

# Liquid Mass Flow Controller

# LC-2100

## 液体用マスフローコントローラ



LC-2100は、各種液体材料の高精度流量制御を実現した、液体用マスフローコントローラです。

流量計測には、当社独自の熱式マスフローセンサ(特許出願中)を採用、電子回路はデジタル化され、高速、高精度の流量制御が可能です。

### ■特長

- 独自の周囲温度補償方式液体流量センサ(特許出願中)を内蔵し、高精度(±2%FS)の流量制御を実現。
- バイパスレス方式流量計を採用、器差、傾斜影響を軽減し高精度化を達成。
- 電子回路はデジタル化による性能向上がはかられ、アラーム機能、外部機器との通信機能を保有。
- 流量制御バルブには、高信頼性の、ノーマリクローズ型ソレノイドアクチュエータを採用し、安全性に配慮。
- シール材質には、金(Au)を使用して耐薬品性を確保すると共に、リークを追放。

### ■用途

- 各種薬液、有機溶媒、有機化合物溶液、高純度水等の流量計測および制御。

Liquid mass flow controller LC-2100 controls various liquid material flow rates with high precision.

LINTEC's original thermal mass flow sensor (Patent Pending) is incorporated for measuring flow rate. Digital electronic circuit provides high speed and highly reliable flow control.

### Features:

- LINTEC's original ambient temperature compensation type liquid flow sensor (Patent Pending) is incorporated to provide high precision flow rate control (±2% of FS).
- Bypassless type flow meter is incorporated to reduce inherent error or influence of inclination and to provide a high precision instrument.
- Digital electronic circuits are incorporated to improve the features including alarm or communication with external apparatus.
- Highly reliable, normally closed type solenoid actuator is incorporated into the flow control valve to provide high security.
- High chemical resistance and leak free with gold (Au) seal.

### Application:

- Measuring and controlling of various liquids such as chemicals, organic solvents, organic compound liquids or deionized water etc.



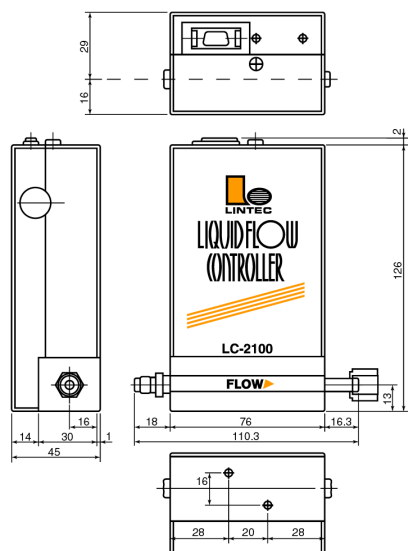
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## SPECIFICATIONS

Model LC-2100				
Valve operation mode		Normally closed	Standard fittings	6.35mmVCR, 3.2mmVCR
Range (Full scale)	g/min	0.05, 0.1, 0.2, 0.5, 1.0	Flow rate command	Volts DC 0-5
C <sub>2</sub> H <sub>5</sub> OH equivalent		2.0, 5.0, 10	Flow rate output	Volts DC 0-5
Minimum controllable flow rate	%F.S.	5	Power supply requirements	+15VDC, 100mA
Response time	seconds	4		-15VDC, 200mA
Accuracy	%F.S.	±2	Alarm display	Normal Green LED flash
Linearity	%F.S.	±1.0		Condition change Red LED flash
Repeatability	%F.S.	±0.2		Abnormal Red LED continuous on
Required differential pressure	kPa	50~150	Zero adjustment	Zero switch and auxiliary input
	(kgf/cm <sup>2</sup> )	(0.5~1.5)	Digital communication	Digital interface RS-232C
Withstand pressure	kPa	1000		Alarm output Open collector output
	(kgf/cm <sup>2</sup> )	(10)		Zero adj. input ○
Operation temperature	°C	15-35		Preset input ○
Temperature coefficient	%F.S./°C	Zero 0.1 Span 0.1	Connector & cable	Main connector D05, 8 Pin
Leak integrity	Pa.m <sup>3</sup> /sec	<1 × 10 <sup>-11</sup>		Communication For D-Sub 9 Pin CC-DOSF
	atm.cc/sec	<1 × 10 <sup>-10</sup>		Cable (Optional) For D-Sub 25 Pin CC-T2
Control valve actuator		Solenoid actuator	Mounting direction	Free
Materials exposed to fluids	Body	SUS-316L	Weight	gram 1,100
	Control valve	Ni-Co (Diaphragm)	Option	LEP (Surface polishing)
		PCTFE		CP (Anti-corrosive plating)
	Seals	Gold (Au)		PT (Pt seal)
	Sensor	SUS-316L		



The content in this catalog is organized as that of June 2001.  
Specifications/descriptions may be modified without notice due to improvement.  
Before shipping to a third country, consult LINTEC.

**! WARNING!!** Read and understand completely the Operation Manual to secure your safety.

**株式会社 リンテック**  
LINTEC

<http://www.lintec-mfc.co.jp>

本社・工場 滋賀県野洲郡中主町乙窪588-1 〒520-2435  
 滋賀営業所 TEL.077-589-5377 FAX.077-589-5378  
 東京営業所 東京都中央区日本橋茅場町2-1-11 ビルックス茅場町302号 〒103-0025  
 TEL.03-3808-0191 FAX.03-3808-0194  
 熊本営業所 熊本県熊本市健軍本町1-11 サンライズビル304号 〒862-0910  
 TEL.096-368-0511 FAX.096-369-6877

**LINTEC CO., LTD.**

Tokyo Office 302 BuiLux Kayabacho, 2-1-11 Nihonbashi-Kayabacho, Chuo-ku Tokyo 103-0025, Japan  
 TEL.+81-(0)3-3808-0191 FAX.+81-(0)3-3808-0194