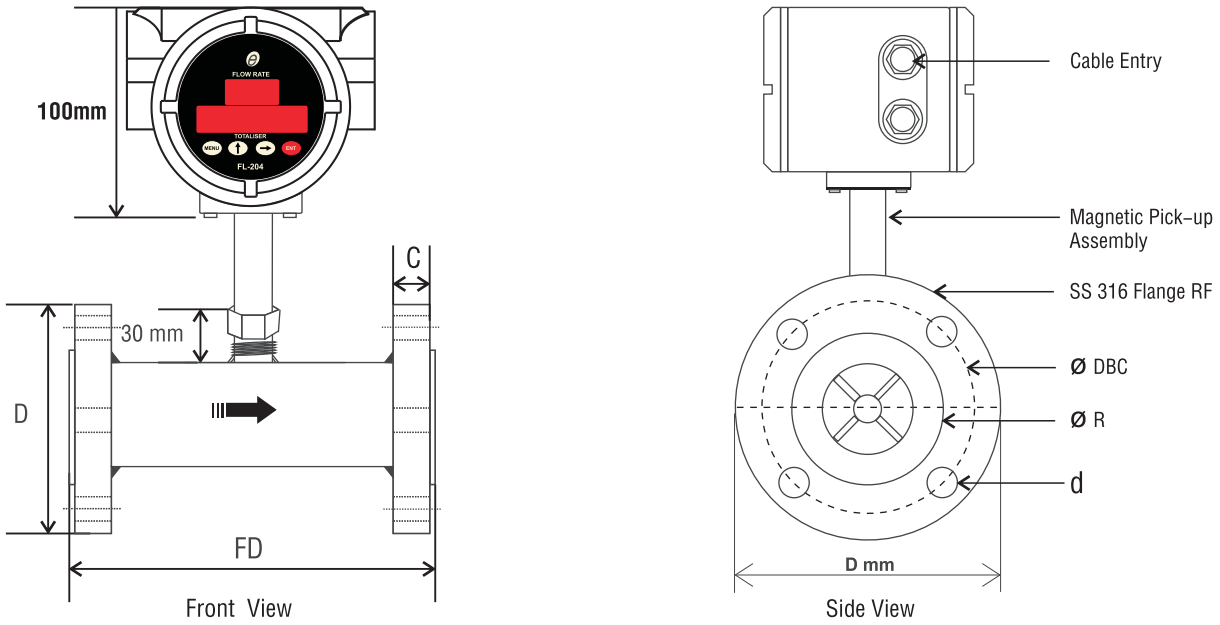

TABLE -1 : Dimensional Details Of Flange, as Per ANSI 150 # B-16.5

Line Size		Flow Range			Flange Details ANSI 150 (B 16.5)					
Inch	NB	0.3m/s (m^3/hr)	2m/s (m^3/hr)	10m/s (m^3/hr)	D	C	R	DBC	d	FD
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	192
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
2½"	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	300
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

Note :

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

No. of Holes:
For ½" to 3" = 4 Holes
4" to 6" = 8 Holes

*Typical mounting dimensions for reference only
*All dimensions are in 'mm'

Ordering Information

Sample Order Code : 01A–07B–09B–10B–15A–16B–22A–23B–24B–50B–51B–52A–66B–67C–70A–71A–72B–82A–83A

Parameter		Code	Value			
01	Line Size	01A	15 NB	01H	80 NB
		01B	20 NB	01I	100 NB
		01C	25 NB	01J	125 NB
		01D	32 NB	01K	150 NB
		01E	40 NB	01L	200 NB
		01F	50 NB	01M	250 NB
		01G	65 NB	01N	300 NB
07	Area Classification	07A	Weather Proof		
		07B	Flame Proof		
09	Electronics	09A	Integral		
		09B	Remote		
10	Remote Cable Length	10A	2 Meter		
		10B	5 Meter		
		10C	10 Meter		
		10D	15 Meter		
		10Z	NA		
15	Process Temperature	15A	–20 to 120 °C		
		15X	Other		
16	Process Pressure Range	16A	150 psi		
		16B	300 psi		
		16C	600 psi		
		16D	900 psi		
		16X	Other		
22	MOC Electronics Enclosure	22A	Die Cast Aluminium		
		22B	SS316		
		22C	ABS Plastic		
23	Cable Entry	23A	M20 X 1.5		
		23B	½" NPTF		
		23X	Other		
24	Power Supply	24A	90 – 250V AC		
		24B	24V DC		
50	Output 1	50A	4 to 20mA		
		50Y	None		

Parameter		Code	Value
51	Output 2	51A	Pulse
		51B	Freq (0 to 1 KHz)
		51Y	None
52	Alarm Output	52K	1 Alarm for High or Low
		52M	Batch or High or Low Alarm
		52Y	None
66	Process Connection	66A	Threaded
		66B	Flanged
		66E	Tri Clover
67	MOC Flange	67C	SS316
		67D	SS304
		67X	Other
		67Z	NA
70	Flange Standard	70A	ANSI
		70B	DIN
		70C	AWWA
		70X	Other
		70Z	NA
71	Flange Rating	71A	ANSI 150
		71B	ANSI 300
		71C	ANSI 600
		71D	DIN 10
		71E	DIN 16
		71F	DIN 40
		71X	Other
		71Z	NA
72	MOC Flow Tube	72B	SS304
		72D	SS316
		72X	Other
82	MOC Rotor	82A	SS410
		82X	Other
83	Bearings	83A	TG Sleeve
		83B	V Jewel
		83C	17–4PH
		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.

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

Registered Office:
Plot No. 84, 85, 86, Tiny Industrial Estate,
Kondhwa Budruk,
Pune–411 048, Maharashtra, India.

+91-20-26931476/2039 ho@eeplindia.com +91-20-26934122 www.eeplindia.com