

## Coriolis Mass Flow Controller LC-4000 Series



### ■ Outlines

- LC-4000: Liquid mass flow controller equipped with the coriolis sensor and solenoid actuator

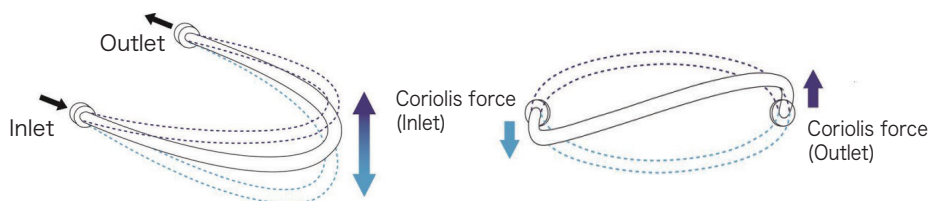
### ■ Features

- Calibration of the flow rate is not necessary each liquid by using coriolis sensor
- Operating as a liquid vaporization system when use in combination with VU Series
- It can control the liquid flow rate of 0.2 ~ 140g/min with an accuracy  $\pm 1.0\%$  F.S.
- Long-term leak tightness ensured using metal seal and elastomer seal
- By using metal case and various filters, stable operation can be achieved through reduction of radio frequency noises and electromagnetic field interferences
- Bypass-less design is enabled to introduce the liquid and purge the flow channel

### RoHS

#### ■ Principle for Coriolis Sensor

When the liquid passes through the vibrating tube, the forces which resist the tube occur. This is called "Coriolis force". The forces are strictly proportional to the actual mass flow rate.



Model	LC-4216L	LC-4316L	LC-4416L
Flow rate (H <sub>2</sub> O)	2 ~ 7g/min	8 ~ 17g/min	18 ~ 140g/min
Flow rate control range		10 ~ 100% F.S.	
Valve operation mode		Normally closed	
Accuracy		$\pm 1.0\%$ F.S.	
Repeatability		$\pm 0.5\%$ F.S.	
Response time		3 sec	
Analog flow rate setting signal		0.5 ~ 5VDC	
Analog flow rate output signal		0 ~ 5VDC	
Operating differential pressure	150 ~ 300kPa		100 ~ 300kPa
Withstand pressure		1MPa(G)	
Operating temperature		0 ~ 60°C 0 ~ 80% RH	
Leak integrity		NC : $1 \times 10^{-11}$ Pa · m <sup>3</sup> / sec He, RC : $1 \times 10^{-7}$ Pa · m <sup>3</sup> / sec He	
Wetted materials		SUS316L, 17-7PH Stainless, High alloy ferritic Stainless	
Seal materials		NC : Ni, RC : Viton®	
Power supply requirement		+15 ~ 30VDC (+15VD 400mA)	
Mounting position		Horizontally downward or vertical direction of the connector	
Analog connector		Dsub 15pin	
Control valve actuator		Solenoid actuator	
Weight		1.6kg	

\* Except the fluid which erodes stainless, such as HCl and HF