



GENERAL

ALIAVA The Alia AVF250 flowmeter is commonly used in location that required on-site analog flow indication.

The meter accurately measures small volumes/wide ranges of liquids, gases and steam.

FEATURES

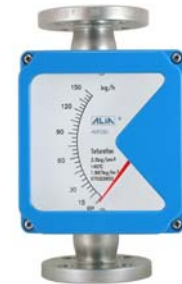
- ❑ 4 digit flowrate & 8 digit totalizer
- ❑ Local indication without auxiliary power
- ❑ 4-20 mA & scale pulse output
- ❑ Low pressure loss on gas and steam application
- ❑ Damper for Gas/Steam application
- ❑ Consistent overall length
- ❑ Heating jacket design
- ❑ Intrinsically safe & explosion proof for hazardous area

STANDARD SPECIFICATION

- | | | | |
|---------------------|----------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------|
| ● Size | : 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 8" | ● Local Display | : Mechanical Indicator (Standard) |
| ● Measuring Range | : Liquid - 0.004 ~ 880 USGPM | Digit Display | : 4 Digit Flowrate |
| | : Gas - 0.018 ~ 2354 ft ³ /m | | : 8 Digit Totalizer |
| ● Turndown Ratio | : 10:1 (20:1 Optional) | ● Current Output | : 4-20 mA (2 Wire) |
| ● Accuracy | : +/-1.6% (Standard) | Load | : Max. 600 Ω |
| | : +/-1.0% (Optional) | ● Pulse Output | : Open collector (Scale pulse) |
| ● Repeatability | : +/-0.5% value of reading | Rating | : 3 to 30Vdc, 100 mA Max. |
| ● Material | | ● Data Storage | : Operation parameters and totalizer figures are stored by EEPROM for more than 10 years |
| Tube & Float | : Stainless Steel 304 | ● Alarm output | : 2 point (Open collector) |
| | : Stainless Steel 316 | Rating | : 3 to 30Vdc, 100 mA Max. |
| | : Stainless Steel 316L | ● Keyboard | : 3 internal keys for programming and display control |
| | : Stainless Steel + PTFE Liner | ● Ambient Temperature | : -13 to +140 ° F (-25 to +60 ° C) |
| ● Standard Pressure | : 569 psi (1/2" ~ 2") / (15mm~50mm) | ● Protection Class | : IP 65 |
| | : 228 psi (2-1/2" ~ 8") / (65mm~200mm) | | : Intrinsically Safe, Eex ia IIC T5 |
| ● Temperature | : -112 ~ +392 ° F (-80 ~ +200 ° C)(Standard) | | : Explosion Proof, Ex d IIB T6 |
| | : -13 ~ +212 ° F (-25 ~ +100 ° C)(LCD Display) | ● Housing Material | : Aluminum Alloy |
| | : +32 ~ +185 ° F (0 ~ +85 ° C)(PTFE Liner) | ● Cable Entry | : Standard :M20 Option: 1/2"NPTF |
| | : -112 ~ +752 ° F (-80 ~ +400 ° C)(Optional) | ● Pressure Loss | : 1 ~ 10 psi |
| ● Flange Type | : JIS 10K / JIS 20K / JIS 40K | ● Power Supply | : 11 ~ 36VDC (2 wire 4-20 mA) |
| | ANSI 150# / ANSI 300# / ANSI 600# | | : Ni-MH Battery (3 years working hours) |
| | DIN PN 10 / PN 16 / PN25 / PN 40 | | |
| ● Fluid Viscosity | : 300 CP Max. | | |
| Communication | : RS485 (MODBUS Protocol) | | |
| | HART signal | | |



With LCD Display



Local Indication



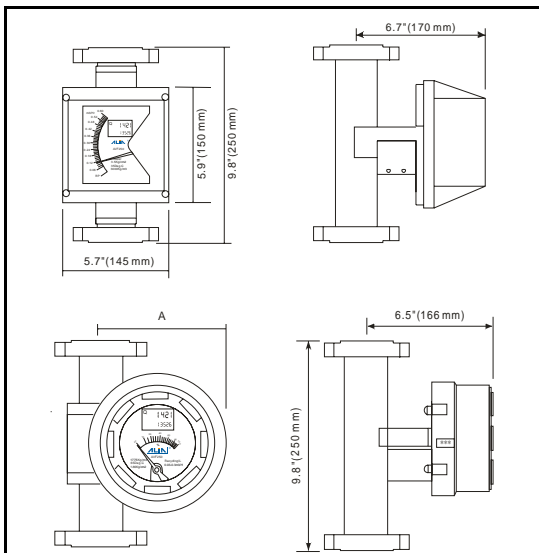
Explosion Proof



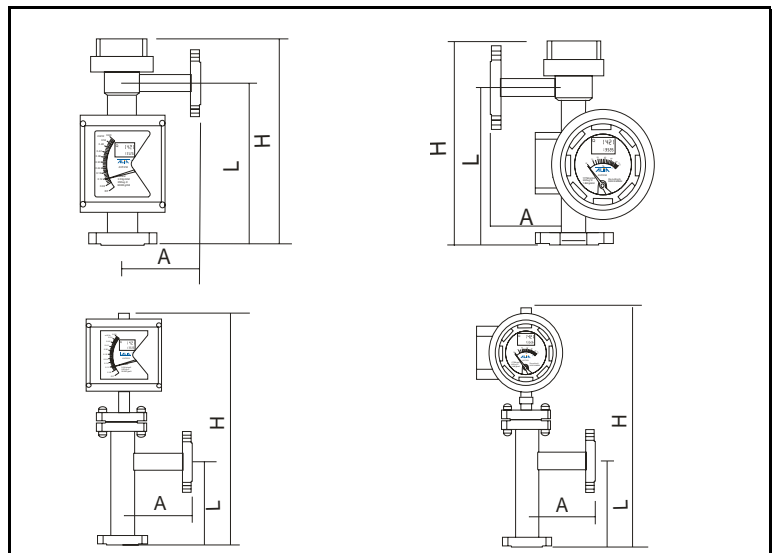
FLOW RANGE

Size				Float No.	S.S.304 / 316 / 316L	S. S. + PTFE	S.S.304 / 316 / 316L		
					Water ,68° F(20°C)			Air, 32° F(0°C), 1 ATM	
					USGPM		USGPM	ft3/min	
1/2"	15 mm	3/4"	20 mm	F15.0	0.004 - 0.04		0.018 - 0.18		
				F15.1	0.007 - 0.07		0.041 - 0.41		
				F15.2	0.011 - 0.11	0.007 - 0.07	0.065 - 0.65		
				F15.3	0.018 - 0.18	0.011 - 0.11	0.106 - 1.06		
				F15.4	0.028 - 0.28	0.018 - 0.18	0.165 - 1.65		
				F15.5	0.044 - 0.44	0.028 - 0.28	0.235 - 2.35		
				F15.6	0.070 - 0.70	0.044 - 0.44	0.412 - 4.12		
				F15.7	0.110 - 1.10	0.070 - 0.70	0.589 - 5.89		
				F15.8	0.176 - 1.76	0.110 - 1.10	0.942 - 9.42		
				F15.9	0.277 - 2.77	0.176 - 1.76	1.766 - 17.66		
1"	25 mm	1-1/2"	40 mm	F25.0	0.277 - 2.77				
				F25.1	0.440 - 4.40	0.277 - 2.77	1.766 - 17.66		
				F25.2	0.704 - 7.04	0.440 - 4.40	2.649 - 26.49		
				F25.3	0.881 - 8.81				
				F25.4	1.101 - 11.01	0.704 - 7.04	4.120 - 41.20		
				F25.5	1.409 - 14.09				
				F25.6	1.761 - 17.61	0.881 - 8.81	7.063 - 70.63		
				F25.7	2.201 - 22.01	1.101 - 11.01			
				F25.8	2.774 - 27.74	1.409 - 14.09	10.594 - 105.94		
				F50.0	2.201 - 22.01				
2"	50 mm	2-1/2"	65 mm	F50.1	2.774 - 27.74	1.761 - 17.61	10.594 - 105.94		
				F50.2	4.403 - 44.03	2.774 - 27.74	14.714 - 147.14		
				F50.3	7.045 - 70.45	4.403 - 44.03	23.543 - 235.43		
				F50.4	8.806 - 88.06	7.045 - 70.45			
				F50.5	11.007 - 110.07		37.080 - 370.80		
3"	80 mm	5"	125 mm	F80.0	7.045 - 70.45				
				F80.1	8.806 - 88.06				
				F80.2	11.007 - 110.07	7.045 - 70.45	41.200 - 412.00		
				F80.3	17.611 - 176.11	11.007 - 110.07	70.628 - 706.28		
				F80.4	27.738 - 277.38	17.611 - 176.11	105.943 - 1059.43		
4"	100 mm	5"	125 mm	F100.0	17.611 - 176.11				
				F100.1	27.738 - 277.38	17.611 - 176.11	105.943 - 1059.43		
				F100.2	35.223 - 352.23	27.738 - 277.38			
				F100.3	44.029 - 440.29	35.223 - 352.23	176.571 - 1765.71		
6"	150 mm	5"	125 mm	F150.0	35.223 - 352.23				
				F150.1	44.029 - 440.29	35.223 - 352.23	176.571 - 1765.71		
				F150.2	66.043 - 660.43				
				F150.3	88.057 - 880.57				
8"	200 mm	5"	125 mm	F200.0	66.043 - 660.43				
				F200.1	88.057 - 880.57				

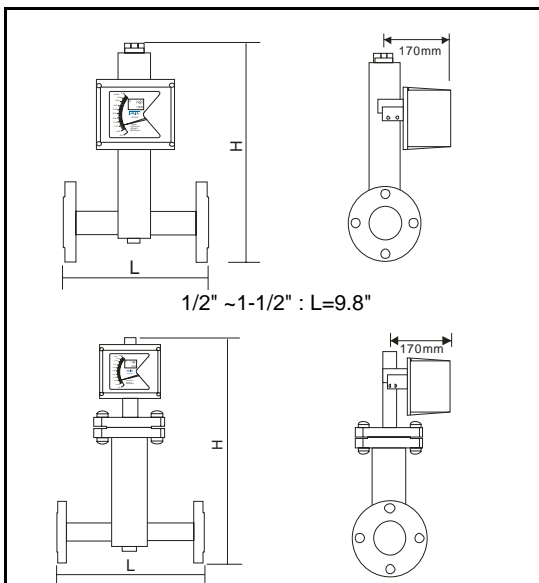
➔ DIMENSIONS



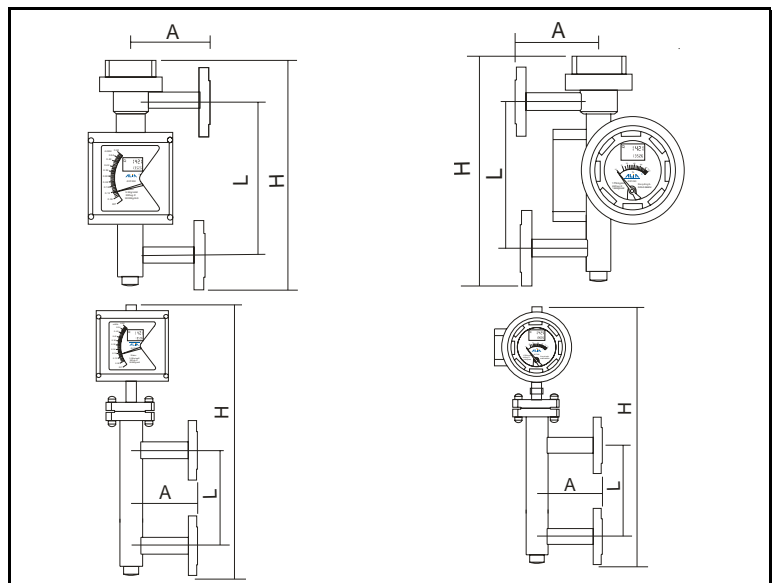
BT (Bottom - Top)				
Size inch	A inch	Weight pounds	Δ P psi	
1/2"	6.8	8.2	2.0	
1"	6.8	11.5	2.8	
2"	6.8	19.2	3.3	
3"	6.8	30.8	4.8	
4"	6.8	33.0	6.1	
6"	7.0	74.9	8.7	
8"	7.1	107.9	10.2	



BR (Bottom - Top Side)					
Size inch	H inch	L inch	A inch	weight pounds	Δ P pis
1/2"	13.8	9.8	4.7	15.4	2.6
1"	13.8	9.8	4.7	17.6	3.2
2"	23.6	9.8	4.7	33.0	4.1
3"	27.6	9.8	5.9	55.1	5.1
4"	27.6	9.8	5.9	63.9	6.5
6"	30.0	11.8	7.1	116.7	8.4
8"	31.5	13.8	7.9	134.4	10.2



LR / RL (Horizontal)				
Size inch	H inch	L inch	weight pounds	Δ P pis
1/2"	17.0	9.8	14.3	4.4
1"	17.7	9.8	23.1	5.1
2"	21.3	9.8	46.3	5.8
3"	22.0	15.7	70.5	6.5
4"	22.4	15.7	105.7	7.3
6"	24.4	15.7	209.2	9.1



RR (Bottom Side - Top Side)					
Size inch	H inch	L inch	A inch	weight pounds	Δ P pis
1/2"	19.7	9.8	4.7	11.2	2.9
1"	19.7	9.8	4.7	18.1	4.1
2"	25.6	9.8	4.7	30.8	5.2
3"	31.5	11.8	5.9	68.3	6.5
4"	31.5	11.8	5.9	110.1	8.4
6"	33.5	13.8	7.1	147.6	9.1
8"	34.6	15.7	7.9	178.6	10.2

MODEL SELECTION GUIDE

AVF250 Series									
Example:AVF250-050-S6ABT-B-IT-D									
AVF250-	XXX	-XX	X	XX	-X	-XX	-X	Description	
Size	015 - 200							15 ~ 200mm (1/2" ~ 8")	
Material	-S4							Stainless Steel 304	
	-S6							Stainless Steel 316	
	-SL							Stainless Steel 316L	
	-4P							Stainless Steel 304+ PTFE Liner	
	-6P							Stainless Steel 316+ PTFE Liner	
Process Connection	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		
Flow direction	BT							Bottom - Top	
	BR							Bottom - Top Side	
	RR							Bottom Side - Top Side	
	LR							Left - Right (Horizontal)	
	RL							Right - Left (Horizontal)	
Function	- A							Local Indication	
	- B							Local Indication + Rate 4 digit/Totalizer 8 digit + 4-20 mA	
	- C							Local Indication + Rate 4 digit/Totalizer 8 digit (Battery Power)	
	- D							Local Indication + One point Alarm (Reed Switch, 1A, 30VDC)	
	- E							Local Indication + Two point Alarm (Reed Switch, 1A, 30VDC)	
Protection Class	- NN							IP65	
	- IT							Intrinsically Safe, Eex ia IIC T5	
	- EX							Explosion Proof, Ex d IIB T6	
Option	-N							None	
	-C1							RS485 (Modbus Protocol)	
	-C2							HART Signal	
	-D							Damper (For Steam & Gas Application)	
	-H							Heating Jacket	
	-P1							Pulse/Alarm Output * 1 (with Function B Only)	
	-P2							Pulse/Alarm Output * 2 (with Function B Only)	
	-T							Max. Temp. Higher than 392° F (212° F for LCD Display)	
	-PT							Cable Entry 1/2"NPTF	