

GENERAL

ALIAVA The AVF250H Series is a horizontally mounted metal tube variable area flowmeter. With its unique design, it can provide a mechanical pointer display without power supply, as well as intrinsically safe and explosion-proof to suit various operating conditions.

FEATURES

- ❑ Spring type horizontal mounted metal tube flowmeter
- ❑ 5 Digit flowrate & 7 digit totalizer
- ❑ Local indication without auxiliary power
- ❑ 4-20 mA and scale pulse output
- ❑ Low pressure loss in gas and steam application
- ❑ Damper for Gas / Steam application
- ❑ Consistent overall length
- ❑ 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 L/hr
: Gas -0.03~3000 m³/hr
- Turndown Ratio : 10:1 (20:1 Optional)
- Accuracy : +/-2.5% (Standard)
: +/-1.5% (Optional)
- Repeatability : +/-0.8% FS
- Material : Tube & Float : Stainless Steel 304
: Stainless Steel 316
- Standard Pressure : 40 kgf/cm² (15-50 mm)
: 16 kgf/cm² (65-200 mm)
- Temperature : 0-100 °C (Standard)
- Flange Type : JIS 10K / JIS 20K / JIS 40K
ANSI 150# / ANSI 300# / ANSI 600#
DIN PN10 / PN16 / PN25 / PN40
- Fluid Viscosity : 300 cP Max.
- Communication : RS485 (MODBUS Protocol)
: HART signal (Compatible)
- Data Storage : Operation parameters and totalizer figures are stored by EEPROM for more than 10 years



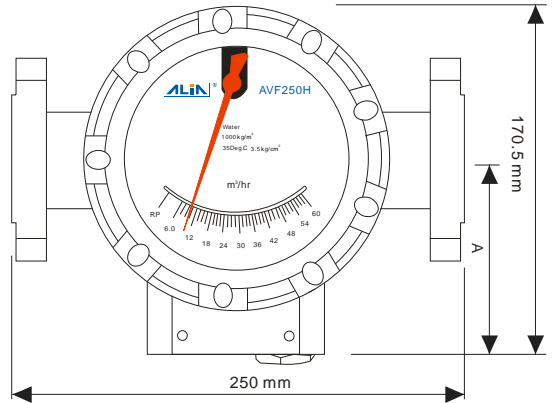
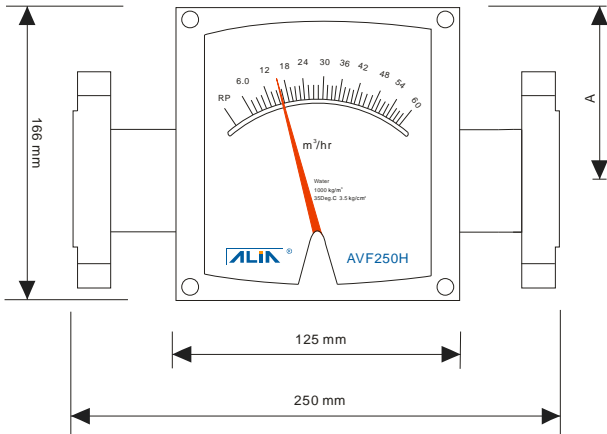
- Local Display : Mechanical Indicator (Standard)
Digit Display : 5 Digit Flowrate
: 7 Digit Totalizer
- Current Output : 4-20 mA (2-Wire)
Load : Max. 600 Ω
- Pulse Output : Open collector (Scaled pulse)
Rating : 3-30 VDC, 100 mA Max.
- Limit Switches : 2-Wire NAMUR (For Exia / Exd)
: 3-Wire transistor
- Keypad : 3 Internal keys for programming and display control
- Ambient Temperature : 0-60 °C
- Protection Class : IP65
: Intrinsically Safe, Eex ia IIC T5
: Explosion Proof, Ex d IIC T6
- Housing Material : Aluminum Alloy
- Cable Entry : Standard: M20 Option: 1/2" NPTF
- Pressure Loss : 0.07-0.7 kgf/cm²
- Power Supply : 12-32 VDC
: Ni-MH Battery (3 years working hours)



FLOW RANGE

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

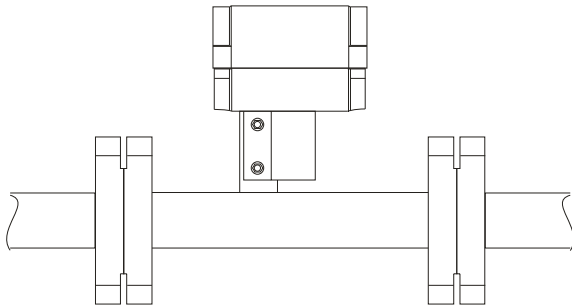
DIMENSIONS



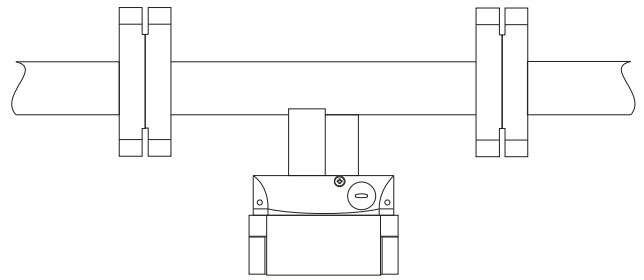
Left-Right / Right-Left			
Size mm	A mm	Weight kg	Δ P mbar
15	115	3.4	590
25	103	5.3	240
50	88	9.4	420
80	75	14.8	320
100	66	16.7	300
150	46	33.4	600
200	28	48.4	700

Left-Right / Right-Left			
Size mm	A mm	Weight kg	Δ P mbar
15	133	3.7	590
25	121	5.6	240
50	106	9.7	420
80	93	15.1	320
100	84	17.0	300
150	65	33.7	600
200	29	48.7	700

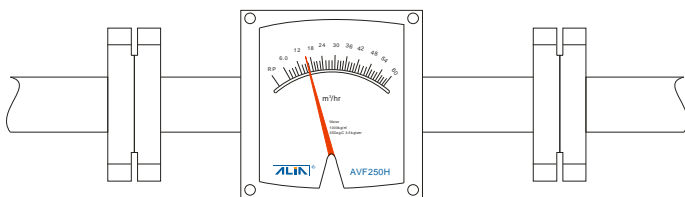
INSTALLATION DIRECTION



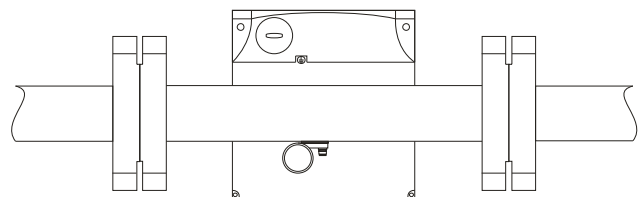
Top View



Bottom View



Front View



Back View

MODEL SELECTION GUIDE

AVF250H Series									
Example: AVF250H-050-S6ALR-B-IT-TV-C2									
AVF250H-	XXX	-XX	X	XX	-X	-XX	-X	-X	Description
Size	015-200								15-200 mm (1/2"-8")
Material		-S4							Stainless Steel 304
		-S6							Stainless Steel 316
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			LR						Left-Right
			RL						Right-Left
Function			-A						Local Indication
			-B						Local Indication + Rate 5 digit / Totalizer 7 digit + 4-20 mA
			-C						Local Indication + Rate 5 digit / Totalizer 7 digit (Battery Power)
			-F						Local Indication + One point Alarm (2-Wire NAMUR or 3-Wire transistor)
			-G						Local Indication + Two point Alarm (2-Wire NAMUR or 3-Wire transistor)
Protection Class			-NN						IP65
			-IT						Intrinsically Safe, Eex ia IIC T5
			-EX						Explosion Proof, Ex d IIC T6
Installation Direction							-TV		Top view (see page 3 for details)
							-BV		Bottom view (see page 3 for details)
							-FV		Front view (see page 3 for details)
							-KV		Back view (see page 3 for details)
							-ZZ		Other directions
Option							-N		None
							-C1		RS485 (MODBUS Protocol)
							-C2		HART Signal (Compatible)
							-P1		Pulse Output * 1 (With Function B Only)
							-P2		Alarm Output * 2 (With Function B Only)
							-R2		Relay Output * 2 (1A@30 VDC, 0.5A@125 VAC) (With Function B Only)
						-PT		Cable Entry 1/2" NPTF	