

# MASS FLOW CONTROLLERS

## TMFC SERIES – Flow Rate & Totalizer LCD Display – Flow Rate With or Without LCD Display

**±1% Accuracy**  
**Linear Output**  
**Thermal Technology**  
**For Using in Non Corrosive Gas**  
**For Flow Rates up to 200 SLM**  
**Power Supply Included**

**Approvals:**



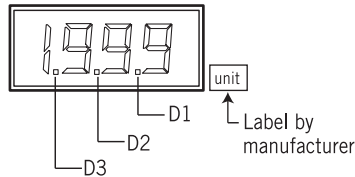
The NEW-FLOW Thermal Mass Flow Meters provide high performance. Thermal Technology offers advantages in accuracy, sensitivity and turn quality components and the latest technology are combined to provide reliable, compact meters and controllers. The TMFC Series comes With or Without an LCD Display; or Flow Rate with Totalizer LCD Display. All models come with linear 0-5VDC and 4-20mA output. The TMFC Series measures the mass flow rate of gases in 3 ranges from 0-100 SLM to 0-200 SLM as shown in the range table. The TMFC Series combines a mass flow transducer with an electromagnetic proportional valve. Valves are not recommended as shut off valves. Controllers use a 0-5VDC linear set-point signal supplied from the local set-point pot or from a remote source.

### Technical Data

- Type:** Without LCD Display; Flow Rate with LCD Display;  
Flow Rate with LCD Display & Blue Back Lighted;  
Flow Rate with Totalizer LCD Display & Blue Back Lighted
- Wetted Parts Material:** Standard flowbody–SS316, option available.  
O-ring: Viton or FFKM available
- Output Signal:** 0-5 VDC Linear min. load 1000Ω or 4-20 mA Linear, loop resistance 500Ω
- Input Power:** 24VDC standard
- Accuracy:** ±1% F.S. (including linearity)
- Turn Down Ratio:** 100:1
- Repeatability:** ±0.15% F.S. or Better
- Electric Connection:** 9 Pin Sub “D”
- Process Connection:** ½”NPT female
- Control Signal:** Integral or 0-5 VDC
- Control Valve:** Electromagnetic N/C (Norm. Closed)
- Range:** 0-100 SLM to 0-200 SLM
- Max. Pressure:** 500 psig
- Temperature Range:** 0~50°C
- Response Time:** 1 Second
- Temp. Coefficient:** 0.05% Full Scale per 1°C or Better
- Pressure Coefficient:** 0.01% Full Scale per PSIG or Better
- Flow Unit:** Kg, GAL, Nℓ, Nm<sup>3</sup>, cc, ℓ, M<sup>3</sup>  
(Flow rate with LCD display: Label by manufacturer;  
Flow rate with totalizer LCD display: Unit LCD display)
- Weight:** app. 3.27 kg with power supply  
app. 3.41 kg with power supply & totalizer

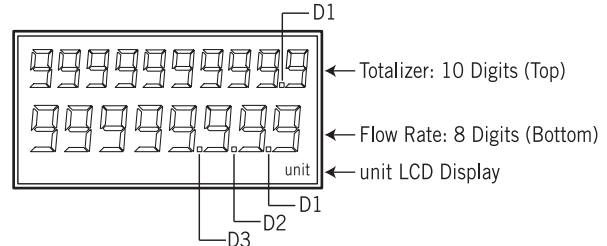
### Display Digital Decimal Point Function

#### Flow Rate with LCD Display:



Range	Decimal Point
0 ~ 1.999	D3
2.0 ~ 19.99	D2
20.0 ~ 199.9	D1
200 ~ 1999	None

#### Flow Rate with Totalizer LCD Display:

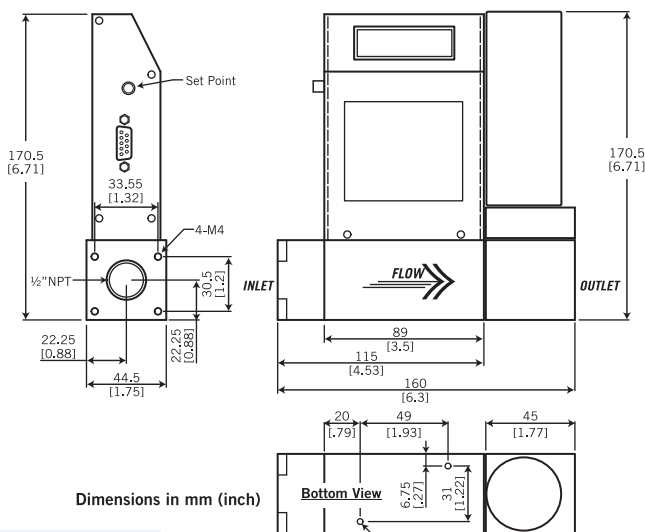


### Operating Differential Pressure

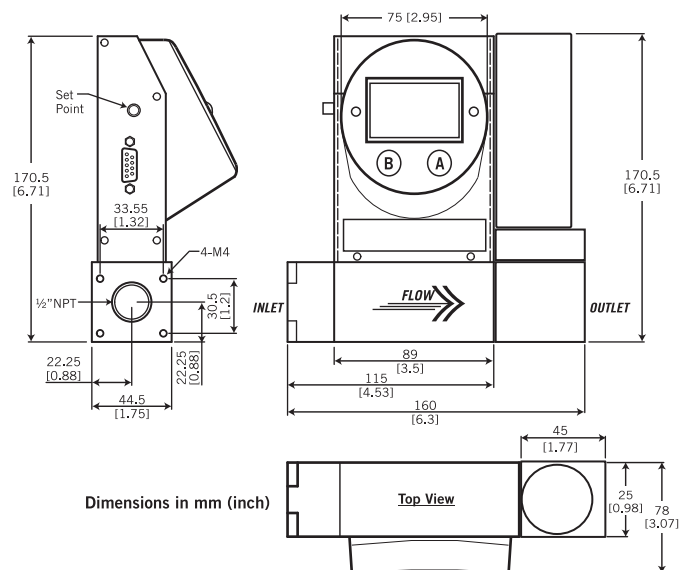
Low Differential Pressure Specification Depend on types of gas and flow rates to be used.  
100 SLM < F.S < 200 SLM (2 kg/cm<sup>2</sup> ~ 3 kg/cm<sup>2</sup>)

### Dimensions

Flow Rate with LCD Display (without LCD available)



Flow Rate with Totalizer LCD Display



\*Tolerance ±1.0mm\*

Range Table

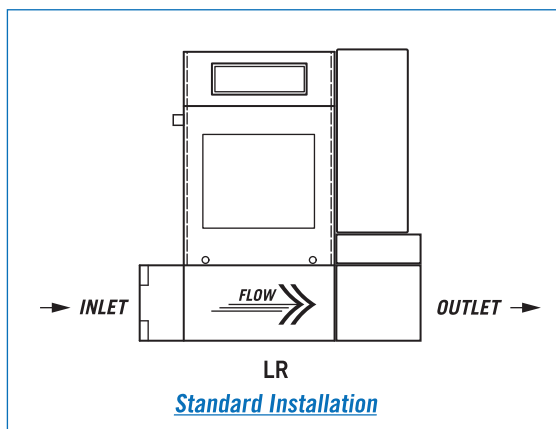
Code	SLM
00	0-100
01	0-150
02	0-200
03	*Custom Flow Rate

**NOTE.**  
\*Please notice that the max. flow rate is 200 SLM.

Ordering Information

TMFC	Code	Flow Range
	00	0~100 SLM
	01	0~150 SLM
	02	0~200 SLM
	03	*Custom range (please directly fill in the requested range)
	<b>Code</b>	<b>Wetted Parts Material</b>
	A	SS316 (Viton o-ring)
	B	SS316 (FFKM o-ring)
	<b>Code</b>	<b>Process Connection</b>
	1	½"NPT(F)
	<b>Code</b>	<b>Display</b>
	W	Flow Rate with LCD Display
	B	Flow Rate with LCD Display & Blue Back Lighted
	T	Flow Rate with Totalizer LCD Display & Blue Back Lighted
	O	Without LCD Display
	<b>Code</b>	<b>Output Signal</b>
		(1) 0~5 VDC (2) 4~20mA
	<b>Code</b>	<b>Control Signal</b>
	A	Integral (manual operating by set point)
	B	0~5 VDC (from a remote source)
	<b>Code</b>	<b>Input Power</b>
		(1) 24VDC
	<b>Code</b>	<b>Power Supply for 24 VDC</b>
		(1) With (2) Without
	<b>Code</b>	<b>D.P.</b>
		_____ kg/cm <sup>2</sup>
TMFC		
		Complete Ordering Code

Flow Direction



- Please follow the direction of arrow "➔" on the label to install. (As shown on the left is the standard installation.)
- 「Do NOT」 install the controller type by "Vertical ⬆ or ⬆".

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