ASIONIC 100

TWO WIRE INLINE ULTRASONIC FLOW METER

ELECTRONET

Features

- Ultrasonic Measurement using Transit Time Technology
- 2 wire system with HART communication
- Full bore type
- Suitable for Conductive and Non Conductive Liquids
- Material option depending upon Process Data
- Local Indication through LCD Display
- Empty Pipe Indication
- Electronic Protection Class : Field Mount Weather Proof IP-67, Flameproof (CMRI IIA IIB Certified)
- Maintenance Free
- Options of Integral and Hot Retractable Sensor Assembly

Description

Electronet series ASIONIC® 100 are micro-controller based 2 wire full bore type ultrasonic flow transmitters specially used for various industrial applications. These flow transmitters accurately measure the flow rate of conductive/ non conductive liquids in closed pipes. Due to its simple and rigid design, the flow transmitter is an obstruction-less and maintenance-free instrument in place of conventional mechanical flow measuring device. The use of 'Transit Time' technology offers highest ability and better measuring accuracy in the form of electrical signal 4-20 mA DC linearly proportional to volumetric flow.

Technical Specifications

Media	Liquids
Line Size	15 NB to 600 NB with sensor spool piece
Electronics	1) Integral (Local) 2) Remote
Viscosity	200 cp maximum
Type of Output	4 to 20mA DC / 4 to 20mA DC with HART (Generic)
Display	LCD Display - 5 Digit for Flow Rate & 8 Digit for Totalised Flow
Calibration Range	As per requirement (Factory Calibrated for std. 2m/s velocity)
Accuracy	< ± 0.5 % of M.V. ± 5mm /sec for Velocity Range 0.3 m/s to 6 or 12 m/s
Linearity	± 0.5% of M.V.
Repeatability	± 0.2% of M.V.
Temperature Coefficient	± 0.05% per °C
Process Pressure	10 kg/cm² maximum
Material of Construction	Flange - MS / CS / SS304 / SS316 / PVC
	Sensor - SS 316
Power Supply	1) 24V DC 2) 24V DC Two Wire Loop Powered
Power Consumption	Less than 40mW
Response Time	Less than 10 Sec.
Electronic Protection Class	Field Mount Weather Proof IP-67, DIN Standard (IP 54), Flameproof (CMRI IIA IIB Certified)
Process Connections	ANSI 150 Flanged (As per table B 16.5) (Other On Requirement)
Mounting	In-Line Horizontal / Vertical
Ambient Conditions	Temperature -20 to 75°C / Humidity 5 to 95% Non Condensing
Certification	CE

Assembly Overview

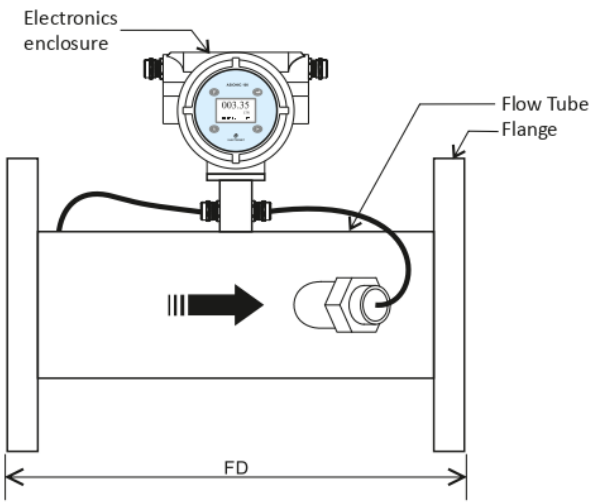

Fig. 1 Front View

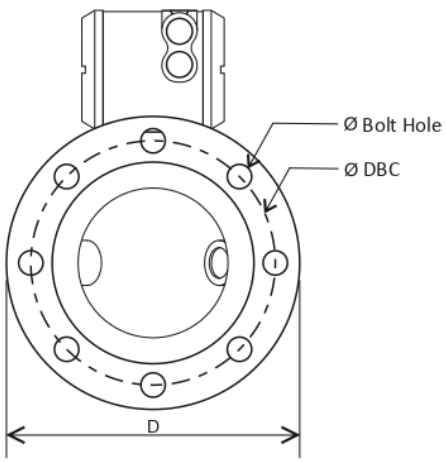

Fig. 2 Side View

Line Size		Flange To Flange Distance	Flow Range (m³/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

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 at IEC/ISO/EN17025 Accredited Calibration Rig.
- Flow meter should be selected with the help of Nomograph (recommended full scale velocity).

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Ordering Information for Flow Transmitter

Sample Order Code : ASIONIC 100-TX-A1-B1-C1-D1-E1-F1

	Parameter	Code	Description
A	Transmitter/ Electronics Mounting	A1	Integral (Local)
		A2	Remote (Max. 5 Mtr.)
B	Enclosure MOC	B1	Aluminium Die Cast
		B2	SS316
		BY	Other
C	Enclosure IP Rating	C1	IP 54
		C2	IP 67
		C3	IP 68

	Parameter	Code	Description
D	Hazardaious Certification Only For Electronics Enclosure	D1	ATEX
		D2	FF (CMRI 2A ,2B)
		DX	NA
E	Electrical Connection	E1	M20
		E2	1/2 Inch NPT
		EY	Other
F	Electrical Output 1 (Current)	F1	4 to 20 mA
		F2	4 to 20 mA with HART
		FX	NA

Ordering Information for Flow Tube

Sample Order Code : ASIONIC100- FT15-N1-O1-P1-Q1-R1-S1-T1

	Parameter	Code	Description	Code	Description
FT	Flow Tube	FT 15	15 NB	FT 150	150 NB
		FT 20	20 NB	FT 200	200 NB
		FT 25	25 NB	FT 250	250 NB
		FT 32	32 NB	FT 300	300 NB
		FT 40	40 NB	FT 350	350 NB
		FT 50	50 NB	FT 400	400 NB
		FT 65	65 NB	FT 450	450 NB
		FT 80	80 NB	FT 500	500 NB
		FT 100	100 NB	FT 600	600 NB
		FT 125	125 NB		

	Parameter	Code	Description
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 200 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

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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