

# Coriolis Mass Flow Controller : LV-50S



## Product Introduction

Coriolis mass flow meters are highly regarded for their measurement accuracy and their unaffected fluid properties. This technology is LV50-S applied to very low flow measurements, and the PID controller and batch function are integrated for flow control or dosing.



1 Food industry,  
(Petro) chemistry

2 Semiconductor  
processing

3 Fermentation  
equipment

4 Fuel cell  
technology

5 Pharmaceutical  
industry

6 Various instrumental  
analyses

## Product Overview

- Direct measurement of mass flow
- Accuracy gas up to  $\pm 0.8\%$  F.S, liquid up to  $\pm 0.5\%$
- No dead zone
- Fast response and fast adjustment
- High precision and good repeatability
- Integrated PID controller
- Cost effective
- High reliability and long life
- No thermal drift, negligible temperature shift and time drift
- Simultaneous output of fluid density and temperature
- High viscosity fluid and high density gas can be measured
- No obvious vibration to the environment

# Coriolis Mass Flow Controller : LV-50S



## Product parameters

Coriolis mass flow controllers are highly regarded for their measurement accuracy and unaffected fluid properties. The LV50-S consists of a uniquely shaped single-loop sensor that forms part of the oscillation system. As the fluid flows through the sensor loop, the Coriolis force causes a variable phase shift, which the sensor detects and transmits to the DSP processor on the integrated circuit board for computation. The resulting variable phase shift results in an output signal that is strictly proportional to the actual mass flow rate, enabling unmatched ultra-high performance even under varying operating conditions such as pressure, temperature, density, conductivity, and viscosity.

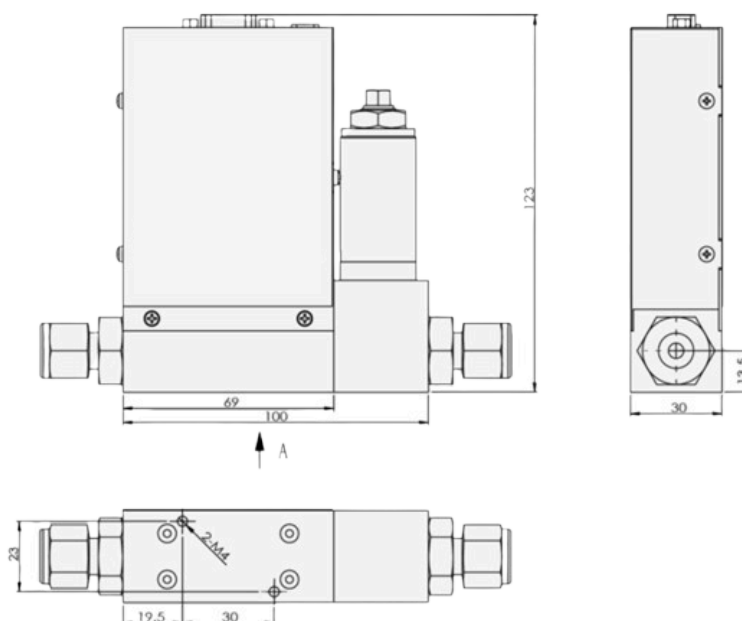
LV50-S measure mass flow, fluid density, and temperature simultaneously and output, providing two levels of accuracy:  $\pm 0.25\%$  for liquid measurements or  $\pm 0.5\%$  for gas measurements. It is enough to meet the needs of most customers, and can be applied to various tests in the laboratory, but also in the industrial environment with complex environments.

Measuring range	0~30kg/h
Measurement and control range	The flow metering ratio is 100:1 and the controller has a 50:1 ratio
Accuracy (Full Scale)	$\pm 0.8\%F.S$
stability	$\pm 0.1\%F.S$
Repeatability	$\pm 0.05\%F.S$
Response time	<0.2s
Digital	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
Power supply	$\pm 15VDC$ 、24VDC
Operating temperature	0~70°C
Pressure rating	100bar
Maximum with stand pressure	3MPa/10MPa
Electrical connections	DB9 wells
Leakage rate	$2 \times 10^{-9} Pa \cdot m^3/S$
Installation location	Install anywhere
Base Material	stainless steel
Exterior sealing material	metal
Joint	$\varphi 6$ , $\varphi 8$ , $\varphi 10$ , $\varphi 12$ , flange mounted

# Coriolis Mass Flow Controller : LV-50S



The product size drawing



**HIATT TAMARIND COMPANY LIMITED**

26 SOI NAKKRILA LAEMTHONG 7,  
SAPHAN SUNG, SAPHAN SUNG, BANKOK 10250

Tel. +66 8 5368 1902  
+66 8 5393 3993

**Sales1@hiattthai.com**

# Coriolis Mass Flow Controller : LV-50



## Product Introduction

Coriolis mass flow controllers are highly regarded for their measurement accuracy and unaffected fluid properties. This technology is LV-50 applied to very low flow measurements, and the PID controller and batch function are integrated for flow control or dosing.



1 Food industry,  
(Petro) chemistry

2 Semiconductor  
processing

3 Fermentation  
equipment

4 Fuel cell  
technology

5 Pharmaceutical  
industry

6 Various instrumental  
analyses

## Product Overview

- Direct measurement of mass flow rate
- Accuracy gas up to  $\pm 0.5\%$  F.S, liquid up to  $\pm 0.25\%$
- No dead zone
- Fast response and fast adjustment
- High precision, Good repeatability
- Integrated PID controller to adjust the flow rate
- Cost effective
- High reliability and long life
- No thermal drift, negligible temperature shift and time drift
- Fluid density and temperature can be output at the same time
- High viscosity fluid and high density gas can be measured
- Vibrations to the environment are not noticeable

# Coriolis Mass Flow Controller : LV-50



## Product parameters

Coriolis mass flow controllers are highly regarded for their measurement accuracy and unaffected fluid properties. The LV-50 consists of a uniquely shaped single-loop sensor that forms part of the oscillation system. As the fluid flows through the sensor loop, the Coriolis force causes a variable phase shift, which the sensor detects and transmits to the DSP processor on the integrated circuit board for computation. The resulting variable phase shift results in an output signal that is strictly proportional to the actual mass flow rate, enabling unmatched ultra-high performance even under varying operating conditions such as pressure, temperature, density, conductivity, and viscosity.

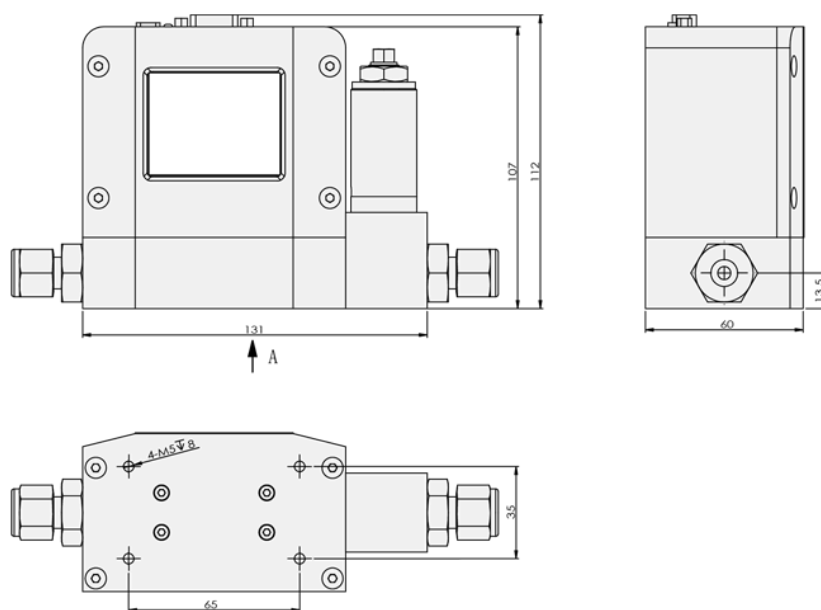
LV-50 measure mass flow, fluid density, and temperature simultaneously and output, providing two levels of accuracy:  $\pm 0.25\%$  for liquid measurements or  $\pm 0.5\%$  for gas measurements. It is enough to meet the needs of most customers, and can be applied to various tests in the laboratory, but also in the industrial environment with complex environments.

Measuring range	0.2~50kg/h
Measurement and control range	The flow metering ratio is 100:1 and the controller has a 50:1 ratio
Accuracy (Full Scale)	Gas: $\pm 0.5.0\%$ F.S, liquid $\pm 0.25.0\%$ F.S
stability	$\pm 0.1\%$ F.S
Repeatability	$\pm 0.05\%$ F.S
Response time	<0.2s
Digital	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
Power supply	$\pm 15$ VDC , 24VDC
Operating temperature	0~70°C
Pressure rating	100bar
Maximum with stand pressure	3MPa/10MPa
Electrical connections	DB9 wells
Leakage rate	$2 \times 10^{-9}$ SCCSHe
Installation location	Install anywhere
Base Material	stainless steel
Exterior sealing material	metal
Joint	$\varnothing 6$ , $\varnothing 8$ , $\varnothing 10$ , $\varnothing 12$ , flange mounted

# Coriolis Mass Flow Controller : LV-50



The product size drawing



**HIATT TAMARIND COMPANY LIMITED**

26 SOI NAKKRILA LAEMTHONG 7,  
SAPHAN SUNG, SAPHAN SUNG, BANKOK 10250

Tel. +66 8 5368 1902  
+66 8 5393 3993

**Sales1@hiattthai.com**

# Coriolis Mass Flow Controller : LV-100



## Product Introduction

Coriolis mass flow meters are highly regarded for their measurement accuracy and their unaffected fluid properties. This technology is LV-100 applied to very low flow measurements, and the PID controller and batch function are integrated for flow control or dosing.



1 Food industry,  
(Petro)chemistry

2 Semiconductor  
processing

3 Fermentation  
equipment

4 Fuel cell  
technology

5 Pharmaceutical  
industry

6 Various instrumental  
analyses

## Product Overview

- Direct measurement of mass flow
- Accuracy gas up to  $\pm 0.5\%$  F.S, liquid up to  $\pm 0.25\%$
- No dead zone
- Fast response and fast adjustment
- High precision and good repeatability
- Integrated PID controller
- Cost effective
- High reliability and long life
- No thermal drift, negligible temperature shift and time drift
- Can output fluid density and temperature at the same time
- High viscosity fluid and high density gas can be measured
- No obvious vibration to the environment

# Coriolis Mass Flow Controller : LV-100



## Product parameters

Coriolis mass flow meters are highly regarded for their measurement accuracy and their unaffected fluid properties. The LV-100 consists of a uniquely shaped single-loop sensor that forms part of the oscillation system. As the fluid flows through the sensor loop, the Coriolis force causes a variable phase shift, which the sensor detects and transmits to the DSP processor on the integrated circuit board for computation. The resulting variable phase shift results in an output signal that is strictly proportional to the actual mass flow rate, enabling unmatched ultra-high performance even under varying operating conditions such as pressure, temperature, density, conductivity, and viscosity.

LV-100 measure mass flow, fluid density, and temperature simultaneously and output, providing two levels of accuracy:  $\pm 0.25\%$  for liquid measurements or  $\pm 0.5\%$  for gas measurements. It is enough to meet the needs of most customers, and can be applied to various tests in the laboratory, but also in the industrial environment with complex environments.

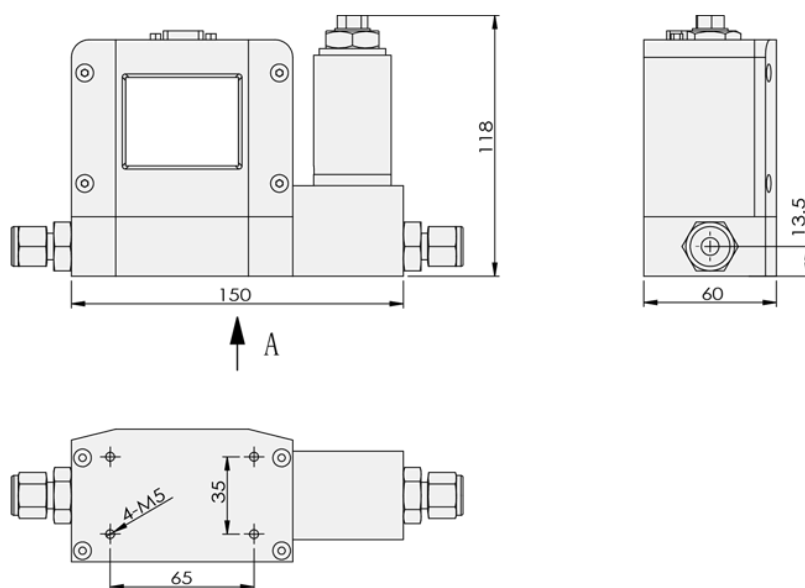
Measuring range	1~100kg/h
Measurement and control range	The flow metering ratio is 100:1 and the controller has a 50:1 ratio
Accuracy (Full Scale)	Gas: $\pm 0.5.0\%$ F.S, liquid $\pm 0.25.0\%$ F.S
stability	$\pm 0.1\%$ F.S
Repeatability	$\pm 0.05\%$ F.S
Response time	<0.2s
Digital	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
Power supply	$\pm 15$ VDC, 24VDC
Operating temperature	0~70°C
Pressure rating	100bar
Maximum with stand pressure	3MPa/10MPa
Electrical connections	DB9 wells
Leakage rate	$2 \times 10^{-9}$ SCCSHe
Installation location	Install anywhere
Base Material	stainless steel
Exterior sealing material	metal
Joint	$\varnothing 6$ , $\varnothing 8$ , $\varnothing 10$ , $\varnothing 12$ , flange mounted



# Coriolis Mass Flow Controller : LV-100



## The product size drawing



### HIATT TAMARIND COMPANY LIMITED

26 SOI NAKKRILA LAEMTHONG 7,  
SAPHAN SUNG, SAPHAN SUNG, BANKOK 10250

Tel. +66 8 5368 1902  
+66 8 5393 3993

[Sales1@hiattthai.com](mailto:Sales1@hiattthai.com)

# Coriolis Mass Flow Controller : LV-300



## Product Introduction

Coriolis mass flow meters are highly regarded for their measurement accuracy and their unaffected fluid properties. This technology is LV-300 applied to very low flow measurements, and the PID controller and batch function are integrated for flow control or dosing.



1 Food industry,  
(Petro)chemistry

2 Semiconductor  
processing

3 Fermentation  
equipment

4 Fuel cell  
technology

5 Pharmaceutical  
industry

6 Various instrumental  
analyses

## Product Overview

- Direct measurement of mass flow
- Accuracy gas up to  $\pm 0.5\%$  F.S, liquid up to  $\pm 0.25\%$
- No dead zone
- Fast response and fast adjustment
- High precision and good repeatability
- Integrated PID controller
- Cost effective
- High reliability and long life
- No thermal drift, negligible temperature shift and time drift
- Can output fluid density and temperature at the same time
- High viscosity fluid and high density gas can be measured
- No obvious vibration to the environment

# Coriolis Mass Flow Controller : LV-300



## Product parameters

Coriolis mass flow meters are highly regarded for their measurement accuracy and their unaffected fluid properties. The LV-300 consists of a uniquely shaped single-loop sensor that forms part of the oscillation system. As the fluid flows through the sensor loop, the Coriolis force causes a variable phase shift, which the sensor detects and transmits to the DSP processor on the integrated circuit board for computation. The resulting variable phase shift results in an output signal that is strictly proportional to the actual mass flow rate, enabling unmatched ultra-high performance even under varying operating conditions such as pressure, temperature, density, conductivity, and viscosity.

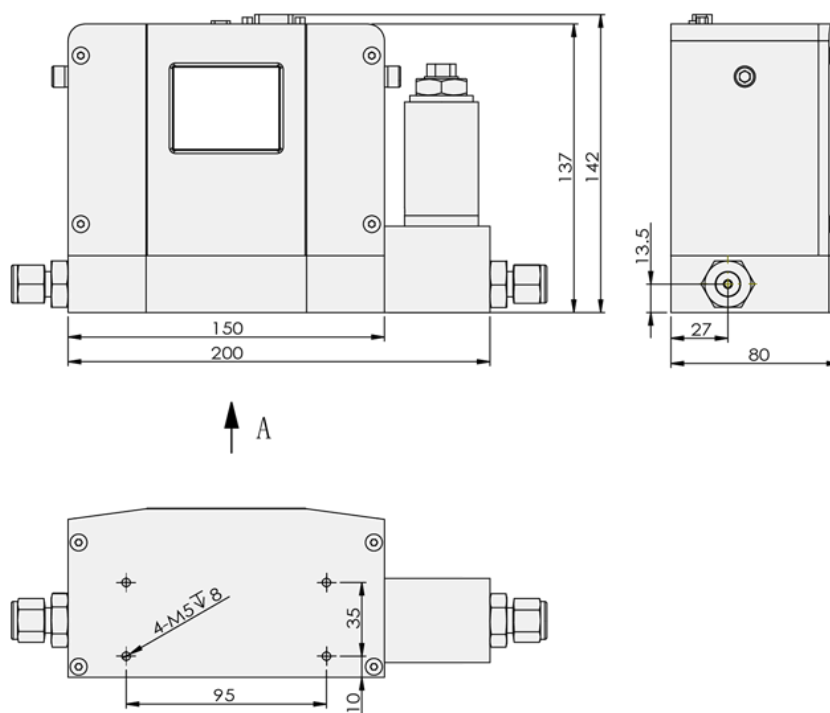
LV-300 measure mass flow, fluid density, and temperature simultaneously and output, providing two levels of accuracy:  $\pm 0.25\%$  for liquid measurements or  $\pm 0.5\%$  for gas measurements. It is enough to meet the needs of most customers, and can be applied to various tests in the laboratory, but also in the industrial environment with complex environments.

Measuring range	100~300kg/h
Measurement and control range	The flow metering ratio is 100:1 and the controller has a 50:1 ratio
Accuracy (Full Scale)	Gas: $\pm 0.5.0\%$ F.S, liquid $\pm 0.25.0\%$ F.S
stability	$\pm 0.1\%$ F.S
Repeatability	$\pm 0.05\%$ F.S
Response time	<0.2s
Digital	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
Power supply	$\pm 15$ VDC, 24VDC
Operating temperature	0~70°C
Pressure rating	100bar
Maximum with stand pressure	3MPa/10MPa
Electrical connections	DB9 wells
Leakage rate	$2 \times 10^{-9}$ SCCShE
Installation location	Install anywhere
Base Material	stainless steel
Exterior sealing material	metal
Joint	$\varphi 6$ , $\varphi 8$ , $\varphi 10$ , $\varphi 12$ , flange mounted

# Coriolis Mass Flow Controller : LV-300



The product size drawing



**HIATT TAMARIND COMPANY LIMITED**

26 SOI NAKKRILA LAEMTHONG 7,  
SAPHAN SUNG, SAPHAN SUNG, BANKOK 10250

Tel. +66 8 5368 1902  
+66 8 5393 3993

**Sales1@hiattthai.com**

# Coriolis Mass Flow Controller : LV-50 with pump



## Product Introduction

In some process environments, where a control valve cannot be used to control the flow, such as a fluid vessel that is not allowed to be pressurized, we have introduced a flow meter combination pump to address the flow control problem in these specific process environments.



1 Food industry,  
(Petro)chemistry

2 Semiconductor  
processing

3 Fermentation  
equipment

4 Fuel cell  
technology

5 Pharmaceutical  
industry

6 Various instrumental  
analyses

## Product Overview

- Direct measurement of mass flow
- Accuracy gas up to  $\pm 0.5\%$  F.S, liquid up to  $\pm 0.25\%$
- No dead zone
- Fast response and fast adjustment
- High precision and good repeatability
- Integrated PID controller
- Cost-effective
- High reliability and long life
- No thermal drift, negligible temperature shift and time drift
- Can output fluid density and temperature at the same time
- High viscosity fluid and high density gas can be measured
- No obvious vibration to the environment

# Coriolis Mass Flow Controller : LV-50 with pump



## Product parameters

Measuring range	0.2~50kg/h
Measurement and control range	The flow metering ratio is 100:1 and the controller has a 50:1 ratio
Accuracy (Full Scale)	Gas: $\pm 0.5.0\%$ F.S, liquid $\pm 0.25.0\%$ F.S
stability	$\pm 0.1\%$ F.S
Repeatability	$\pm 0.05\%$ F.S
Response time	<0.2s
Digital	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
Power supply	$\pm 15$ VDC, 24VDC
Operating temperature	0~70°C
Pressure rating	100bar
Maximum with stand pressure	3MPa
Electrical connections	DB9 wells
Leakage rate	$2 \times 10^{-9}$ SCCSHe
Installation location	Install anywhere
Base Material	stainless steel
Exterior sealing material	metal
Joint	$\phi 6$ , $\phi 8$ , $\phi 10$ , $\phi 12$ , flange mounted



**HIATT TAMARIND COMPANY LIMITED**

26 SOI NAKKRILA LAEMTHONG 7,  
SAPHAN SUNG, SAPHAN SUNG, BANKOK 10250

Tel. +66 8 5368 1902  
+66 8 5393 3993

**Sales1@hiattthai.com**