

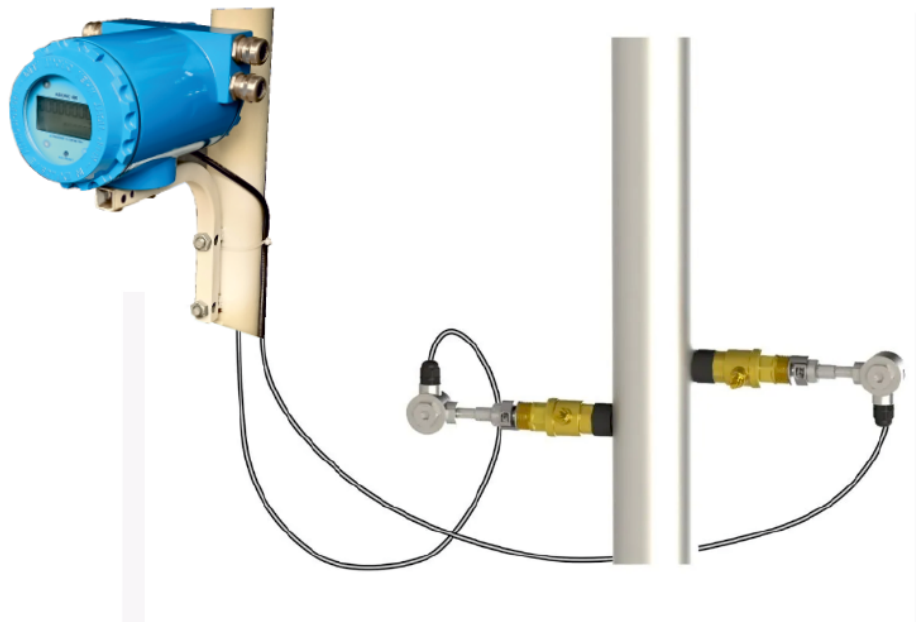
ASIONIC 400

ULTRASONIC FLOW METER



Features

- Ultrasonic Measurement using Transit Time Technology
- Full Bore Type
- Local Indication through LCD Display
- Simple and Cost Effective Construction
- Empty Pipe Indication
- Automatic Meter Reading option over GSM, GPRS & RF
- Electronic Protection Class : Field Mount Weather Proof IP-67, DIN Standard (IP 54), Flameproof (CMRI IIA IIB Certified)
- Leak, Burst and Tamper Detection
- No Pressure Drop



Description

Electronet series ASIONIC®-400 Ultrasonic flow meters give the flexibility to install a reliable flow meter, virtually anywhere, without distorting accuracy and performance. The flow meter is extremely easy to use, simple to install and requires no regular maintenance. The product is engineered for various industrial as well as domestic applications such as Municipal and Industrial Water applications, Cooling tower, Water treatment, etc. The LCD display provides indication for flow rate and totalized flow with key selection. The display auto shuts off after 10 minutes, which increases the battery life in case of battery powered flow meter. The display can be turned ON by pressing the 'enter' key.

Technical Specifications

Performance Characteristics	
Media	Liquids
Line Size	15 NB to 600 NB
Number Of Paths	Single
Electronics	1) Integral (Local) 2) Remote
Output	4 to 20 mA DC, Pulse (Open Collector), Frequency (0 to 1 KHz)
Communication Output	RS 485 (MODBUS RTU), GSM, GPRS & RF
Viscosity	200 cP maximum
Display	LCD Display - 7 digit for Flow Rate & 8 digit for Totalised Flow
Calibration Range	As per requirement (Factory Calibrated)
Accuracy	$< \pm 0.5\%$ of M.V. $\pm 5\text{mm/sec}$ for Velocity Range 0.3 m/s to 6 or 12 m/s
Linearity	$\pm 0.5\%$ of M.V.
Repeatability	$\pm 0.2\%$ of M.V.
Temperature Coefficient	$\pm 0.05\%$ per $^{\circ}\text{C}$
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	24V DC (+/-10%), Solar Powered
Low Battery indication	Provided
Battery Life	5 to 10 Years depending on sampling time and communication interval
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	ASA 150 Flanged (As per table B 16.5)
Ambient Conditions	Temperature -20 to 70°C / Humidity 5 to 95% Non Condensing
Data Logging	For 5 Years (Per day 1 Sample)
Certification	CE

Assembly Overview

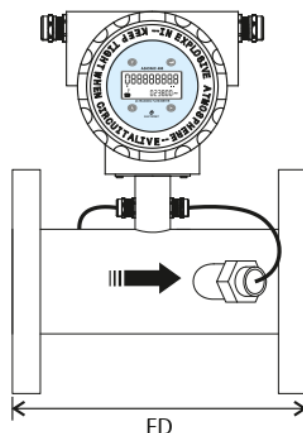


Fig. 1 Front View

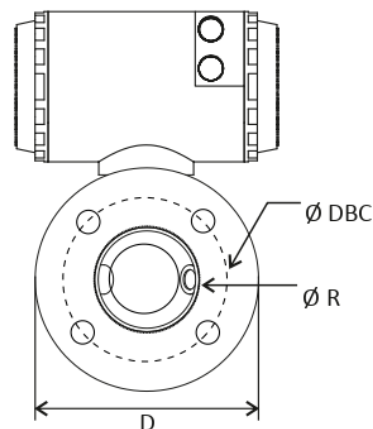


Fig. 2 Side View

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).

Ordering Information for Flow Transmitter

Sample Order Code : ASIONIC 400-TX-A1-B1-C1-D1-E1-F1-G1-H1-I1-J1

Parameter		Code	Description	Parameter		Code	Description
A	Transmitter/ Electronics Mounting	A1	Integral (Local)	F	Hazardaious Certification Only For Electronics Enclosure	F1	ATEX
		A2	Remote (Max. 5 Mtr.)			F2	FF (CMRI 2A ,2B)
B	Power Supply	B1	Battery Operated			FX	NA
		B2	3.6 V Solar Operated				
C	Battery back up Time	C1	2 Years Two times communication per day	G	Electrical Connection	G1	M20
		C2	5 Years Two times communication per day			G2	1/2 Inch NPT
		C3	3.6 V Solar Operated 1 Month			GY	Other
D	Enclosure MOC	D1	Aluminium Die Cast	H	Electrical Output 2 (Pulse)	H1	Pulse (Open Collector)
		D2	SS316			HX	NA
		DY	Other				
E	Enclosure IP Rating	E1	IP 54	I	Communication Output 1	I1	RS485 (MODBUS RTU)
		E2	IP 67			IX	NA
		E3	IP 68	J	Communication Output 2	J1	GPRS
		J2	GSM				
		J3	Dual SIM GPRS				
		J4	MBUS				
		JX	NA				

Ordering Information for Flow Tube

Sample Order Code : ASIONIC400- FT15-N1-O1-P1-Q1-R1-S1-T1-U1

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		
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		
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. • This product is meant for laboratory/Process application only and not for custody transfer application.					

Parameter		Code	Description
R	Process Connection	R1	Threaded (15NB to 50NB)
		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		
U	Pressure Sensor	U1	16 KG /Cm ²
		UX	NA

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