MASS FLOW CONTROLLERS

TLFC 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 50 SLM
Power Supply Included

The NEW-FLOW Thermomal 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 TLFC 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 TLFC Series measures the mass flow rate of gases in 18 ranges from 0-10 SCCM to 0-50 SLM as shown in the range table. The TLFC 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.

Approvals:

Technical Data

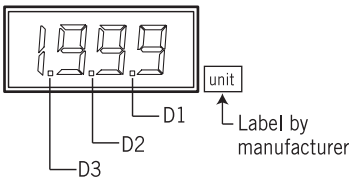
Type: Without LCD Display; Flow Rate with LCD Display;
Flow Rate with LCD Display & Blue Back Lighted;
Flow Rate with Totalizer LCD Display & Blue Back Lighted
Wetted Parts Material: Standard flowbody–SS316, Tapcon,
option available. O-ring: Viton or FFKM available
Output Signal: 0-5 VDC Linear min. load 1000Ω or 4-20 mA Linear,
loop resistance 500Ω
Input Power: 24VDC standard; optional power supply 15VDC 115VAC,
220VAC @500mA
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: ¼"NPT female
Control Signal: Integral or 0-5 VDC
Control Valve: Electromagnetic N/C (Norm. Closed)
Range: 0-10 SCCM to 50 SLM (24VDC);
0-10 SCCM to 20 SLM (15VDC)
Max. Pressure: SS316– 500 psig; Tapcon– 250 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^3, cc, ℓ, M^3
(Flow rate with LCD dispaly: Label by manufacturer;
Flow rate with totalizer LCD display: Unit LCD display)
Weight: app. 1.35 kg with power supply;
app. 1.5 kg with power supply & totalizer

Operating Differential Pressure

FS ≤5 SLM (0.5 kg/cm² ~ 3 kg/cm²)
Low Differential Pressure Specification Depend on types of gas and flow rates to be used.
5 SLM < F.S < 20 SLM (1 kg/cm² ~ 3 kg/cm²)
20 SLM < F.S < 50 SLM (2 kg/cm² ~ 3 kg/cm²)

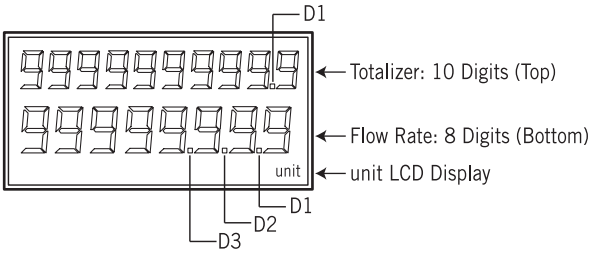
Display Digital Decimal Point Function

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 :



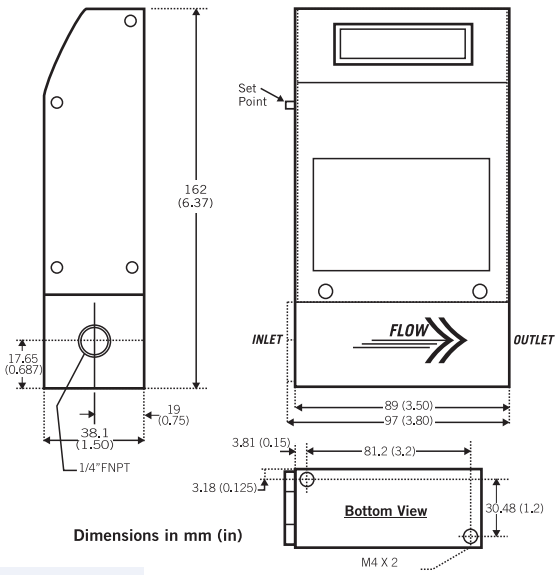
Range Table

Code	SCCM	Code	SLM	Code	SLM
00	0-10	06	0-1	12	0-25
01	0-20	07	0-2	13	0-30
02	0-50	08	0-5	14	0-35
03	0-100	09	0-10	15	0-40
04	0-200	10	0-15	16	0-45
05	0-500	11	0-20	17	0-50
18	Custom Flow Rate				

NOTE.
*Please noteice that the max. flow rate is 50 SLM.

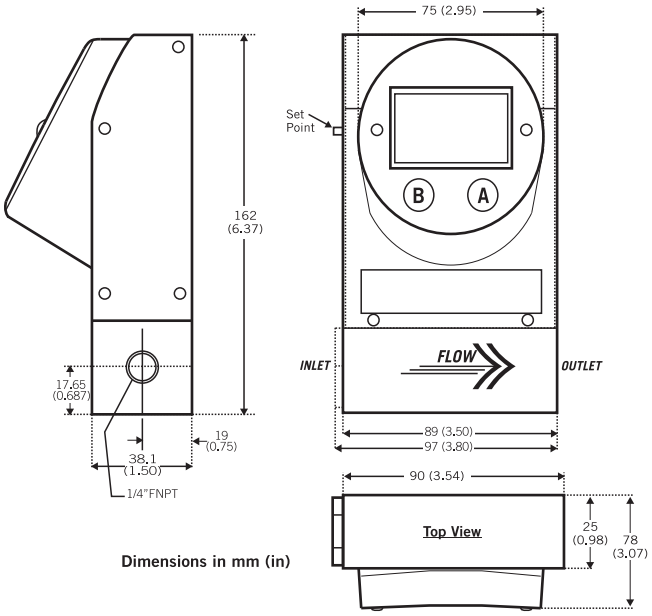
Dimensions

Flow Rate with LCD Dispaly (without LCD available)



Dimensions in mm (in)

Flow Rate with Totalizer LCD Display



Dimensions in mm (in)

Tolerance ±1.0mm

Ordering Information

TLFC	Code	Flow Range								
	00~17	Please refer to the measure range table.		18	*Custom range (please directly fill in the requested range)					

Code	Wetted Parts Material				
A	SS316 (Viton o-ring)	B	SS316 (FFKM o-ring)	T	Tapcon-Plastic

Code	Process Connection
1	¼"NPT(F)

Code	Display
W	Flow Rate with LCD Display
B	Flow Rate wtih LCD Display & Blue Back Lighted
T	Flow Rate with Totalizer LCD Display & Blue Back Lighted
O	Without LCD Display

Code	Output Signal
	(1) 0~5 VDC (2) 4~20mA

Code	Control Signal
A	Integral (manual operating by set point)
B	0~5 VDC (from a remote source)

Code	Input Power
	(1) 24VDC (2) 15VDC

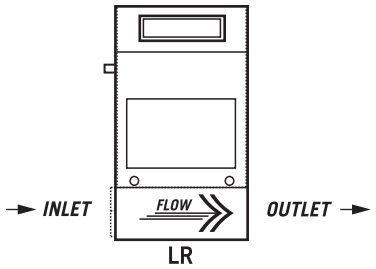
Code	Power Supply for 24 VDC
	(1) With (2) Without

Code	D.P.
	_____ kg/cm²

TLFC										

Complete Ordering Code

Flow Direction



Standard Installation

■ *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 ➔".*