

ASIONIC 400-4

MULTIPATH ULTRASONIC FLOW METER



Features

- Full bore ultrasonic flow meter for liquid flow measurement
- Transit time sensing technology
- Four path chordal design for optimal linearity and repeatability
- Empty pipe indication and partial flow measurement
- High accuracy $\pm 0.2\%$ of measured value
- Negligible pressure drop
- Optional Pressure & Temperature measurement
- IOT enabled device
- Wet calibration at ISO17025-2017
NABL (ILAC) ACCREDITED CALIBRATION LABORATORY
- Suitable for clean conductive / non conductive liquids



Description

Electronet series ASIONIC[®] 400-4 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.

Technical Specifications

Performance Characteristics	
Media	Sonically Conductive Liquids
Media	Liquids
Line Size	15 NB to 1000 NB
Electronics	1) Integral (Local) 2) Remote
Output	4 to 20mA DC, Pulse (Open Collector)
	Frequency (0 to 1 KHz)
Communication Output	RS485 (MODBUS RTU), GSM, GPRS & RF
Viscosity	200 cp maximum
Display	LCD Display - 6 digit for Flow Rate & 8 digit for Totalised Flow
Calibration Range	As per requirement (Factory Calibrated)
Accuracy	$< \pm 0.2\%$ of M.V. $\pm 3\text{mm/sec}$ for Velocity Range 0.3 m/s to 6 or 12 m/s
Linearity	$\pm 0.2\%$ of M.V.
Repeatability	$\pm 0.1\%$ of M.V.
Temperature Coefficient	$\pm 0.05\%$ per °C
Process Temperature	-20°C to 85°C maximum
Process Pressure	16 kg/cm ² maximum Higher on Request
Material of Construction	Flow tube - SS304, SS316
Power Supply	230 V AC / 24V DC (+/-10%)
Low Battery indication*	Provided
Battery Life*	5 to 10 Years depending on sampling time
Response Time	Less than 10 Sec.
Electronic Protection Class	Field Mount Weather Proof IP-67
	DIN Standard (IP 54)
	Flameproof (CMRI IIA IIB Certified)
Flow Tube	IP-68
Process Connections	ASA 150 Flanged (As per table B 16.5) Other on requirement
Ambient Conditions	Temperature -20 to 70°C / Humidity 5 to 95% Non Condensing
Data Logging	For 10 Years (Per day 1 Sample)
Certification	CE

* Note: Applicable for Battery Operated.

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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 - Electronics

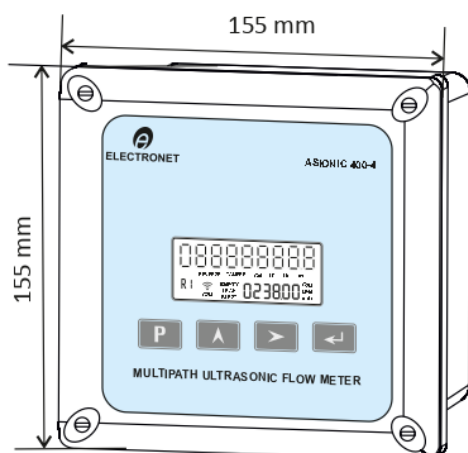


Fig.1 Front View

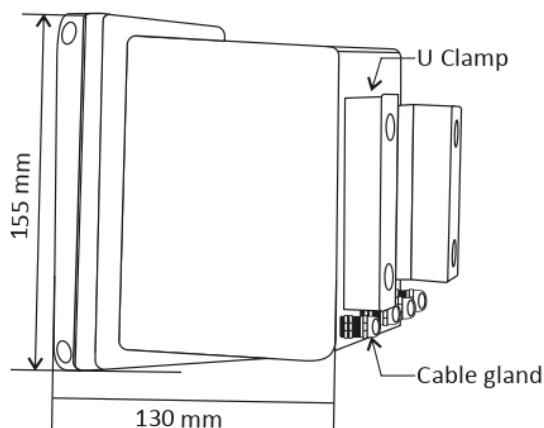


Fig.2 Side View

ASIONIC 400-4

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Assembly Overview - Flow Tube

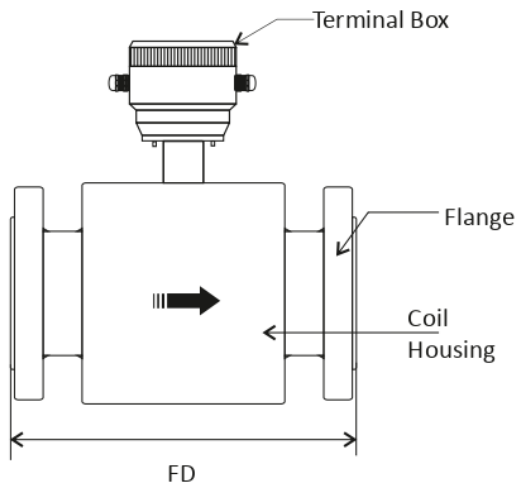


Fig.3 Front View

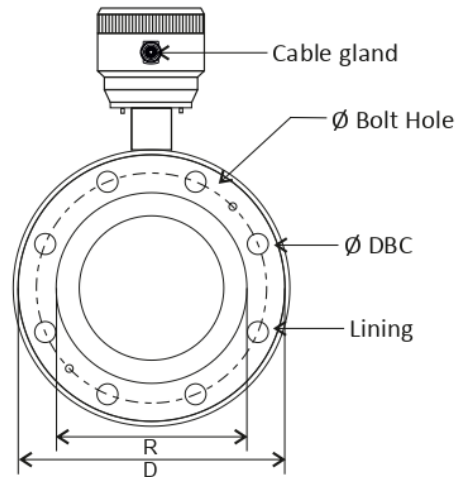


Fig.4 Side View

General Arrangement Drawing

MAINS / 24V DC POWERED

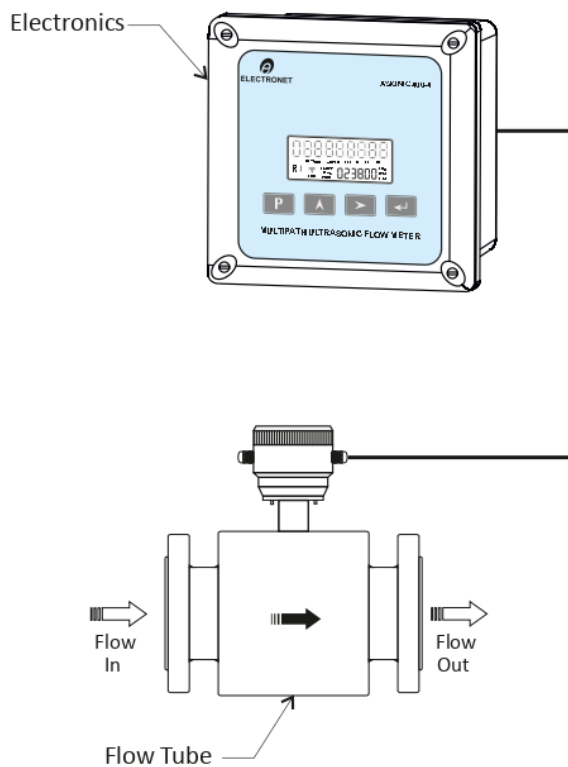


Fig.5 Front View

SOLAR POWERED

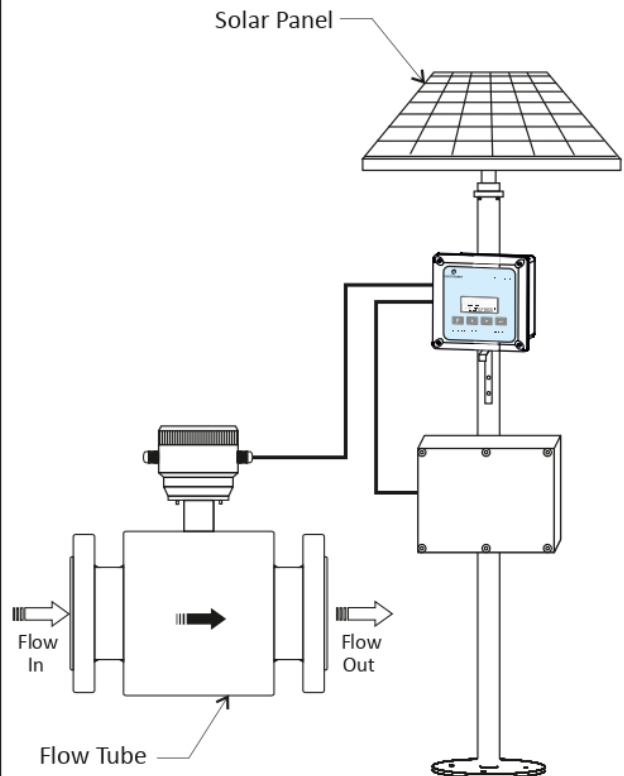


Fig.6 Front View

Ordering Information for Flow Transmitter

Sample Order Code : ASIONIC 400-4-TX-A1-B1-C1-D1-E1-F1-G1-H1-I1-J1-K1-L1-M1

Parameter		Code	Description
A	Transmitter/ Electronics Mounting	A1	Integral (Local)
		A2	Remote (Max. 5 Mtr.)
B	Number of Path	B1	Single
		B2	Dual
		B3	Three
		B4	Four
C	Power Supply	C1	24 VDC
		C2	230 VAC
D	Enclosure MOC	D1	Aluminium Die Cast
		D2	SS316
		DY	Other
E	Enclosure IP Rating	E1	IP 54
		E2	IP 67
		E3	IP 68
F	Hazardaious Certification Only For Electronics Enclosure	F1	ATEX
		F2	FF (CMRI 2A ,2B)
		FX	NA
Note : • In case of flameproof version only electronics enclosure is flameproof certified. • Features Available with external power supply not with battery operated.			

Parameter		Code	Description
G	Electrical Connection	G1	M20
		G2	1/2 Inch NPT
		GY	Other
H	Electrical Output 1 (Current)	H1	4 to 20 mA
		H2	4 to 20 mA With HART
		HX	NA
I	Electrical Output 2 (Pulse)	I1	Pulse (Open Collector)
		IX	NA
J	Electrical Output 3 (Alarm /Relay)	J1	One Alarm
		J2	Two Alarm
		JX	NA
K	Alarm Type	K1	Open Collector (Passive)
		K2	Potential Free
		K3	PNP Output (Active)
		KX	NA
L	Communication Output 1	L1	RS485 (MODBUS RTU)
		LX	NA
M	Communication Output 2	M1	GPRS
		M2	GSM
		M3	Dual SIM GPRS
		M4	MBUS
		MX	NA

Ordering Information for Flow Tube

Sample Order Code : ASIONIC 400-4- FT15-N1-FT15-O1-P1-Q1-R1-S1-T1-U1-V1

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	Number of Path	O1	Single		
		O2	Dual		
		O3	Three		
		O4	Four		
P	Sensor Pair Mounting	P1	Fixed Inline		
		P2	Hot Retractable		
Q	Electronics Location	Q1	Integral (Local)		
		Q2	Remote		
R	Remote Cable Length	R1	5 Meter		
		RY	Other		
		RX	NA		

Parameter		Code	Description
S	Process Connection	S1	Threaded (15 to 50 NB)
		S2	Flanged (15 To 200 NB)
		S3	Triclover (15 to 100 NB)
		S4	SMS Union (25 to 100 NB)
T	Flange MOC	T1	MS
		T2	CS
		T3	SS304
		T4	SS316
		TX	NA
U	Flange Standard and Rating	U1	ANSI 150 B16.5
		U2	ANSI 300 B16.5
		U3	ANSI 600 B 16.5
		U4	DIN PN 10 EN 1092-1
		U5	DIN PN 16 EN 1092-1
		U6	DIN PN 25 EN 1092-1
		U7	DIN PN 40 EN 1092-1
		U8	IS 1538
		UY	Other
		UX	NA
V	Pressure Sensor	V1	16 KG /Cm ²
		VX	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 & not for custody transfer application.

ELECTRONET EQUIPMENTS PVT. LTD.

Registered Office:

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