

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)
- Measuring Range : Steam: 0.002 ~ 3400000 Ton/Hr
: Gas: 1 ~ 3280000 NM3/Hr
: Liquid: 0.1 ~ 55800 M3/Hr
- Material : Stainless Steel 304 / 316
- Accuracy
Wafer / Flange Type : +/-0.75% of reading
Insertion Type : +/-1.6% of reading
- Repeatability : +/-0.05%FS
- Multi Flow Range : 1- 3 flow range
- Process Connection : Flange / Wafer / Insertion
- Flanges Type : JIS 10K / JIS 20K / JIS 40K
ANSI 150# / ANSI 300# / ANSI 600#
PN 10 / PN 16 / PN25 / PN 40
- Ambient Temperature : -25 to +70 °C
- Temperature Effect : ≤±1% per 50 °C
- Max. Pressure : 100 Bar
- Working Temperature
Flange / Wafer : -60 to 450 °C
Insertion : -60 to 450 °C
Hot Tap (Retractable) : -20 to 80 °C



- Local Display : 4 lines LCD (with backlight)
: 5 digit flowrate
: 8 digit Totalizer
- Current Output : 4-20 mA 2 wire
Load : $R_{ohm} = (V_{dc} - 10) * 50$
- Alarm Function : High / Low Alarm
- Turndown Ratio : 15:1
- Communication : Hart signal (Compatible)
- Data Storage : Operation parameters and totalizer figures are stored by EEPROM for more than 10 years
- Housing Material : Aluminum Alloy
- Cable Entry : Standard :M20 Option:1/2"NPTF
- Power Supply : 10-32 VDC
- Power Effect : ≤0.01% / V
- Keypad : 3 internal keys for programming and display control
- Low Flow Cutoff : 0 to 20%
- Damping : 0 to 32 seconds
- Protection Class : IP 67
: Explosion Proof, Exd IIC T6
: Intrinsically Safe, E ex ia IIC T4



FLOW RANGE

Unit : AM3/Hr

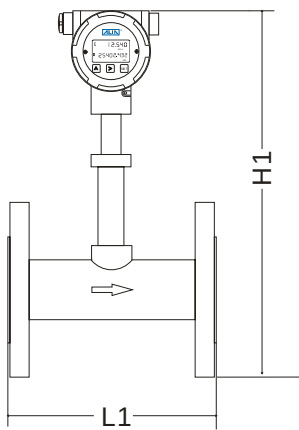
Normal Size		Flow Range									
mm	Inch	Water						Air			
		Min. Range			Max. Range			Min. Range		Max. Range	
		0.1m/s	to	1.5m/s	1m/s	to	15m/s				
15	1/2"	0.06	to	0.95	0.64	to	9.5	1.53	to	23.0	3.4 to 50.9
20	3/4"	0.11	to	1.7	1.1	to	17.0	1.40	to	21.0	6.0 to 90.5
25	1"	0.18	to	2.7	1.8	to	26.5	1.33	to	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

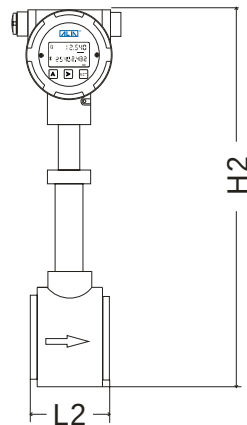
Normal Size		Saturated Steam											
mm	Inch	3 BarG					7 BarG						
		Min. Range		Max. Range			Min. Range		Max. Range				
15	1/2"	5.3	to	80.0	7.3	to	110	7.3	to	110	14.1	to	212
20	3/4"	4.7	to	71.0	13	to	196	6.5	to	97	25.0	to	377
25	1"	4.5	to	67.0	20	to	307	6.1	to	92	39.1	to	590
32	1-1/4"	4.3	to	65.0	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

7 DIMENSIONS

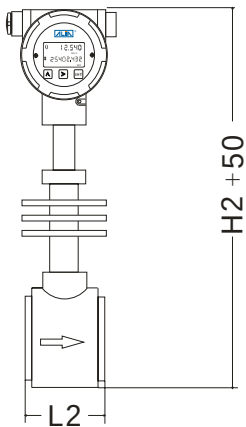
Normal Size		Unit:mm			
mm	Inch	L1	L2	H1	H2
15	1/2"	150	66	422	435
20	3/4"	150	66	429	440
25	1"	150	66	437	445
32	1-1/4"	150	66	445	452
40	1-1/2"	150	66	454	460
50	2"	150	66	471	470
65	2.6"	200	66	491	485
80	3"	200	66	505	500
100	4"	200	66	534	520
125	5"	200	66	560	545
150	6"	200	66	585	570
200	8"	200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



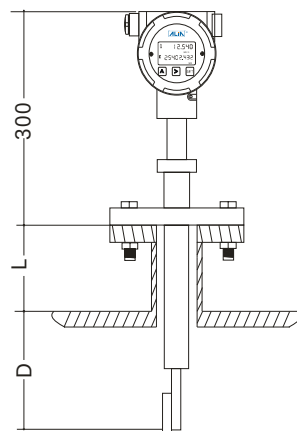
Flange Type



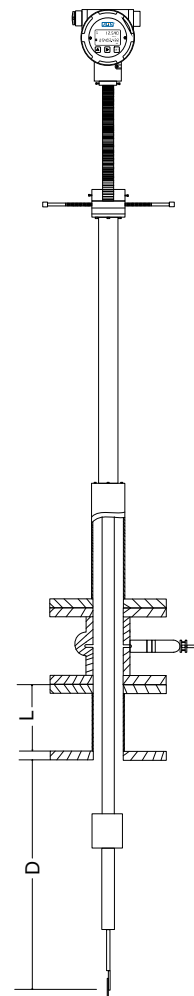
Wafer Type



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

