

## GENERAL

**ALIATARGET** The Alia ATF80 Smart Target Flowmeters revolutionizes the target deflection method of measuring flow. The target displacement is precisely measured by capacitance sensors. The resultant signal is then digitally processed via surface-mount, industrial signal processing to Produce a 4-20mA output proportional to the volumetric flow rate. Smart Target Flowmeter are suitable for low-velocity & high-temp. gas, steam flowrate. Re-ranging the meter is as simple as changing the target. There is no need to change the whole meter.

## FEATURES

- ❑ Measure low velocity less than 0.1 m/s
- ❑ Measure high-temp., low-press. and low-velocity flare gas.
- ❑ 4-20 mA output Hart communication
- ❑ Low Pressure drop
- ❑ The Max. temperature can be up to 450 °C
- ❑ Online calibration by Alia unique software
- ❑ Insertion Type or Hot-Tap Type available for large pipeline

## STANDARD SPECIFICATION

- |                       |   |                    |  |
|-----------------------|---|--------------------|--|
| ● Size                | : 15, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300.....6000(mm)                         | ● Local Display    | : 4 lines LCD (with backlight)<br>: 5 digit flowrate<br>: 8 digit Totalizer              |
| ● Measuring Range     | : Steam: 0.002 ~ 3400000 Ton/Hr<br>: Gas: 1 ~ 3280000 NM3/Hr<br>: Liquid: 0.1 ~ 55800 M3/Hr         | ● Current Output   | : 4-20 mA 2 wire<br>Load : Rohm=(Vdc-10)*50  |
| ● Material            | : Stainless Steel 304 / 316   | ● Alarm Function   | : High / Low Alarm   |
| ● Accuracy            | Wafer / Flange Type : +/-0.75% of reading<br>Insertion Type : +/-1.6% of reading                    | ● Turndown Ratio   | : 15:1   |
| ● Repeatability       | : +/-0.05%FS  | ● Communication    | : Hart signal (Compatible)   |
| ● Multi Flow Range    | : 1- 3 flow range   | ● Data Storage     | : Operation parameters and totalizer figures are stored by EEPROM for more than 10 years |
| ● Process Connection  | : Flange / Wafer / Insertion  | ● Housing Material | : Aluminum Alloy   |
| ● Flanges Type        | : JIS 10K / JIS 20K / JIS 40K<br>ANSI 150# / ANSI 300# / ANSI 600#<br>PN 10 / PN 16 / PN25 / PN 40  | ● Cable Entry      | : Standard :M20 Option:1/2"NPTF  |
| ● Ambient Temperature | : -25 to +70 °C   | ● Power Supply     | : 10-32 VDC  |
| ● Temperature Effect  | : ≤±1% per 50 °C  | ● Power Effect     | : ≤0.01% / V   |
| ● Max. Pressure       | : 100 Bar   | ● Keypad           | : 3 internal keys for programming and display control                                    |
| ● Working Temperature | Flange / Wafer : -60 to 450 °C<br>Insertion : -60 to 450 °C<br>Hot Tap (Retractable) : -20 to 80 °C | ● Low Flow Cutoff  | : 0 to 20%   |
|                       |   | ● Damping          | : 0 to 32 seconds  |
|                       |   | ● Protection Class | : IP 67<br>: Explosion Proof, Exd IIC T6<br>: Intrinsically Safe, E ex ia IIC T4         |



**FLOW RANGE**

Unit : AM3/Hr

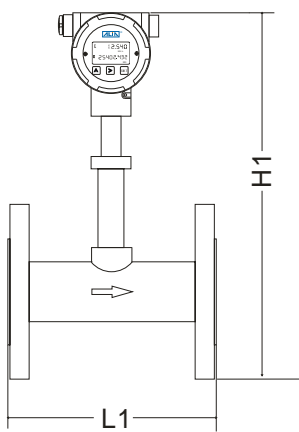
Normal Size		Flow Range							
mm	Inch	Water				Air			
		Min. Range		Max. Range		Min. Range		Max. Range	
		0.1m/s	to 1.5m/s	1m/s	to 15m/s				
15	1/2"	0.06	to 0.95	0.64	to 9.5	1.53	to 23.0	3.4	to 50.9
20	3/4"	0.11	to 1.7	1.1	to 17.0	1.40	to 21.0	6.0	to 90.5
25	1"	0.18	to 2.7	1.8	to 26.5	1.33	to 20.0	9.4	to 141
32	1-1/4"	0.29	to 4.3	2.9	to 43.4	1.27	to 19.0	15.3	to 232
40	1-1/2"	0.45	to 6.8	4.5	to 67.9	1.23	to 18.5	24.0	to 362
50	2"	0.71	to 10.6	7.1	to 106	1.20	to 18.0	37.5	to 565
65	2-1/2"	1.2	to 17.9	11.9	to 179	1.2	to 17.6	63.3	to 956
80	3"	1.8	to 27.1	18.1	to 271	1.8	to 27.1	95.9	to 1448
100	4"	2.8	to 42.4	28.3	to 424	2.8	to 42.4	150	to 2262
125	5"	4.4	to 66.3	44.2	to 663	4.4	to 66.3	234	to 3534
150	6"	6.4	to 95.4	63.6	to 954	6.4	to 95.4	337	to 5089
200	8"	11	to 170	113	to 1696	11	to 170	599	to 9048
250	10"	18	to 265	177	to 2651	18	to 265	937	to 14137
300	12"	25	to 382	254	to 3817	25	to 382	1349	to 20357
350	14"	35	to 520	346	to 5195	35	to 520	1836	to 27708
400	16"	45	to 679	452	to 6786	45	to 679	2398	to 36190
450	18"	57	to 859	573	to 8588	57	to 859	3034	to 45803
500	20"	71	to 1060	707	to 10603	71	to 1060	3746	to 56547

Unit : Kg/Hr

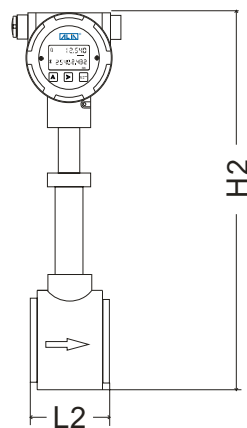
Normal Size		Saturated Steam							
mm	Inch	3 BarG				7 BarG			
		Min. Range		Max. Range		Min. Range		Max. Range	
15	1/2"	5.3	to 80.0	7.3	to 110	7.3	to 110	14.1	to 212
20	3/4"	4.7	to 71.0	13	to 196	6.5	to 97	25.0	to 377
25	1"	4.5	to 67.0	20	to 307	6.1	to 92	39.1	to 590
32	1-1/4"	4.3	to 65.0	33	to 503	5.8	to 87	64.0	to 966
40	1-1/2"	4.2	to 63.0	52	to 785	5.7	to 85	100	to 1509
50	2"	4.1	to 61.0	81	to 1227	5.5	to 83	156	to 2358
65	2-1/2"	4.0	to 60.0	137	to 2074	5.5	to 82	264	to 3985
80	3"	3.9	to 58.9	208	to 3141	7.5	to 113	400	to 6037
100	4"	6.1	to 92.0	325	to 4908	11.8	to 177	625	to 9432
125	5"	9.6	to 144	508	to 7669	18.4	to 276	976	to 14738
150	6"	13.8	to 207	732	to 11044	26.5	to 398	1406	to 21222
200	8"	24.5	to 368	1301	to 19633	47.2	to 707	2500	to 37728
250	10"	38.3	to 575	2032	to 30677	73.7	to 1105	3905	to 58951
300	12"	55.2	to 828	2927	to 44175	106	to 1592	5624	to 84889
350	14"	75.2	to 1127	3983	to 60127	144	to 2166	7655	to 115543
400	16"	98.2	to 1472	5203	to 78533	189	to 2830	9998	to 150914
450	18"	124	to 1864	6585	to 99394	239	to 3581	12654	to 191000
500	20"	153	to 2301	8129	to 122708	295	to 4421	15622	to 235803

**➤ DIMENSIONS**

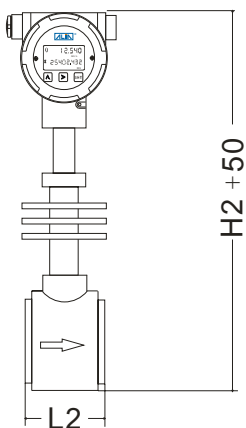
Normal Size		Unit:mm			
mm	Inch	L1	L2	H1	H2
15	1/2"	150	66	422	435
20	3/4"	150	66	429	440
25	1"	150	66	437	445
32	1-1/4"	150	66	445	452
40	1-1/2"	150	66	454	460
50	2"	150	66	471	470
65	2.6"	200	66	491	485
80	3"	200	66	505	500
100	4"	200	66	534	520
125	5"	200	66	560	545
150	6"	200	66	585	570
200	8"	200	66	641	620
250	10"	200	66	698	670
300	12"	200	66	761	720



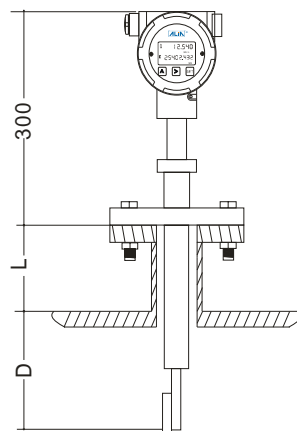
Flange Type



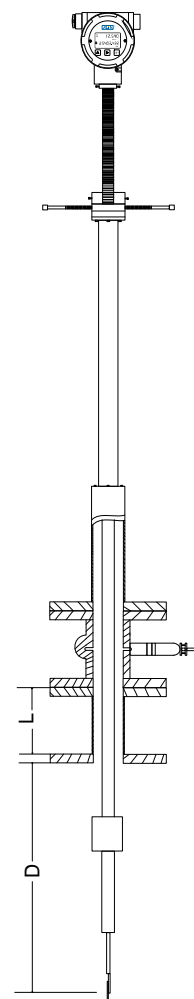
Wafer Type



High Temp. Type



Insertion Type



Hot Tap

**MODEL SELECTION GUIDE**

ATF80 Series											
Example:ATF80-F0150H-6A-H1NNN-HT											
ATF80-	X	XXXX	X	- X	X	- X	X	X	XX	- XX	Description
Type	W										Wafer Type ( DN15~DN300)
	F										Flange Type ( DN15~DN300)
	I										Insertion Type ( DN100~DN6000)
Size	0015 ~ 6000										15 ~ 6000mm (0.5" ~ 240")
Installation	H										Horizontal Pipe
	V										Vertical Pipe
Material	- 4										SUS 304 (Stainless Steel 304)
	- 6										SUS 316 (Stainless Steel 316)
Process Connection	N										Wafer Type
	1										PN10
	2										PN16
	3										PN25
	4										PN40
	A										ANSI 150 #
	B										ANSI 300 #
	C										ANSI 600 #
	J										JIS 10K
	K										JIS 20K
	L										JIS 40K
Z										Others	
Max. Temperature	- L										-20 to +150 °C (Wafer / Flange / Insertion)
	- M										-40 to +300 °C (Wafer / Flange / Insertion)
	- H										-60 to +450 °C (Wafer / Flange / Insertion)
	- R										-20 to +80 °C (Hot Tap)
Multi Flow Range Calibration	1- 3										One Range / Two Range / Three Range (Standard is 1)
Protection Class	N										Intrinsically Safe, Eex ia IIC T4
	X										Explosion Proof, Ex d IIC T6
Installation & Cable Length	NN										Compact
	03- 10										Remote Type with 3 - 10 Meter Cable
Option	- NN										None
	- HT										Hart Signal (Compatible)
	- HO										Hot Tap (Retractable Probe Mounting)
	- BV										Ball Valve (For Insertion / Hot Tap Type)
	- PT										Cable Entry 1/2" NPTF
	- ZZ										Others

**For Insertion and Hot Tap Mounting the following information must be provided:**

1. Pipe Inside Diameter(ID)
2. Pipe Outside Diameter(OD)
3. Pipe Material
4. Flange Size
5. Extension Length (L)
6. Fluid Name
7. Op. Temperature
8. Op. Pressure
9. Flow Range

