ALIAVA

Metal Tube Variable Area Flowmeter

Model AVF250PE Series

GENERAL

ALIAVA The Alia AVF250PE 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.

With LCD Display

Local Indication

Explosion Proof

FEATURES

- 5 digit flowrate & 8 digit totalizer
- Local indication without auxiliary power
- 4-20 mA & scale pulse output
- Low pressure loss in 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 : 15,20,25,40,50,65,80,100,125,150,200 mm
- Measuring Range : Liquid - 1 ~ 200000 Liter/Hr
  : Gas - 0.03 ~ 3000 M3/Hr
- Turndown Ratio : 10:1 (20:1 Optional)
- Accuracy : +/-1.6% (Standard)
  : +/-1.0% (Optional)
- Repeatability : +/-0.5% FS
- Material
  Tube & Float : Stainless Steel 304
  : Stainless Steel 316
  : Stainless Steel 316L
  : Stainless Steel + PTFE Liner
- Standard Pressure : 40 Kg/cm2 (15mm ~ 50mm)
  : 16 Kg/cm2 (65mm ~ 200mm)
- Temperature : -25 ~ +200 °C (Standard)
  : -25 ~ +100 °C (LCD Display)
  : 0 ~ +80 °C (PTFE Liner)
  : -80 ~ +400 °C (Optional)
- Flange Type : JIS 10K / JIS 20K / JIS 40K
  ANSI 150# / ANSI 300# / ANSI 600#
  DIN PN 10 / PN 16 / PN25 / PN 40
- Fluid Viscosity : 300 CP Max.
- Communication : RS485 (MODBUS Protocol)
  : HART signal (Compatible)
- Local Display : Mechanical Indicator (Standard)
  Digit Display : 5 Digit Flowrate
  : 8 Digit Totalizer
- Current Output : 4-20 mA (2 Wire)
  Load : Max. 600 Ω
- Pulse Output : Open collector (Scale pulse)
  Rating : 3 to 30 Vdc, 100 mA Max.
- Data Storage : Operation parameters and totalizer figures are stored by EEPROM for more than 10 years
- Alarm Output : 2 point (Open collector)
  Rating : 3 to 30Vdc, 100 mA Max.
- Keypad : 3 internal keys for programming and display control
- Ambient Temperature : -25 to +60 °C
- Protection Class : IP 65
  : Intrinsically Safe, Eex ia IIC T5
  : Explosion Proof, Ex d IIB T6
- Housing Material : Aluminum Alloy
- Cable Entry : Standard:M20 Option:1/2"NPTF
- Pressure Loss : 0.07 ~ 0.7 Kg/cm2
- Power Supply : 12 ~ 36VDC (2 wire 4-20 mA)
  : Ni-MH Battery (3 years working hours)
- Option : AM(Ambient Temperature Inspection)

CE

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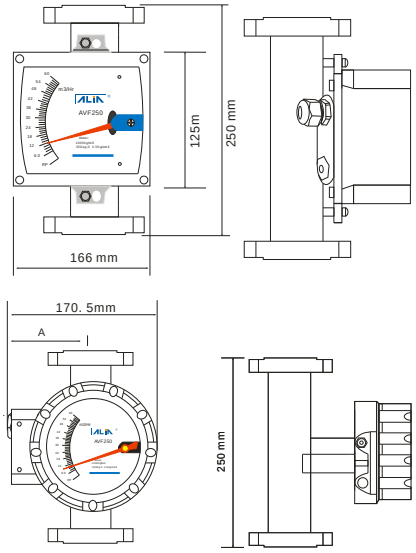
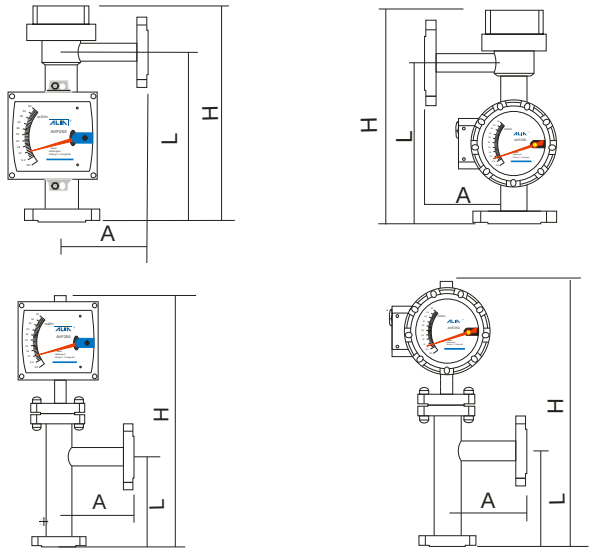
FLOW RANGE

Size					Float No.	S.S.304 / 316 / 316L	S. S. + PTFE	S.S.304 / 316 / 316L
						Water , 20°C		Air, 0°C, 1 ATM
						Liter/Hr	**Liter/Hr**	**M3/Hr**
15 mm	1/2"	20 mm	3/4"		F15.0	1.0 - 10		0.03 - 0.3
					F15.1	1.6 - 16		0.07 - 0.7
					F15.2	2.5 - 25	1.6 - 16	0.11 - 1.1
					F15.3	4.0 - 40	2.5 - 25	0.18 - 1.8
					F15.4	6.3 - 63	4.0 - 40	0.28 - 2.8
					F15.5	10 - 100	6.3 - 63	0.4 - 4.0
					F15.6	16 - 160	10 - 100	0.7 - 7
					F15.7	25 - 250	16 - 160	1.0 - 10
					F15.8	40 - 400	25 - 250	1.6 - 16
					F15.9	63 - 630	40 - 400	3.0 - 30
25 mm	1"			40 mm	F25.0	63 630		
					F25.1	100 - 1,000	63 - 630	3.0 - 30
					F25.2	160 - 1,600	100 - 1,000	4.5 - 45
					F25.3	200 - 2,000		
					F25.4	250 - 2,500	160 - 1,600	7.0 - 70
					F25.5	320 - 3,200		
					F25.6	400 - 4,000	200 - 2,000	12 - 120
					F25.7	500 - 5,000	250 - 2,500	
					F25.8	630 - 6,300	320 - 3,200	18 - 180
50 mm	2"	65 mm	2-1/2"		F50.0	500 - 5,000		
					F50.1	630 - 6,300	400 4,000	18 - 180
					F50.2	1,000 - 10,000	630 - 6,300	25 - 250
					F50.3	1,600 - 16,000	1,000 - 10,000	40 - 400
					F50.4	2,000 - 20,000	1,600 - 16,000	
80 mm	3"				F50.5	2,500 - 25,000		63 - 630
					F80.0	1,600 - 16,000		
					F80.1	2,000 - 20,000		
					F80.2	2,500 - 25,000	1,600 - 16,000	70 - 700
					F80.3	4,000 - 40,000	2,500 - 25,000	120 - 1,200
					F80.4	6,300 - 63,000	4,000 - 40,000	180 - 1,800
100 mm	4"	125 mm	5"		F100.0	4,000 - 40,000		
					F100.1	6,300 - 63,000	4,000 - 40,000	180 - 1,800
					F100.2	8,000 - 80,000	6,000 - 60,000	
					F100.3	10,000 - 100,000		300 - 3,000
150 mm	6"				F150.0	8,000 - 80,000		
					F150.1	10,000 - 100,000		300 - 3,000
					F150.2	15,000 - 150,000		
					F150.3	20,000 - 200,000		
200 mm	8"				F200.0	15,000 - 150,000		
					F200.1	20,000 - 200,000		

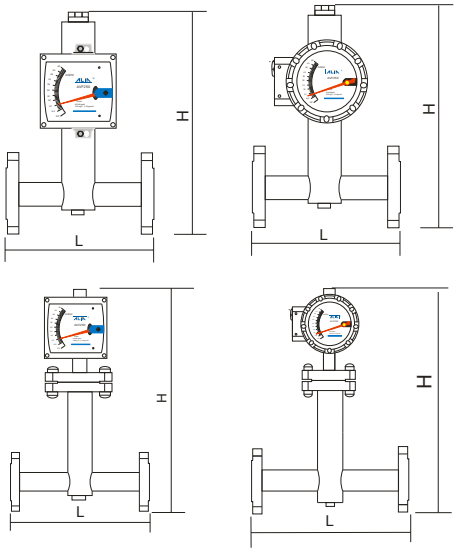
DIMENSIONS



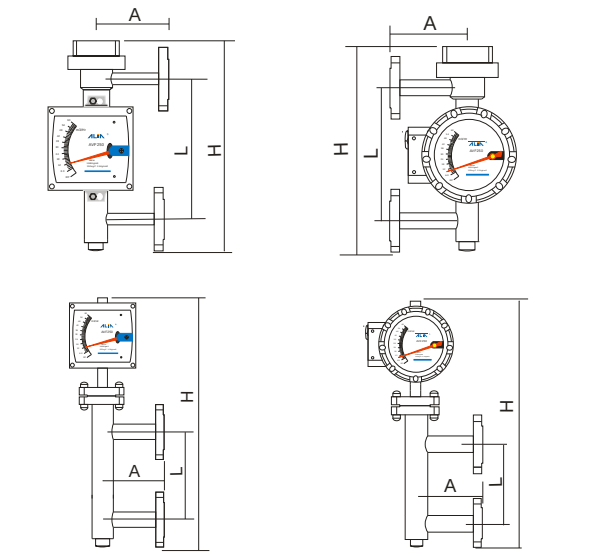
BT (Bottom - Top)			
Size mm	A mm	Weight Kg	Δ P mbar
15	108	3.7	140
25	99	5.6	190
50	84	9.7	230
80	71	15	330
100	61	17	420
150	42	34	600
200	12	49	700



BR (Bottom - Top Side)					
Size mm	H mm	L mm	A mm	weight Kg	Δ P mbar
15 mm	330	250	120	7.0	180
25 mm	340	250	120	8.0	220
50 mm	560	250	120	15	280
80 mm	575	250	150	25	350
100 mm	690	250	150	29	450
150 mm	690	300	180	53	580
200 mm	780	350	200	61	700



LR / RL (Horizontal)				
Size mm	H mm	L mm	weight Kg	Δ P mbar
15	355	250	7.5	300
25	370	250	9	350
50	643	250	18	400
80	690	400	29	450
100	720	400	35	500
150	793	500	60	630
200	970	550	73	850



RR (Bottom Side - Top Side)					
Size mm	H mm	L mm	A mm	weight Kg	Δ P mbar
15	380	250	120	7.2	200
25	400	250	120	8.7	280
50	643	250	120	16.6	360
80	675	250	150	28.2	450
100	700	250	150	33.5	580
150	832	300	180	58	630
200	950	350	200	68	700

MODEL SELECTION GUIDE

AVF250PE Series								
Example:AVF250PE-050-S6ABT-B-IT-D								
AVF250PE-	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 5 digit/Totalizer 8 digit + 4-20 mA
					- C			Local Indication + Rate 5 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 (Compatible)
							-D	Damper (For Steam & Gas Application)
							-H	Heating Jacket
							-P1	Pulse Output * 1 (With Function B Only)
							-P2	Alarm Output * 2 (With Function B Only)
							-T	Max. Temp. Higher Than 200 °C (100 °C for LCD Display)
							-PT	Cable Entry 1/2" NPTF
							-AM	Ambient Temperature Inspection