

# MASS FLOW CONTROLLERS

## ULFC SERIES – Without LCD Display – Top Electric Connection Type

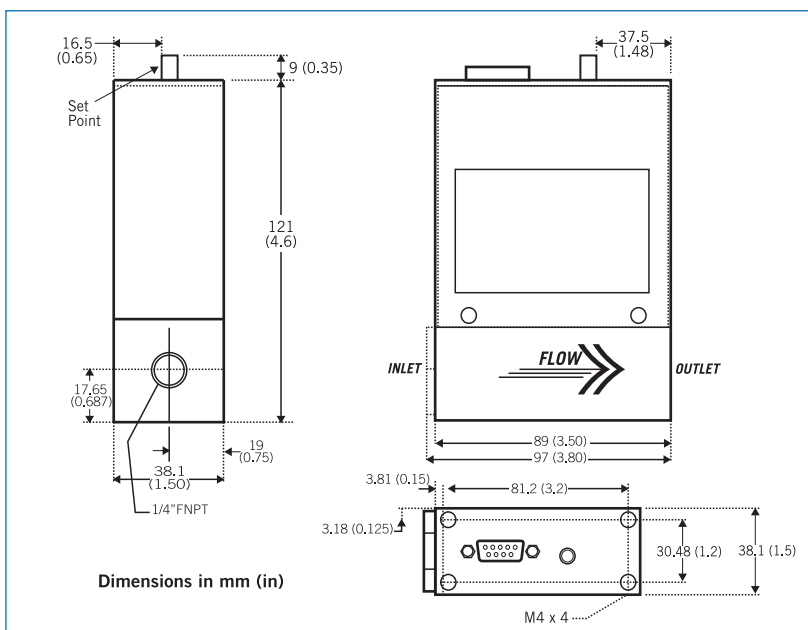
- ±1% Accuracy**
- Linear Output**
- Thermal Technology**
- For Using in Non Corrosive Gas**
- Power Supply Included**

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 ULFC Series comes without an LCD display, and all models come with linear 0-5 VDC and 4-20 mA output. The ULFC 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 ULFC 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 or FFKM available
- 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

### Dimensions



### Approvals:



### 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>)

### 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.)				

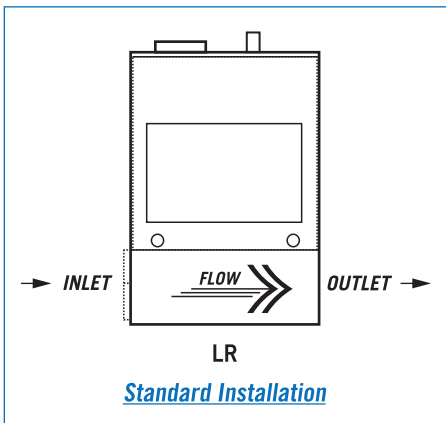
### Ordering Information

ULFC	Code	Flow Range
	00~17	Please refer to the measure range table.
	18	*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) (O) option
	<b>Code</b>	<b>Process Connection</b>
	1	¼"NPT(F)
	<b>Code</b>	<b>Display</b>
	0	Without display
	<b>Code</b>	<b>Output Signal</b>
		(1) 0-5 VDC (2) 4-20 mA
	<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) 24 VDC (2) 15VDC
	<b>Code</b>	<b>Power Supply for 24VDC</b>
		(1) With (2) Without
	<b>Code</b>	<b>D.P.</b>
		_____ kg/cm <sup>2</sup>

ULFC									
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### 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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