

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 +/-0.2% of reading (or +/-0.1% of reading)
- ❑ With forward / reverse flow rate measurement function

STANDARD SPECIFICATION

- Sensor Type : C tube (10-40mm) / U tube (50-150mm)
- Size : 10mm ~ 200 mm (3/8" ~ 8")
- Flow Range : 0 - 1000 Kg/Hr ~ 0 - 1106000 Kg/Hr
- Accuracy : +/-0.2% +/-ZS of reading (Standard)
: +/-0.1% +/-ZS of reading (Optional)
- Repeatability : +/-0.03% +/-ZS of reading
- Density Range : 200 - 2300 Kg/M3 (0.2 - 2.3 g/cm3)
Accuracy : +/-0.002 g/cm3
- Temperature Range : -40 °C ~ +125 °C (Standard)
: -40 °C ~ +250 °C (Optional, Separate Only)
- Material
Wetted Parts : Stainless Steel 316L
Flange : Stainless Steel 316L
Sensor Housing : Stainless Steel 304
Junction Box : Aluminum Alloy (Epoxy Paint)
- Process Connection : Flange
- Flange Type : JIS 10K / JIS 20K / JIS 40K
: ANSI 150# / ANSI 300# / ANSI 600#
: DIN PN 10 / PN 16 / PN25 / PN 40
- Protection Class : IP 67
: Explosion Proof Exde (ib) IIC T6 (Optional)
- Installation : Compact or Separate
- Signal Cable Length : 10M - 100M

- Display : 2 lines LCD with illumination
Flow Rate Unit : g/s, Kg/min, kg/Hr, T/Hr, 5 Digit
Density Unit : Kg/m3, g/cc, 5 Digit
Totalizer Unit : g, Kg, Ton, L, M3, 11 Digits
Temperature : °C, °F, 4 Digits
- Keypad : 3 keys from Internal setting + Infrared light
Sensor, can be programmed without
Opening the cover
- Turndown Ratio : 20 : 1
- Damping : 0.01 To 1.0 Seconds
- Low Flow Cutoff : 0.0% ~ 9.0%
- Communication : RS485 (Modbus Protocol)
: Hart Signal (Optional)
- Current Output : 4-20 mA (Isolated)
Load : Max. 750 Ω
Output Unit : Mass / Volume / Density / Temperature
- Pulse (Alarm) Output : Open Collector
Rating : 3-30Vdc, 50mA Max.
- Power Supply : 90-260 VAC, 50/60 Hz or 24 VDC +/-10%
- Power Consumption : 30 - 40 W (Depend on sensor size)
- Cable Entry : Sensor to Converter- 3/4" G
: Signal output / Power supply- M20
- Ambient Temperature : -40 °C to +60 °C
- Max. Pressure : 63 Kg/cm2



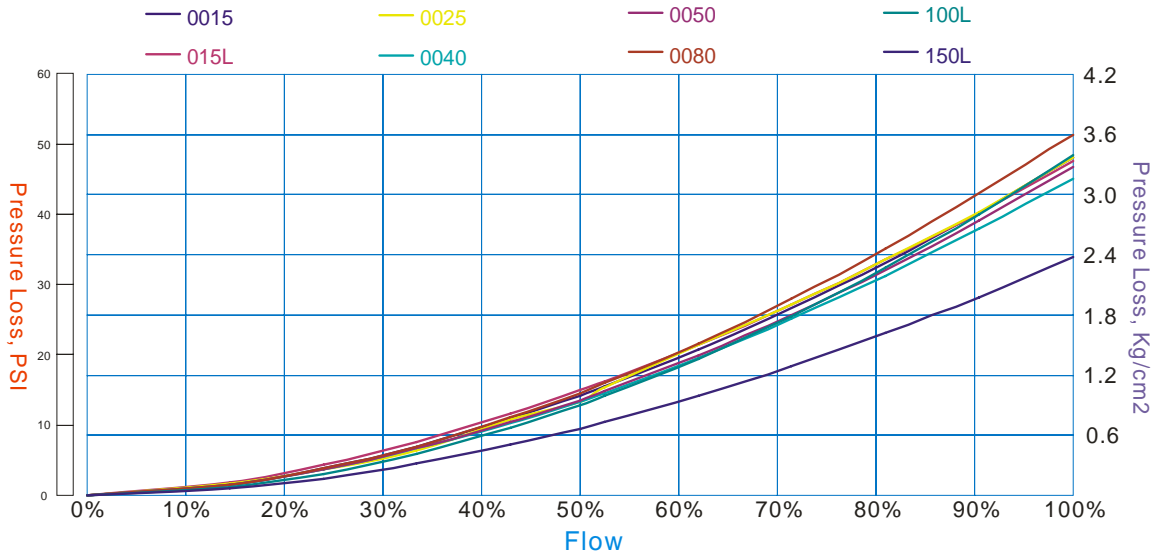
FLOW RANGE

Unit : Kg/Hr

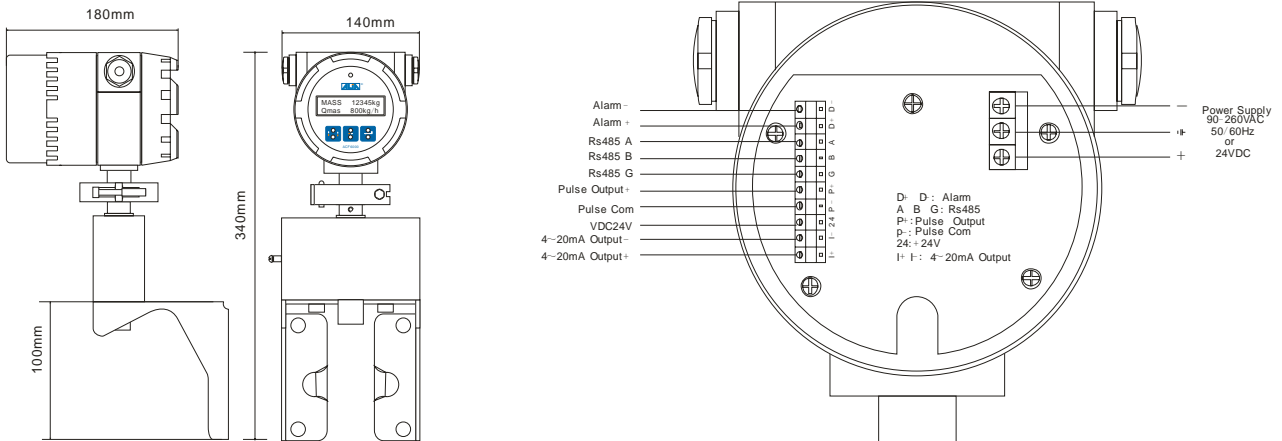
| Normal Size | | Flow Rate & Accuracy Table | | | | | |
|-------------|---------|----------------------------|---------|-----------|----------------|------------------------------------|-------------------------------------|
| Model Code | Inch | Minimum | Normal | Maximum | Zero Stability | Temperature 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



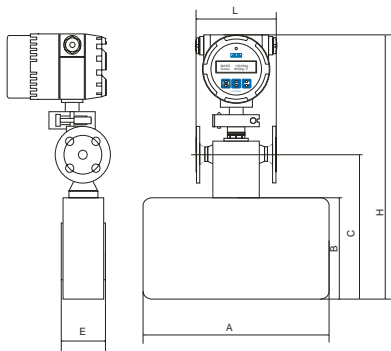
WIRING DIAGRAM



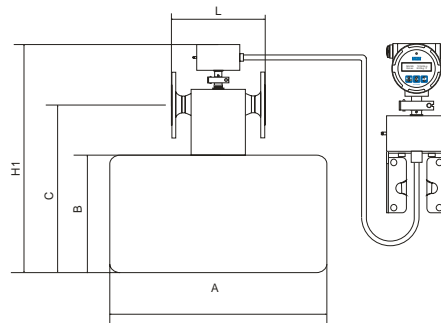
➤ DIMENSIONS

| Normal Size | | Standard Pressure kg/cm2 | Dimensions (mm) | | | | | | | Sensor Weight Separate Type |
|-------------|-------------|-----------------------------|-----------------|-----|-----|------|-----|-----|-----|--------------------------------|
| mm | Inch | | L | A | B | C | H | H1 | E | KG |
| 15 | 1/2" | 40 | 162 | 320 | 170 | 223 | 436 | 357 | 76 | 6.5 |
| 15L / 20 | 1/2" - 3/4" | | 162 / 166 | 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 / 566 | 460 | 595 | 702 | 930 | 847 | 201 | 46 |
| 80 / 100 | 3" - 4" | | 850 | 774 | | 937 | 310 | | 214 | 89 |
| 100L / 150 | 4" - 6" | | 890 / 898 | 824 | | 1135 | 285 | | 264 | 208 |
| 150L / 200 | 6" - 8" | | 1090/1102 | 950 | | 1050 | 285 | | 290 | 248 |

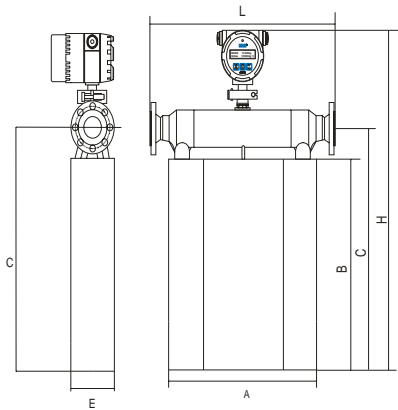
Note: Standard Dimension L only for DIN flange



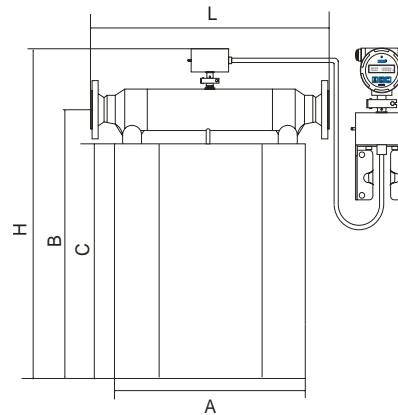
DN15-40



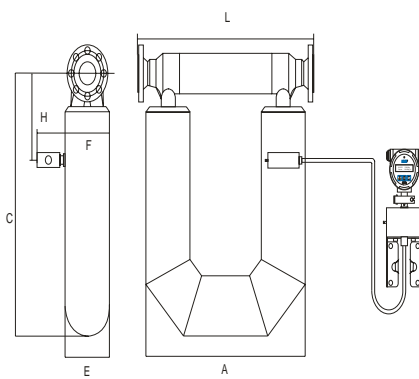
DN15-40



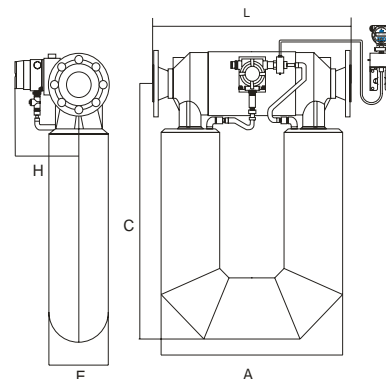
DN50 - DN65



DN50 - DN65



DN80



DN100 - DN200

MODEL SELECTION GUIDE

| ACF6000 Series | | | | | | | | | | |
|--|-----------|----|----|-----|-----|---|-----|-----|-------------|---|
| Example:ACF6000-0080-AH-020HT-H-AC-EX/PT | | | | | | | | | | |
| ACF6000- | XXXX | -X | X- | XXX | XX- | 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 |
| Communication | NN- | | | | | | | | | RS485 (MODBUS Protocol) |
| | HT- | | | | | | | | | HART Signal |
| 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 |
| | -EX | | | | | | | | | Explosion Proof, Exde (ib) IIC T6 |
| | -HJ | | | | | | | | | Heating Jacket |
| | -PT | | | | | | | | | Cable Entry 1/2" NPTF |

WORKING PRINCIPLE

