

Features

- Ultrasonic Measurement using Transit Time Technology
- EMI / EMC Compliant
- Single / Dual / Quad beam technology for precise measurements
- Excellent Long Term Stability and Reliability
- Inline / Hot retractable sensor assembly
- Empty Pipe Indication
- Electronic Protection Class :
Field Mount Weather Proof IP-67,
DIN Standard (IP 54),
Flameproof (CMRI IIA IIB Certified)
- No Pressure Drop



Description

Electronet series ASIONIC² 200 is a micro-controller based full bore type Ultrasonic Flow Meter, specially used for various industrial applications. These flow meters accurately measures the flow rate of liquid in closed pipes. Due to its simple & rigid design, the flow meter is an obstruction-less and maintenance free instrument in place of conventional mechanical Flow measuring devices. The system is well suited to most of the environmental conditions. Programming of the flow meter is simple and can be accomplished with 4 keys available on instrument, it provides access to an extensive range of diagnostic information. ELECTRONET manufactures several flow meter consoles to meet the specific requirements of various applications.

Technical Specifications

Performance Characteristics		
Media	Sonically Conductive Liquids	
Line Size	15 NB to 1000 NB	
Electronics	1) Integral (Local) 2) Remote	
Viscosity	200 cP maximum	
Turbidity	Smaller than 10,000ppm (mg/ltr) with a low level of air bubble content	
Display	LCD Display - 6 digit for Flow Rate & 8 digit for Totalised Flow	
Calibration Range	As per requirement (Factory Calibrated)	
Acoustic Paths	Single, Dual & Four Path	
Accuracy	Single Path	
	Line Size	Accuracy
	50 to 600NB	< ± 0.5% of M.V. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	600 to 1000NB	< ± 1% of F.S. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	1000 to 2000NB	< ± 2% of F.S. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	Dual Path	
	Line Size	Accuracy
	80 to 600NB	< ± 0.3% of M.V. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	600 to 1000NB	< ± 0.5% of F.S. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	1000 to 2000NB	< ± 1.5% of F.S. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	Four Path	
	Line Size	Accuracy
	100 to 600NB	< ± 0.2% of M.V. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	600 to 1000NB	< ± 0.5% of M.V. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
	1000 to 2000NB	< ± 1% of F.S. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s

Technical Specifications

Linearity	± 0.5% of M.V.
Repeatability	± 0.2% of M.V.
Temperature Coefficient	± 0.05% per °C
Process Temperature	-20°C to 85°C maximum
Process Pressure	16 kg/cm ² maximum
Material of Construction	Flow tube - SS304, SS316, PVC & MS
Power Supply	1) 90 to 250 V AC, 50 Hz 2) 24V DC (+/-10%)
Communication Output	RS485 MODBUS RTU, GSM, GPRS
Output	4 to 20 mA, 4 to 20 mA with HART (Generic)
Response Time	Less than 1 Sec.
Electronic Protection Class	1) Field Mount Weather Proof IP-67 2) DIN Standard (IP 54) 3) Flameproof (CMRI IIA IIB Certified)
Process Connections	ANSI 150 Flanged (As per table B 16.5)
Ambient Conditions	Temperature -20 to 75°C / Humidity 5 to 95% Non Condensing
Data Logging	For 10 Years (Per day 1 Sample) - Optional
Sensor Pair	As per Requirement
Sensor MOC	SS316
Certification	CE

Line Size		Flange To Flange Distance	Flow Range (m ³ /Hr)			
Inch	NB		Velocity 0.3m/s	Velocity 2.5m/s	Velocity 6m/s	Velocity 10m/s
½"	15	200	0.19	1.59	3.81	6.36
¾"	20	200	0.34	2.83	6.785	11.31
1"	25	200	0.53	4.42	10.602	17.67
1¼"	32	200	0.87	7.24	17.371	28.95
1½"	40	200	1.36	11.31	27.143	45.24
2"	50	200	2.12	17.67	42.4115	70.69
2½"	65	200	3.58	29.86	71.675	119.46
3"	80	200	5.43	45.24	108.573	180.96
4"	100	250	8.48	70.69	169.646	282.74
5"	125	250	13.25	110.45	265.071	441.79
6"	150	300	19.09	159.04	381.703	636.17
8"	200	350	33.93	282.74	678.584	1130.97
10"	250	450	53.01	441.79	1060.28	1767.15
12"	300	500	76.34	636.17	1526.81	2544.69
14"	350	550	103.91	865.9	2078.16	3463.61
16"	400	600	135.72	1130.97	2714.33	4523.89
18"	450	600	171.77	1431.39	3435.33	5725.55
20"	500	600	212.06	1767.15	4241.15	7068.58
24"	600	600	305.36	2544.69	6107.25	10178.76
28"	700	700	415.63	3463.61	6650.12	13854.42
32"	800	800	542.87	4523.89	7481.39	18095.47
36"	900	900	687.07	5725.55	8312.65	22902.21
40"	1000	1000	848.23	7068.58	16964.6	28274.33

Note : Flange to flange distance (FD) Tolerance : 1) 1/2"(15NB) to 6"(150NB) : +/-3mm 2) 8"(200NB) to 40"(1000NB) : +/-5mm

- All dimensions are in 'mm'
- For dimensions of line size above 1000NB, please consult factory.
- Typical mounting dimensions are for reference only.
- Wet Calibrated at IEC/ISO/EN17025 Accredited Calibration Rig.
- Flow meter should be selected with the help of Nomograph (recommended full scale velocity).

Assembly Overview

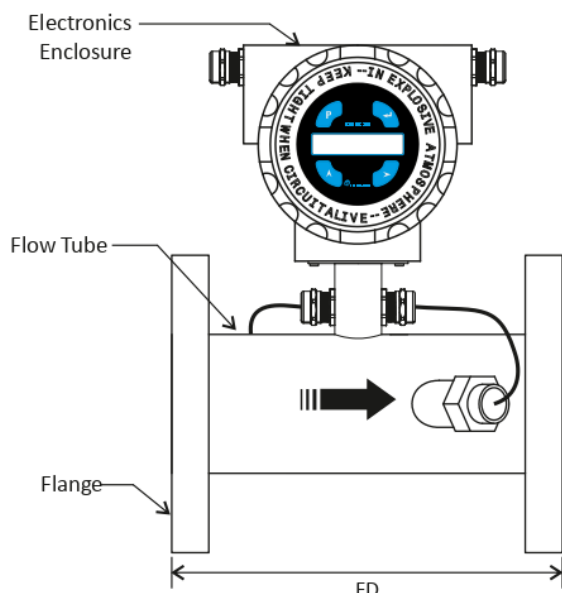


Fig. 1 Front View

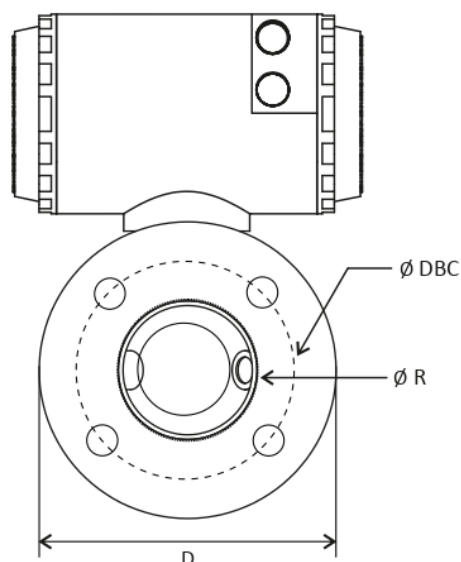


Fig. 2 Side View

Ordering Information for Flow Transmitter

Sample Order Code : ASIONIC 200-TX-A1-B1-C1-D1-E1-F1-G1-H1-I1-J1

Parameter		Code	Description
A	Transmitter/ Electronics Mounting	A1	Integral (Local)
		A2	Remote (Max. 5 Mtr.)
B	Power Supply	B1	24 VDC
		B2	230 VAC
C	Enclosure MOC	C1	Aluminium Die Cast
		C2	SS316
		CY	Other
D	Enclosure IP Rating	D1	IP 54
		D2	IP 67
		D3	IP 68
E	Hazardaious Certification Only For Electronics Enclosure	E1	ATEX
		E2	FF (CMRI 2A ,2B)
		EX	NA

Parameter		Code	Description
F	Electrical Connection	F1	M20
		F2	1/2 Inch NPT
		FY	Other
G	Electrical Output 1 (Current)	G1	4 to 20 mA
		G2	4 to 20 mA With HART
		GX	NA
H	Communication Output 1	H1	RS485 (MODBUS RTU)
		HX	NA
I	Communication Output 2	I1	GPRS
		I2	GSM
		I3	MBUS
		IX	NA
J	Pressure Sensor	J1	16 KG /Cm ²
		JX	NA

Ordering Information for Flow Tube

Sample Order Code : ASIONIC200- FT15-N1-O1-P1-Q1-R1-S1-T1-U1

Parameter		Code	Description	Code	Description
FT	Flow Tube	FT 15	15 NB	FT 250	250 NB
		FT 20	20 NB	FT 300	300 NB
		FT 25	25 NB	FT 350	350 NB
		FT 32	32 NB	FT 400	400 NB
		FT 40	40 NB	FT 450	450 NB
		FT 50	50 NB	FT 500	500 NB
		FT 65	65 NB	FT 600	600 NB
		FT 80	80 NB	FT 700	700 NB
		FT 100	100 NB	FT 800	800 NB
		FT 125	125 NB	FT 900	900 NB
		FT 150	150 NB	FT 1000	1000 NB
		FT 200	200 NB		
N	Spool Piece (Flow Tube)	N1	With Spool Piece		
		N2	Without Spool Piece		
O	Sensor Pair Mounting	O1	Fixed Inline		
		O2	Hot Retractable		
P	Electronics Location	P1	Integral (Local)		
		P2	Remote		
Q	Remote Cable Length	Q1	5 Meter		
		QY	Other		
		QX	NA		

Parameter		Code	Description
R	Process Connection	R1	Threaded (15 to 50 NB)
		R2	Flanged (15 To 1000 NB)
		R3	Triclover (15 to 100 NB)
		R4	SMS Union (25 to 100 NB)
S	Flange MOC	S1	MS
		S2	CS
		S3	SS304
		S4	SS316
		SX	NA
T	Flange Standard and Rating	T1	ANSI 150 B16.5
		T2	ANSI 300 B16.5
		T3	ANSI 600 B 16.5
		T4	DIN PN 10 EN 1092-1
		T5	DIN PN 16 EN 1092-1
		T6	DIN PN 25 EN 1092-1
		T7	DIN PN 40 EN 1092-1
		T8	IS 1538
		TY	Other
		TX	NA
U	Pressure Sensor	U1	16 KG /Cm²
		UX	NA

Note : • Due to our continuous product revisions, design specification & 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.
 • This product is meant for laboratory/Process application only and not for custody transfer application.

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