

# GAS | Products For Gas Applications

## High Performance Digital Mass Flow Controller MC-3000L Series



### ■ Outlines

- MC-3000L Series: High performance mass flow controller with high accuracy of  $\pm 1.0\%$  S.P. guaranteed

### ■ Features

- High accuracy  $\pm 1.0\%$  S.P.
- RS-485 digital interface
- LINTEC's unique ambient temperature-compensated sensor incorporated
- Highly functional upon installation of microprocessor
- Diaphragm valve with small dead volume
- High-speed and high performance piezoelectric actuator
- Long-term leak tightness ensured using metal seal
- By using metal case and various filters, stable operation can be achieved through reduction of radio frequency noises and electromagnetic field interferences

### CE RoHS

Model	MC-3102L	MC-3202L	MC-3252L	MC-3452L	MC-3462L	MC-3472L	MC-3582L
Flow rate in Nitrogen (Full scale)	5 ~ 5,000SCCM	~ 20SLM	~ 50SLM	~ 50SLM	~ 150SLM	~ 200SLM	~ 400SLM
Flow rate control range	2 ~ 100% F.S.						
Valve operation mode	Normally open, Normally closed			Normally closed			
Accuracy	100% F.S. ~ 25% F.S. $\pm 1.0\%$ S.P. 25% F.S. ~ 2% F.S. $\pm 0.25\%$ F.S.			100% F.S. ~ 35% F.S. $\pm 1.0\%$ S.P. 35% F.S. ~ 2% F.S. $\pm 0.35\%$ F.S.		$\pm 1.0\%$ F.S.	$\pm 2.0\%$ F.S.
Repeatability	$\pm 0.2\%$ F.S.			$\pm 0.5\%$ F.S.		$\pm 1.0\%$ F.S.	
Response time	1 sec						2 sec
Analog flow rate setting signal	0 ~ 5VDC						
Analog flow rate output signal	0 ~ 5VDC						
Operating differential pressure	50 ~ 300kPa	Normally open 50 ~ 300kPa (~ 10SLM) 100 ~ 300kPa (~ 20SLM) Normally closed 100 ~ 300kPa (~ 10SLM) 200 ~ 300kPa (~ 20SLM)	100 ~ 300kPa (~ 30SLM) 150 ~ 300kPa (~ 50SLM)	150 ~ 500kPa	250 ~ 500kPa	300 ~ 500kPa	350 ~ 500kPa
Withstand pressure	1MPa(G)						
Temperature coefficient	Zero	$\pm 0.02\%$ F.S. / °C			$\pm 0.1\%$ F.S. / °C		
	Span	$\pm 0.02\%$ F.S. / °C	$\pm 0.04\%$ F.S. / °C	$\pm 0.08\%$ F.S. / °C	$\pm 0.1\%$ F.S. / °C		
Operating temperature	5 ~ 50°C 0 ~ 80% RH						
Leak integrity	$1 \times 10^{-11} \text{Pa} \cdot \text{m}^3 / \text{sec He}$						$1 \times 10^{-9} \text{Pa} \cdot \text{m}^3 / \text{sec He}$
Materials exposed to gas	SUS316L, PCTFE			SUS316L, SUS304, Teflon®			
Seal materials	Au						
Power supply requirement	+15VDC $\pm 3\%$ 100mA, -15VDC $\pm 3\%$ 50mA						
Mounting position	Free						
Analog connector	Dsub 9pin						
Digital interface	RJ45/RS-485						
Control valve actuator	Piezoelectric actuator						
Weight	1.0kg			1.4kg		2.4kg	