

Digital Mass Flow Controller

MC-3100E/3200E

デジタルマスフローコントローラー



特長

- ★高性能、低価格を実現（メタルシール、ピエゾバルブ、デジタル）
- ★MC-2000シリーズとソフトウェアコンパチブル
- ★各種表面実装対応
- ★RS232C、RS485を標準装備（内部ジャンパーで切替）
- ★アナログMFCとの互換性確保
- ★流量積算機能標準装備
- ★アラーム機能標準装備
- ★デジタルPID制御
- ★周囲温度補償型センサー採用（USA、国内特許）

タイプ

- *MC-3102E-NO ノーマリーオープンタイプ（10SCCM～5SLM F.S.）
- *MC-3202E-NO ノーマリーオープンタイプ（10SLM～20SLM F.S.）
- *MC-3102E-NC ノーマリークローズタイプ（10SCCM～5SLM F.S.）
- *MC-3202E-NC ノーマリークローズタイプ（10SLM～20SLM F.S.）

オプション

表面実装： Cシール（IPC�, IPCC）
Wシール（IPWN, IPWC）
CSシール（IPCSN, IPCSC）
Bシール（IPB）

LEP: 内面研磨処理

LG: 液化ガス対応

SR: 超微小流量（5.2、1SCCM F.S. NOタイプのみ）

WR: ワイドレンジ制御（0.5～100%F.S.）

FEATURES

- ★High performed digital MFC with low cost of ownership (metal seal, piezo valve & high accuracy)
- ★Software compatible with MC-2000 series
- ★Surface mounting option available (SEMI Std. 79.8mm or 92mm)
- ★RS232C and RS485 digital interface (on-board jumper selection)
- ★Compatible with analog MFC
- ★Flow totalize function
- ★Alarm function
- ★Optimized digital PID control
- ★Patented ambient temperature compensated flow sensor (U.S. and Japan)

TYPES

- | | |
|--------------|--|
| *MC-3102E-NO | Normally open valve (10SCCM～5SLM F.S.) |
| *MC-3102E-NC | Normally closed valve (10SCCM～5SLM F.S.) |
| *MC-3202E-NO | Normally open valve (10SLM～20SLM F.S.) |
| *MC-3202E-NC | Normally closed valve (10SLM～20SLM F.S.) |

OPTIONS

Surface mounting: C-seal (IPC�, IPCC)
W-seal (IPWN, IPWC)
CS-seal (IPCSN, IPCSC)
B-seal (IPB)

LEP: Surface polishing

LG: For liquefied gases

SR: Small flow rate (5SCCM, 2SCCM & 1SCCM for NO type)

WR: Wide range control (0.5 to 100%F.S.)



Digital Mass Flow Controller

MC-3100E/3200E

SPECIFICATIONS

Model	MC-3102E-NO MC-3102E-NC	MC-3202E-NO MC-3202E-NC
Range (Full scale) N ₂ equivalent	10, 20, 30, 50, 100, 200, 300, 500SCCM 1, 2, 3, 5SLM	10, 20SLM
Valve operation mode	Normally open valve NO Normally closed valve NC	
Surface polishing	Optional	
Minimum controllable flow rate	2%F.S.	
Analog flow rate output	0-5V DC (Proportional to flow rate)	
Analog flow rate command	0-5V DC (Proportional to flow rate)	
Accuracy	±1%F.S.	
Linearity	±0.5%F.S.	
Repeatability	±0.2%F.S.	
Response time	1sec (typical)	
Required differential pressure	49~294kPa	98~294kPa (10SLM) 147~294kPa (20SLM)
Withstand pressure	980kPa	
Temperature coefficient	Zero	±0.02%F.S./°C
	Span	±0.02%F.S./°C
Operation temperature	15-50°C	
Leak integrity	1×10 ⁻¹¹ Pa·m ³ /sec He	
Materials exposed by gas	Stainless steel 316L, PCTFE, Au	
Control valve actuator	Piezo electric actuator	
Standard fitting	6.35mmVCR compatible	
Power supply requirement	+15V:120mA -15V:100mA	
Digital interface	RS232C, RS485	
Alarm output	Open collector transistor output	

ORDERING INFORMATION

MC-3102E-AA-BB-CC-DD-EE-FF
MC-3202E-AA-BB-CC-DD-EE-FF

AA: Valve mode

NO (Normally open)
NC (Normally closed)

BB: Fitting

6.35mmVCR
IPCN (C-seal 92mm)
IPCC (C-seal 79.8mm)
IPWN (W-seal 92mm)
IPWC (W-seal 79.8mm)
IPCSN (CS-seal 92mm)
IPCSC (CS-seal 79.8mm)
IPB (B-seal 96mm)

CC: Option

LEP (Surface polishing)
LG (Liquefied gases)
SR (Small flow rate)
WR (Wide range control)

DD: Gas to flow

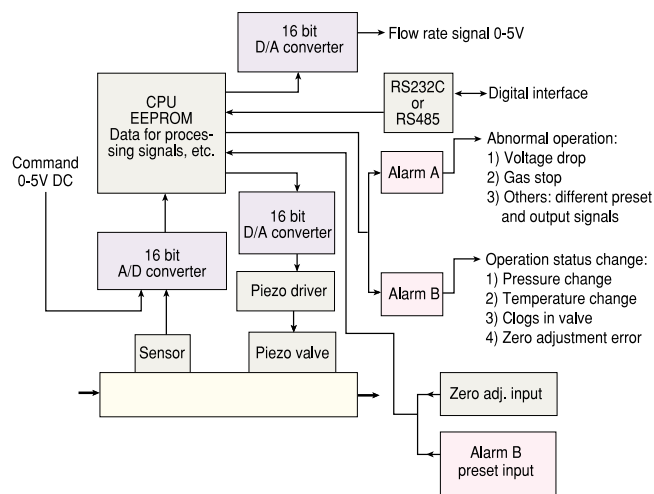
EE: Flow rate

FF: Unit of flow rate

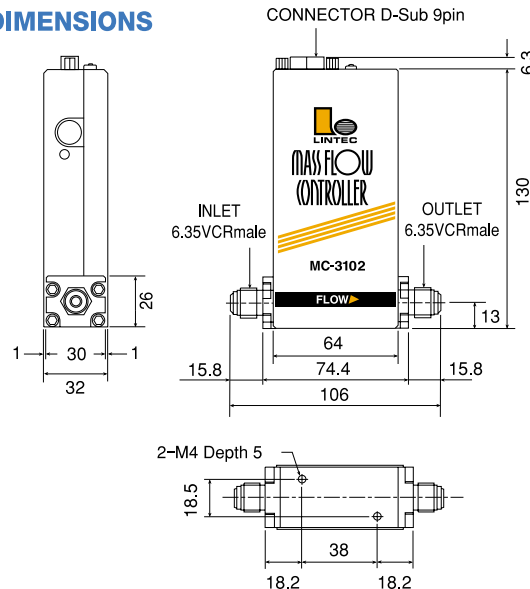
SCCM (Standard ml/min at 0°C)

SLM (Standard l/min at 0°C)

SCHEMATIC DIAGRAM



DIMENSIONS



*The content in this catalog is organized as that of May 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 Operating Manual to secure your safety.

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



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

本社・工場 滋賀県野洲郡中主町乙達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 熊本県熊本市健康本町1-11 サンライズビル304号 〒862-0910
TEL.096-368-0511 FAX.096-369-6877