# MASS FLOW METERS

## TLF SERIES *With or Without LCD Display*



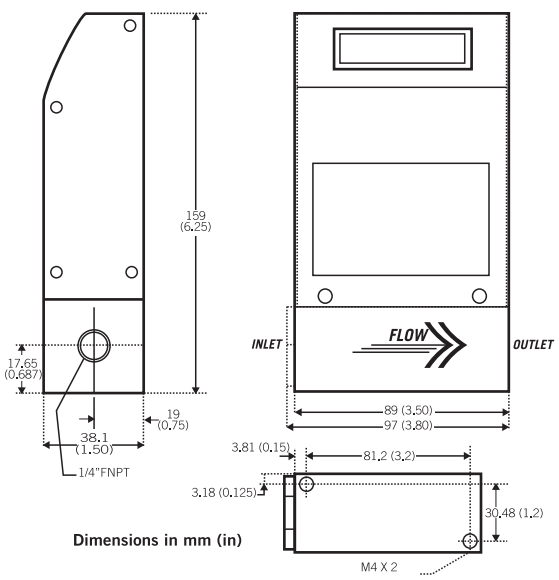

***±1% Accuracy***
***Linear Output***
***Thermal Technology***
***For Using in Non Corrosive gas***
***For Flow Rates up to 100 SLM***
***Power Supply Included***

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 TLF Series comes with or without an LCD display, and all models come with linear 0-5VDC and 4-20 mA output. The TLF Series measures the mass flow rate of gases in 23 ranges from 0-10 SCCM to 0-100 SLM as shown in the range table.

## Technical Data

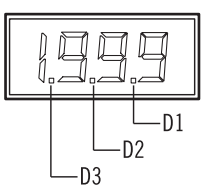
**Wetted Material:** Standard flowbody–SS316; Tapcon; option available. O-ring–Viton
**Output Signal:** 0-5 VDC Linear min. load 1000Ω or 4-20 mA Linear, loop resistance 500Ω
**Input Power:** 24 VDC standard; optional power supply 15 VDC 115 VAC, 220 VAC @500mA
**Accuracy:** ±1% FS (including linearity)
**Turn Down Ratio:** 100:1
**Repeatability:** ±0.15% FS or better
**Electric Connection:** 9 Pin Sub "D"
**Process Connection:** ¼"NPT female
**Range:** 0-10 SCCM to 0-100 SLM
**Minimum Pressure:** 40" $H_2O$
**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
**Weight:** app. 1.08 kg with power supply

## Dimensions




Dimensions in mm (in)

## 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 |

## Range Table

| Code | SCCM | Code | SLM | Code | SLM |
|---|---|---|---|---|---|
| 00 | 0-10 | 06 | 0-1 | 14 | 0~35 |
| 01 | 0-20 | 07 | 0-2 | 15 | 0~40 |
| 02 | 0-50 | 08 | 0-5 | 16 | 0~45 |
| 03 | 0-100 | 09 | 0-10 | 17 | 0-50 |
| 04 | 0-200 | 10 | 0-15 | 18 | 0~55 |
| 05 | 0~500 | 11 | 0-20 | 19 | 0-60 |
| | | 12 | 0-25 | 20 | 0-65 |
| | | 13 | 0-30 | 21 | 0-70 |
| | | | | 22 | 0-75 |
| | | | | 23 | 0-100 |
| | | | | 24 | *Custom Flow Rate |

**Note.** *Please notice that the max. flow rate is 100 SLM.

## Ordering Information

| TLF | Code | Flow Range |
|---|---|---|
| | 00~23 | Please refer to the measure range table. |
| | 24 | *Custom size (please directly fill in the requested range) |

| Code | Wetted Material |
|---|---|
| | (A) SS316 (T) Tapcon (O) Option |

| Code | Process Connection |
|---|---|
| 1 | ¼" NPT (F) |

| Code | Display |
|---|---|
| W | With display |
| 0 | Without display |

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

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

| Code | Power Supply for 24 vdc |
|---|---|
| (1) | with |
| (2) | without |

| TLF | | | | | | | |
|---|---|---|---|---|---|---|---|



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