

# MASS FLOW CONTROLLERS

## With or Without LCD Display

### TLFC SERIES

**±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 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 TLFC Series comes with or without an LCD display, and all models come with linear 0-5VDC and 4-20 mA 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 0-5 VDC linear set-point signal supplied from the local set-point pot or from a remote source.

### Technical Data

- Wetted Material:** Standard flowbody– SS316; option available. O-ring– Viton
- Output Signal:** 0-5 VDC Linear min. load 1000Ω or 4-20 mA Linear, loop resistance 500Ω
- Input Power:** 24 VDC standard; optional power supply 15 VDC 115 VAC, 220 VAC @500mA
- Accuracy:** ±1% FS (including linearity)
- Turn Down Ratio:** 100:1
- Repeatability:** ±0.15 FS 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 (24 VDC); 0-10 SCCM to 20 SLM (15 VDC)
- Max. Pressure:** 500 psig (SS316); 250 psig (Tapcon-plastic)
- 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
- Weight:** app. 1.35 kg with power supply

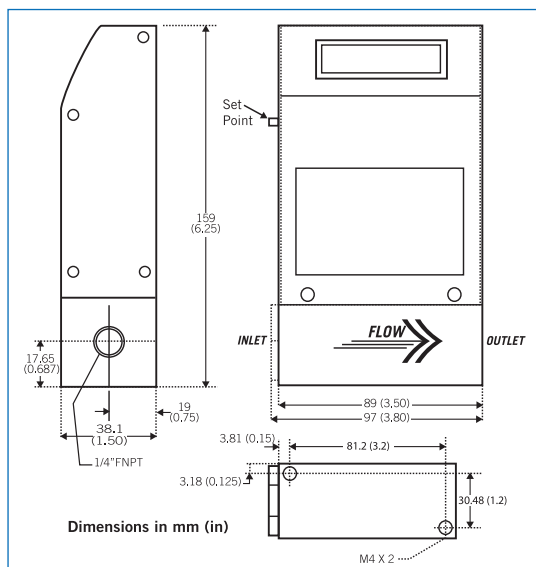
### Range Table

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 (*Please notice that the max. flow range is 50 SLM.)				

### Ordering Information

TLFC	Code	Flow Range	Code	Output Signal
↓	00~17	Please refer to the measure range table.		(1) 0-5 VDC (2) 4-20 mA
	18	*Custom size (please directly fill in the requested range.)		
		<b>Code</b> <b>Wetted Material</b>	<b>Code</b> <b>Control Signal</b>	
		A SS316 T Tapcon-plastic	A Integral (Manual operating by set point) B 0~5VDC (from a remote source)	
		<b>Code</b> <b>Process Connection</b>	<b>Code</b> <b>Input Power</b>	
		1 ¼"NPT(F)	(1) 24VDC (2) 15VDC	
		<b>Code</b> <b>Display</b>	<b>Code</b> <b>Power Supply for 24VDC</b>	
		W With display O Without display	(1) With (2) Without	
			<b>Code</b> <b>D.P.</b>	
			_____ kg/cm <sup>2</sup>	
TLFC			+	Complete ordering code

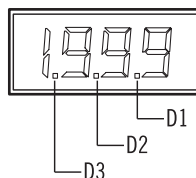
### Dimensions



### Operating Differential Pressure

**F.S ≤ 5 SLM** (0.5 kg/cm<sup>2</sup> ~3 kg/cm<sup>2</sup>)  
 Low differential pressure specification depend on types of gas and flow rates to be used.  
 5 SLM < F.S < 20 SLM (1 kg/cm<sup>2</sup> ~3 kg/cm<sup>2</sup>)  
 20 SLM < F.S < 50 SLM (2 kg/cm<sup>2</sup> ~3 kg/cm<sup>2</sup>)

### Display Digital Decimal Point Function



Range	Decimal Point
0 ~ 1.999	D3
2.00 ~ 19.99	D2
20.0 ~ 199.9	D1
200 ~ 1999	None