

# ECO FLOW-30M

Digital Mass Flow Meter (Low Range)

# **Product Application**



### **Product Parameters**

Range	2SCCM~30SLM
Measurement and control range	Range ratio 100:1
Accuracy	±1%FS
Linear	±0.5%FS
Repeatability	±0.2%FS
Response time	<0.8s
Digital quantity	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
powered by	±15VDC, 24VDC
Operating temperature	0~50℃
Work Pressure	Working pressure drop: <0.01Mpa
Maximum withstand voltage	3MPa/10MPa
Electrical Connections	DB15 hole
Leak rate	1×10 -9 SCCSHe
Temperature coefficient	±0.025%FS/°C
Base material	Stainless steel
Sealing material	Fluororubber, Neoprene, Nitrile rubber
Connectors	φ3, φ6, 1/8", 1/4"

- Glass Industry
- Solar
- Atmospheric monitoring
- Industrial production
- Petroleum and Petrochemical
- Coal Metallurgy
- Gas production and distribution
- Environmental friendly
- Various instrumental analysis

### **Product Overview**

- Thermal principle, fast response, high precision
- Tubular shunt, not easy to clogApplicable to various low-pressure
- and high-pressure pipelines
- Short preheating time, small zero drift, high reliability
- Digital input/output can use secondary meter or flow computer to control and display flow

ECO FLOW mass flow meter/mass flow controller consists of mass flow sensor, laminar flow stratification components, flow controller regulating valve and amplification control circuit. It is made by using the heat transfer effect of the flowing fluid to change the temperature distribution of the capillary wall.

ECO FLOW mass flow meter/mass flow controller uses the principle of temperature difference calorimetry before and after capillary heat transfer to measure the mass flow of gas, which is not affected by temperature and pressure. The flow signal measured by the sensor is amplified and then compared with the set voltage. The difference is used to drive the control valve, and the closed-loop control of the flow through the channel is equal to the set flow.



Digital Mass Flow Controller (Low Range)

# **Product Application**



### **Product Parameters**

Range	2SCCM~30SLM
Measurement and control range	Range ratio 50:1
Accuracy	±1%FS
Linear	±0.5%FS
Repeatability	±0.2%FS
Response time	<2s
Digital quantity	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
powered by	±15VDC, 24VDC
Operating temperature	0~50℃
Work Pressure	Working pressure drop: <0.01Mpa
Maximum withstand voltage	3MPa/10MPa
Electrical Connections	DB15 hole
Leak rate	1×10 <sup>-9</sup> SCCSHe
Temperature coefficient	±0.025%FS/°C
Base material	Stainless steel
Sealing material	Fluororubber, Neoprene, Nitrile rubber
Connectors	φ3, φ6, 1/8", 1/4"

# Glass Industry

- Solar
- Atmospheric monitoring
- Industrial production
- Petroleum and Petrochemical
- Coal Metallurgy
- Gas production and distribution
- Environmental friendly
- Various instrumental analysis

#### **Product Overview**

- Thermal principle, fast response, high precision
- Tubular shunt, not easy to clogApplicable to various low-pressure
- and high-pressure pipelines
- Short preheating time, small zero drift, high reliability
- Digital input/output can use secondary meter or flow computer to control and display flow

ECO FLOW mass flow meter/mass flow controller consists of mass flow sensor, laminar flow stratification components, flow controller regulating valve and amplification control circuit. It is made by using the heat transfer effect of the flowing fluid to change the temperature distribution of the capillary wall.

ECO FLOW mass flow meter/mass flow controller uses the principle of temperature difference calorimetry before and after capillary heat transfer to measure the mass flow of gas, which is not affected by temperature and pressure. The flow signal measured by the sensor is amplified and then compared with the set voltage. The difference is used to drive the control valve, and the closed-loop control of the flow through the channel is equal to the set flow.



h

ECO FLOW-30 Mass Flow Meter









ECO FLOW-30 Mass Flow Controller

ECO FLOW-30 030L Ν Serial number Product Type Flow range Communication Flow input signal 8 RS485 С Mass flow controller A1 0~5VDC 002L 2 SLM RS232 М Mass flow meter A2 4~20mA 2 003L 3 SLM A3 1~5VDC 005L 5 SLM 10 SLM 010L 020L 20 SLM 030L 30 SLM With stand voltage range Output signal Sealing material ۷ Fluororubber M 3MPa B1 0~5VDC Nitrile rubber т Z 10MPa (flow meter only) B2 4~20mA Ν Chloroprene rubber Β3 1~5VDC Y Other Measured medium Supply voltage Using connector **Display status** А φ3 Please refer to the media 5 ±15VDC φ6 В Ν Without LCD display referance table for code details. 24VDC 4 1/8" F Х With LCD display G 1/4" Υ Others please contact the manufacturer

HIATT TAMARIND COMPANY LIMITED 26 SOI NAKKRILA LAEMTHONG 7, SAPHAN SUNG, SAPHAN SUNG, BANGKOK 10250

www.luminouzflow.com

Tel. 02-102-0777 085-368-1902 sales@luminouzflow.com service@luminouzflow.com

**Product selection** 



# ECO FLOW-300M

Digital Mass Flow Meter (Mid Range)

## **Product Application**



# **Product Parameters**

Range	30SLM~300SLM
Measurement and control range	Range ratio 100:1
Accuracy	±1%FS
Linear	±0.5%FS
Repeatability	±0.2%FS
Response time	<0.8s
Digital quantity	RS232/485, MODBUS protocol
Analog	0∼5V、4-20mA、1∼5V
powered by	±15VDC, 24VDC
Operating temperature	0~50°C
Work Pressure	Working pressure drop: <0.01Mpa
Maximum withstand voltage	3MPa/10MPa
Electrical Connections	DB15 hole
Leak rate	1×10 <sup>-9</sup> SCCSHe
Temperature coefficient	±0.025%FS/°C
Base material	Stainless steel
Sealing material	Fluororubber, Neoprene, Nitrile rubber
Connectors	φ8, φ10, φ12

### Glass Industry

- Solar
- Atmospheric monitoring
- Industrial production
- Petroleum and Petrochemical
- Coal Metallurgy
- Gas production and distribution
- Environmental friendly
- Various instrumental analysis

### **Product Overview**

- Thermal principle, fast response, high precision
- Tubular shunt, not easy to clogApplicable to various low-pressure
- and high-pressure pipelinesShort preheating time, small zero
- Short preneating time, small zero drift, high reliability
- Digital input/output can use secondary meter or flow computer to control and display flow

ECO FLOW mass flow controller is composed of mass flow sensor, laminar flow stratification parts, flow controller regulating valve and amplification control circuit. It is made by using the heat transfer effect of flowing fluid to change the temperature distribution of the capillary wall.

ECO FLOW uses the principle of temperature difference calorimetry before and after capillary heat transfer to measure the mass flow of gas, which is not affected by temperature and pressure. The flow signal measured by the sensor is amplified and then compared with the set voltage. The difference is used to drive the control valve to close the loop and control the flow through the channel to make it equal to the set flow.



# ECO FLOW-300C

Digital Mass Flow Controller (Mid Range)



# **Product Parameters**

Range	30SLM~300SLM
Measurement and control range	Controller range ratio 50:1
Accuracy	±1%FS
Linear	±0.5%FS
Repeatability	±0.2%FS
Response time	<2s
Digital quantity	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
powered by	±15VDC, 24VDC
Operating temperature	0~50℃
Work Pressure	Working pressure drop: <0.01Mpa
Maximum withstand voltage	3MPa/10MPa
Electrical Connections	DB15 hole
Leak rate	1×10 <sup>-9</sup> SCCSHe
Temperature coefficient	±0.025%FS/°C
Base material	Stainless steel
Sealing material	Fluororubber, Neoprene, Nitrile rubber
Connectors	φ8, φ10, φ12

# **Product Application**

- Glass Industry
- Solar
- Atmospheric monitoring
- Industrial production
- Petroleum and Petrochemical
- Coal Metallurgy
- Gas production and distribution
- Environmental friendly
- Various instrumental analysis

### **Product Overview**

- Thermal principle, fast response, high precision
- Tubular shunt, not easy to clogApplicable to various low-pressure
- and high-pressure pipelinesShort preheating time, small zero
- drift, high reliability
- Digital input/output can use secondary meter or flow computer to control and display flow

ECO FLOW mass flow controller is composed of mass flow sensor, laminar flow stratification parts, flow controller regulating valve and amplification control circuit. It is made by using the heat transfer effect of flowing fluid to change the temperature distribution of the capillary wall.

ECO FLOW uses the principle of temperature difference calorimetry before and after capillary heat transfer to measure the mass flow of gas, which is not affected by temperature and pressure. The flow signal measured by the sensor is amplified and then compared with the set voltage. The difference is used to drive the control valve to close the loop and control the flow through the channel to make it equal to the set flow.











ECO FLOW-300 Mass Flow Meter

**Product selection** 

ECO FLOW-300 Mass Flow Controller

ECO FLOW-30 200L М Serial number Product Type Flow range Communication Flow input signal 030L 30 SLM 8 RS485 С Mass flow controller A1 0~5VDC 050L 50 SLM RS232 М Mass flow meter A2 4~20mA 2 100L 100 SLM A3 1~5VDC 200L 200 SLM 300L 300 SLM With stand voltage range Output signal Sealing material ٧ Fluororubber M 3MPa B1 0~5VDC Nitrile rubber т Z 10MPa (flow meter only) B2 4~20mA Ν Chloroprene rubber Β3 1~5VDC Y Other Measured medium Supply voltage Using connector **Display status** С φ8 Please refer to the media 5 ±15VDC φ10 D Ν Without LCD display referance table for code details. 24VDC 4 F φ12 Х With LCD display Y Others please contact the manufacturer

#### HIATT TAMARIND COMPANY LIMITED 26 SOI NAKKRILA LAEMTHONG 7, SAPHAN SUNG, SAPHAN SUNG, BANGKOK 10250

www.luminouzflow.com

Tel. 02-102-0777 085-368-1902 sales@luminouzflow.com service@luminouzflow.com

sales@lum service@lum



# ECO FLOW-3000M

Digital Mass Flow Meter (Mid-ange)



- Glass Industry
- Solar
- Atmospheric monitoring
- Industrial production
- Petroleum and Petrochemical
- Coal Metallurgy
- Gas production and distribution
- Environmental friendly
- Various instrumental analysis

### **Product Overview**

- Thermal principle, fast response, high precision
- Tubular shunt, not easy to clog
- Applicable to various low-pressure and high-pressure pipelines
- Short preheating time, small zero drift, high reliability
- Digital input/output can use secondary meter or flow computer to control and display flow

ECO FLOW mass flow controller is composed of mass flow sensor, laminar flow stratification parts, flow controller regulating valve and amplification control circuit. It is made by using the heat transfer effect of flowing fluid to change the temperature distribution of the capillary wall.

ECO FLOW uses the principle of temperature difference calorimetry before and after capillary heat transfer to measure the mass flow of gas, which is not affected by temperature and pressure. The flow signal measured by the sensor is amplified and then compared with the set voltage. The difference is used to drive the control valve to close the loop and control the flow through the channel to make it equal to the set flow.



### **Product Parameters**

Range	300SLM~3000SLM
Measurement and control range	Range ratio 100:1
Accuracy	±1%FS
Linear	±0.5%FS
Repeatability	±0.2%FS
Response time	<0.8s
Digital quantity	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
powered by	±15VDC, 24VDC
Operating temperature	0∼50°C
Work Pressure	Working pressure drop: <0.01Mpa
Maximum withstand voltage	3MPa/10MPa
Electrical Connections	DB15 hole
Leak rate	1×10 <sup>-9</sup> SCCSHe
Temperature coefficient	±0.025%FS/°C
Base material	Stainless steel
Sealing material	Fluororubber, Neoprene, Nitrile rubber
Connectors	$\phi$ 12, flange installation



# ECO FLOW-3000C

Digital Mass Flow Controller (Large Range)

# **Product Application**



# **Product Parameters**

Range	300SLM~3000SLM
Measurement and control range	Controller valve control range 50:1
Accuracy	±1%FS
Linear	±0.5%FS
Repeatability	±0.2%FS
Response time	<0.2s
Digital quantity	RS232/485, MODBUS protocol
Analog	0~5V、4-20mA、1~5V
powered by	±15VDC, 24VDC
Operating temperature	0~50℃
Work Pressure	Working pressure drop: <0.01Mpa
Maximum withstand voltage	3MPa/10MPa
Electrical Connections	DB15 hole
Leak rate	1×10 <sup>-9</sup> SCCSHe
Temperature coefficient	±0.025%FS/°C
Base material	Stainless steel
Sealing material	Fluororubber, Neoprene, Nitrile rubber
Connectors	$\phi$ 12, flange installation

### Glass Industry

- Solar
- Atmospheric monitoring
- Industrial production
- Petroleum and Petrochemical
- Coal Metallurgy
- Gas production and distribution
- Environmental friendly
- Various instrumental analysis

### **Product Overview**

- Thermal principle, fast response, high precision
- Tubular shunt, not easy to clog
- Applicable to various low-pressure and high-pressure pipelines
- Short preheating time, small zero drift, high reliability
- Digital input/output can use secondary meter or flow computer to control and display flow

ECO FLOW mass flow controller is composed of mass flow sensor, laminar flow stratification parts, flow controller regulating valve and amplification control circuit. It is made by using the heat transfer effect of flowing fluid to change the temperature distribution of the capillary wall.

ECO FLOW uses the principle of temperature difference calorimetry before and after capillary heat transfer to measure the mass flow of gas, which is not affected by temperature and pressure. The flow signal measured by the sensor is amplified and then compared with the set voltage. The difference is used to drive the control valve to close the loop and control the flow through the channel to make it equal to the set flow.



ECO FLOW-3000 Mass Flow Meter

**Product selection** 









ECO FLOW-3000 Mass Flow Controller

ECO Flow -3000 300L Serial number Product Type Flow range Communication Flow input signal 8 RS485 С Mass flow controller A1 0~5VDC 300L 300SLM RS232 М Mass flow meter A2 4~20mA 2 1000SLM 1000L A3 1~5VDC 2000L 2000SLM 3000L 3000SLM With stand voltage range Output signal Sealing material ٧ Fluororubber M 3MPa B1 0~5VDC Nitrile rubber т Z 10MPa (flow meter only) B2 4~20mA Ν Chloroprene rubber Β3 1~5VDC Y Other Measured medium Using connector Supply voltage Display status Е φ12 Please refer to the media 5 ±15VDC Flange installation Ν Without LCD display referance table for code details. 24VDC L 4 Υ Others please contact Х With LCD display the manufacturer

HIATT TAMARIND COMPANY LIMITED 26 SOI NAKKRILA LAEMTHONG 7, SAPHAN SUNG, SAPHAN SUNG, BANGKOK 10250 www.luminouzflow.com Tel. 02-102-0777 085-368-1902 sales@luminouzflow.com service@luminouzflow.com