

GENERAL

ALIAMASS ACF6000 Series uses the Coriolis effect as a technique for liquid mass flow measurement.

The ACF6000 can measure most of the liquids; the infrared light sensor makes it easy for you to set parameters & change the display data. The Double-C tube & Double-D Tube make it possible for the meter to be used in most liquid applications.

FEATURES

- Can be programmed by infrared light sensor without opening cover
- High turndown ratio of flow rate
- It comes any flanges such as ANSI, DIN, JIS... etc
- Excellent for high pressure application
- Simple for installation, commission and maintenance
- Self-diagnostic capabilities, cable faults, pipe vibration
- High accuracy of $\pm 0.2\%$ of reading (or $\pm 0.1\%$ of reading)
- With forward / reverse flow rate measurement function

STANDARD SPECIFICATION

- | | | | |
|-----------------------|--|------------------------|--|
| ● Sensor Type | : C tube (10-40mm) / U tube (50-150mm) | ● Display | : 2 lines LCD with illumination |
| ● Size | : 10mm ~ 200 mm (3/8" ~ 8") | Flow Rate Unit | : g/s, Kg/min, kg/Hr, T/Hr, 6 Digit |
| ● Flow Range | : 0 - 1000 Kg/Hr ~ 0 - 1106000 Kg/Hr | Density Unit | : Kg/m3, g/cm3, 6 Digit |
| ● Accuracy | : $\pm 0.2\%$ $\pm$ ZS of reading (Standard) | Totalizer Unit | : g, Kg, Ton, L, M3, 7 Digits |
| | : $\pm 0.1\%$ $\pm$ ZS of reading (Optional) | Temperature | : $^{\circ}$ C, $^{\circ}$ F, 4 Digits |
| ● Repeatability | : $\pm 0.03\%$ $\pm$ ZS of reading | ● Keypad | : Infrared light Sensor,
can be programmed without
Opening the cover |
| ● Density Range | : 200 - 2300 Kg/M3 (0.2 - 2.3 g/cm3) | ● Turndown Ratio | : 20 : 1 |
| Accuracy | : ± 0.002 g/cm3 | ● Damping | : 0.01 To 1.0 Seconds |
| ● Temperature Range | : -40° C ~ $+125^{\circ}$ C (Standard) | ● Low Flow Cutoff | : 0.0% ~ 9.0% |
| | : -40° C ~ $+250^{\circ}$ C (Optional, Separate Only) | ● Communication | : RS485 (Modbus Protocol) (Standard)
: Hart Signal (Optional) |
| ● Material | | ● Current Output | : 4-20 mA (Isolated) |
| Wetted Parts | : Stainless Steel 316L | Load | : Max. 750 Ω |
| Flange | : Stainless Steel 316L | Output Unit | : Mass / Volume / Density / Temperature |
| Sensor Housing | : Stainless Steel 304 | ● Pulse (Alarm) Output | : Open Collector |
| Junction Box | : Aluminum Alloy (Epoxy Paint) | Rating | : 3-30Vdc, 50mA Max. |
| ● Process Connection | : Flange | ● Power Supply | : 90-260 VAC, 50/60 Hz or 24 VDC $\pm 10\%$ |
| ● Flange Type | : JIS 10K / JIS 20K / JIS 40K | ● Power Consumption | : 30 - 40 W (Depend on sensor size) |
| | : ANSI 150# / ANSI 300# / ANSI 600# | ● Cable Entry | : Sensor to Converter- 3/4" G
: Signal output / Power supply- M20 |
| | : DIN PN 10 / PN 16 / PN25 / PN 40 | ● Ambient Temperature | : -40° C to $+60^{\circ}$ C |
| ● Protection Class | : IP 67 | ● Max. Pressure | : 63 Kg/cm2 |
| | : Explosion Proof Exde (ib) IIC T6 (Optional) | | |
| ● Installation | : Compact or Separate | | |
| ● Signal Cable Length | : 10M - 100M | | |



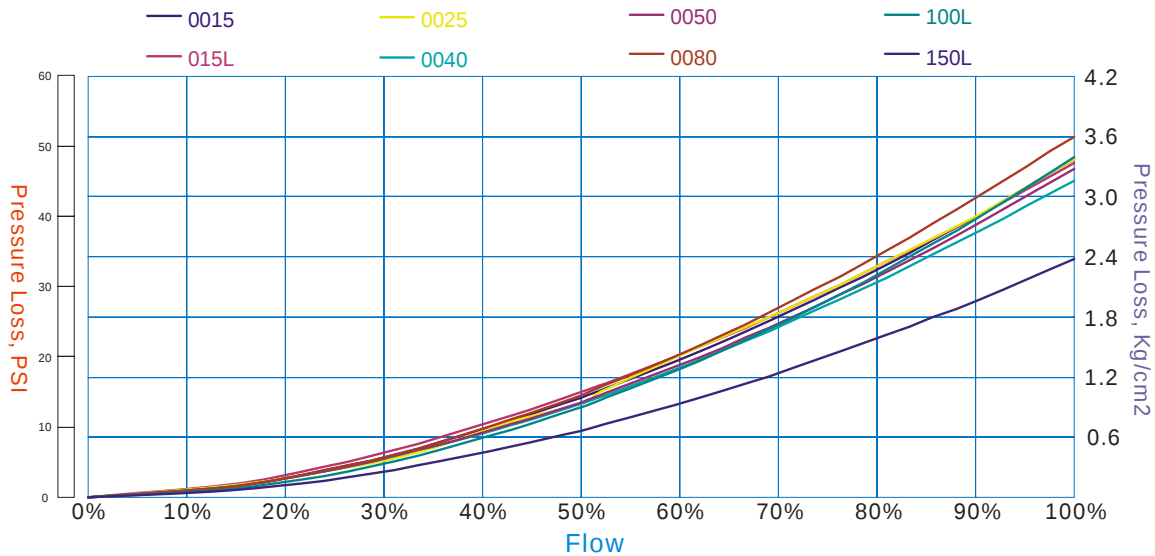
FLOW RANGE

Unit : Kg/Hr

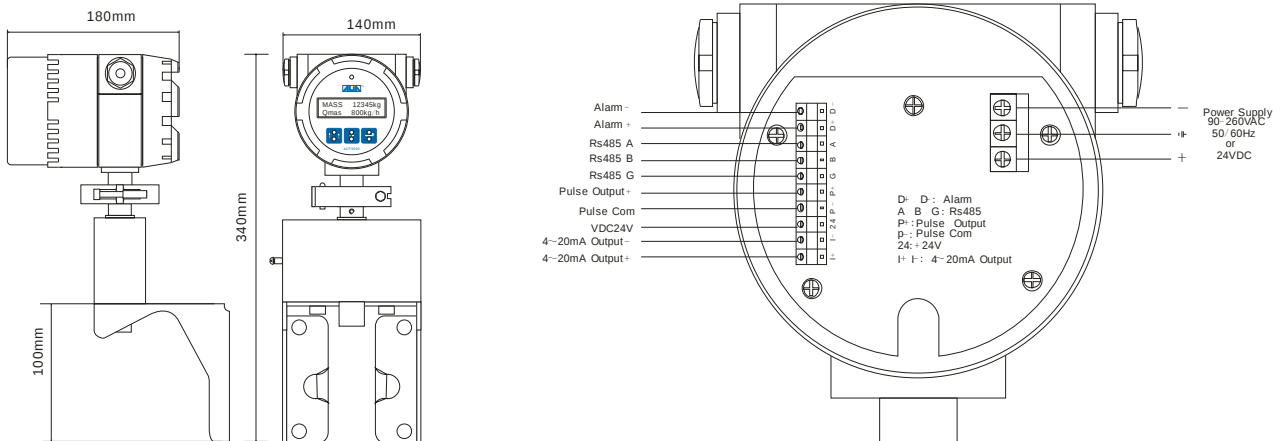
Normal Size		Flow Rate & Accuracy Table					
Model Code	Inch	Minimum	Normal	Maximum	Zero Stability	Temperature Effect %Flow Rate / °C	Pressure Effect %Flow Rate / Kg/cm2
0015	1/2"	100	1,000	2,000	0.17	+/-0.000125	-0.001
015L	1/2"(L)	300	3,000	6,000	0.40		
0020	3/4"	300	3,000	6,000	0.40		
0025	1"	630	6,300	12,600	0.90		
0040	1-1/2"	1,710	17,100	34,200	2.40		
0050	2"	6,330	63,300	126,600	8.30	+/-0.0005	-0.011
0065	2-1/2"	6,330	63,300	126,600	8.30		
0080	3"	16,100	161,000	322,000	19.0		
0100	4"	16,100	161,000	322,000	19.0		
100L	4" (L)	36,200	362,000	724,000	48.0		
0125	5"	36,200	362,000	724,000	48.0	+/-0.001	-0.058
0150	6"	36,200	362,000	724,000	48.0		
150L	6"(L)	55,300	553,000	1,106,000	78.0	+/-0.0025	-0.035
0200	8"	55,300	553,000	1,106,000	78.0		

Accuracy Between Minimum - Maximum is +/- 0.2% (+/- 0.1%) of Reading

PRESSURE LOSS



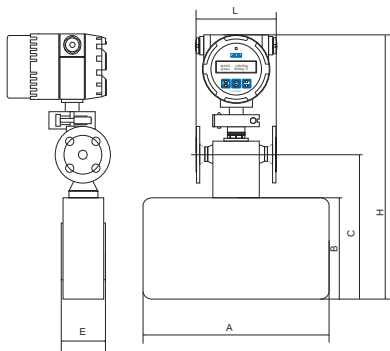
WIRING DIAGRAM



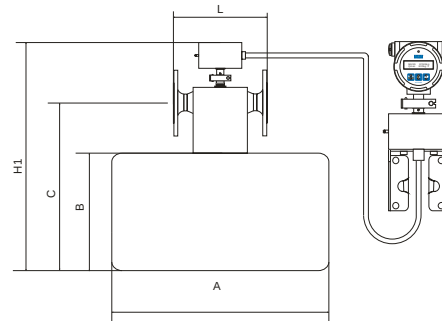
7 DIMENSIONS

Normal Size		Standard Pressure	Dimensions (mm)							Sensor Weight Separate Type
mm	Inch	kg/cm2	L	A	B	C	H	H1	E	KG
15	1/2"	40	162	320	170	223	436	357	76	6.5
15L	1/2"		162	370	190	250	458	379	94	7.5
25	1"		202	480	265	337	540	460	114	11
40	1.5"		274	615	295	383	563	513	146	21.5
50 / 65	2" - 2.5"		562 / 570	460	595	702	930	847	201	46
80 / 100	3" - 4"		850 / 864	774		937	310		214	89
100L / 150	4" - 6"		890 / 910	824		1135	285		264	208
150L / 200	6" - 8"		1090/1116	950		1050	285		290	248

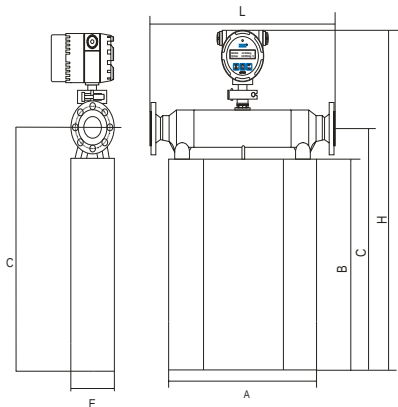
Note: Standard Dimension L only for DIN flange



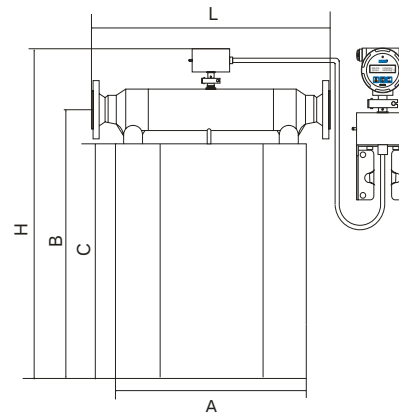
DN15-40



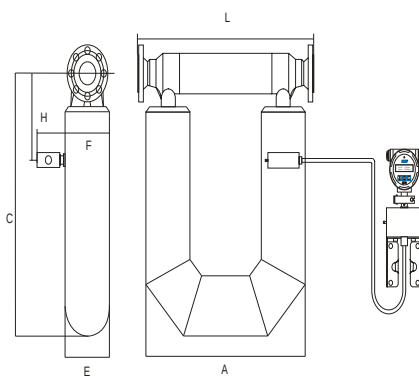
DN15-40



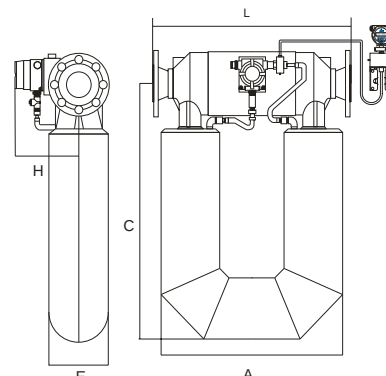
DN50 - DN65



DN50 - DN65



DN80



DN100 - DN200

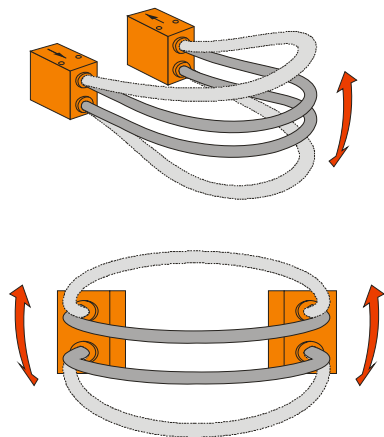
MODEL SELECTION GUIDE

ACF6000 Series

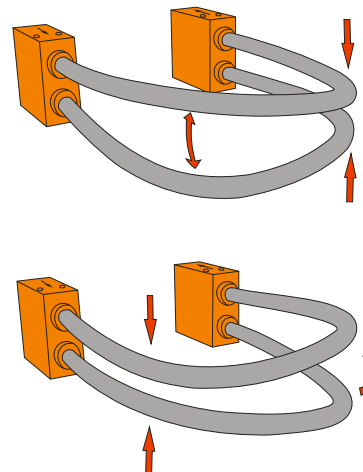
Example: ACF6000-0080-AH-020-H-AC-HT/EX/PT

ACF6000-	XXXX	-X	X-	XXX	-X	-XX	-XX	Description
Size	0015-0200							0015 / 015L / 0020 / 0025 / 0040 / 0050 / 0065 mm
								0080 / 0100 / 100L / 125 / 150 / 150L / 200 mm
Process Connection		-1					PN10	
		-2					PN16	
		-3					PN25	
		-4					PN40	
		-A					ANSI 150 #	
		-B					ANSI 300 #	
		-C					ANSI 600 # (Max. Pressure 63 Kg/cm2)	
		-J					JIS 10K	
		-K					JIS 20K	
		-L					JIS 40K	
		-Z					Other	
Max. Temperature		N-					-40 °C~ +125 °C	
		H-					-40 °C ~ 200 °C (Separate Type Only)	
		X-					-40 °C ~ 250 °C (Separate Type Only)	
Installation & Cable Length			NNN				Compact Version (Size 15 / 20 / 25 / 40 / 50 / 65mm Only)	
			010~100				Separate Version, Cable 10M ~ 100M, 2" Mounting Bracket	
Accuracy					-N			+/- 0.2% of reading
					-H			+/- 0.1% of reading
Power Supply						-AC		90 - 260 VAC, 50/60 Hz
						-DC		24 VDC +/-10%
Option						-NN	None	
						-HT	HART Signal	
						-EX	Explosion Proof, Exde (ib) IIC T6	
						-HJ	Heating Jacket	
						-PT	Cable Entry 1/2" NPTF	

WORKING PRINCIPLE



Vibration Under No Flow



Vibration Under Flow