

# 0~2,500 SLM Mass Flow Meter / Controller

## HFM-205 MASS FLOW METER / HFC-207 MASS FLOW CONTROLLER

Medium Flow



HFM 205 / HFC 207 은 일반적인 목적에 맞는  
기체용 질량 유량계 및 제어기입니다.  
신뢰성 및 안정성을 바탕으로 변화하는 주변환경에도  
매우 안정적인 퍼포먼스를 보여줍니다.  
스테인레스강 재질로 다양한 부식성 기체에도 적합합니다.  
최대 허용 압력은 500 psig(옵션) 이며,  
아날로그 출력을 지원합니다.  
0~1,000 slm 에서 2,500 slm(N<sub>2</sub>) 까지의  
측정범위에 적합한 제품입니다.

### Features (특징)

- Range 0~1,000 slm to 2,500 slm (N<sub>2</sub> Equivalent)
- ±1% of Full-Scale Accuracy
- Input Power : ±15 VDC or +24 VDC
- Excellent Stability
- Proven Reliability
- Outstanding Zero Stability
- NIST Traceable Calibration

### Applications and Industries (응용 분야)

- Gas Blending
- Environmental Monitoring
- Thin Film Deposition
- Leak Testing
- Medical Research
- Chromatography
- R&D

### Flow Unit (유량 단위)

|  |                     |
|--|---------------------|
| 기준 STP : 0°C & 760 Torr / N <sub>2</sub> |                     |
| · SLM                                    | 1,000 ~ 2,500       |
| · SCFH                                   | 2,118.9 ~ 5,297.25  |
| · Kg/Hr                                  | 74.99 ~ 187.48      |
| · SM3/H                                  | 60 ~ 150            |
| · Mole/Hr                                | 2.676.91 ~ 6,692.27 |

### Specifications

#### HFM-205 (Meter)

#### HFC-207 (Controller)

|                            | HFM-205 (Meter)   | HFC-207 (Controller)  |
|----------------------------|---|---|
| Range                      | 0~1,000 slm to 2,500 slm (N <sub>2</sub> )                          | 0~1,000 slm to 2,500 slm (N <sub>2</sub> )                          |
| Accuracy                   | ±1% of full scale   | ±1% of full scale   |
| Repeatability              | ±0.05% of full scale  | ±0.05% of full scale  |
| Maximum Operating Pressure | 500 psig  | 500 psig  |
| Pressure Coefficient       | .0067% / psi  | .0067% / psi  |
| Leak Integrity             | < 1x10 <sup>-9</sup> sccs He  | < 1x10 <sup>-9</sup> sccs He  |
| Temperature Coefficients   | Zero : ±0.035%°C of F.S (0~60°C)<br>Span : ±0.05%°C of Rdg (0~60°C) | Zero : ±0.035%°C of F.S (0~60°C)<br>Span : ±0.05%°C of Rdg (0~60°C) |
| Standard Output            | 0~5 VDC   | 0~5 VDC   |
| Optional Outputs           | 4~20 mA   | 4~20 mA   |
| Connector (±15 VDC)        | 15 Pin D-sub  | 15 Pin D-sub  |
| Connector (+24 VDC)        | 9 Pin D-sub   | 9 Pin D-sub   |
| Fittngs                    | VCR®, VCO®, NPT, Swagelok®  | VCR®, VCO®, NPT, Swagelok®  |
| Seals                      | Kalrez, Neoprene, Buna-N  | Kalrez, Neoprene, Buna-N  |
| Power Requirements (±15 V) | ±(14~16) VDC @ ±30 mA (< 1 Watt)                                    | ±(14~16) VDC @ +60 mA / -185 mA (< 3 Watt)                          |
| Power Requirements (+24 V) | (14~32) VDC (< 1.9 Watt)  | (14~32) VDC (< 4.2 Watt)  |
| Wetted Materials           | 302 SS, 316 SS, Nickel 200, Viton®                                  | 302 SS, 316 SS, Nickel 200, Viton®, Kalrez (Valve Seat)             |
| Setpoint Input             |   | 0~5 VDC (standard) / 4~20 mA (optional)                             |
| Weight (approx.)           | 8.1 lb (3.65 kg)  | 14.9 lb (6.76 kg)   |

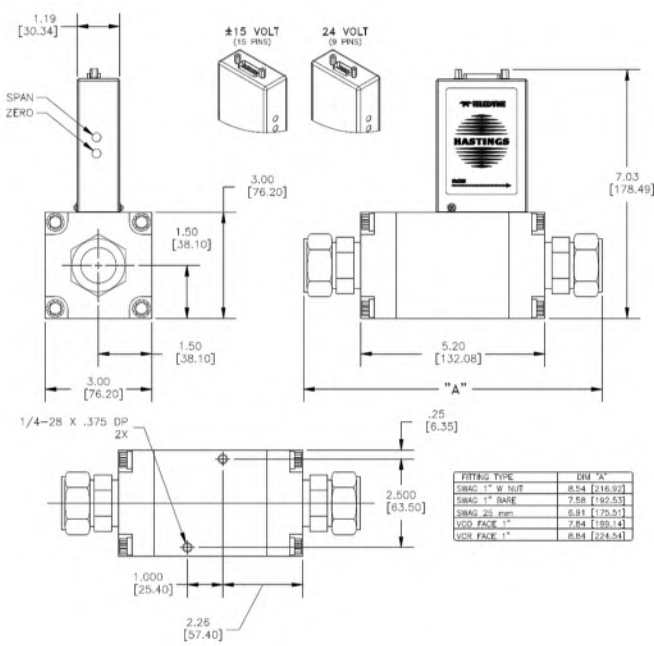
### ±15 VDC Pinout Diagram

| PINOUTS |                                |
|---------|--------------------------------|
| PIN #   |                                |
| 1       | Do Not Use                     |
| 2       | Do Not Use                     |
| 3       | Do Not Use                     |
| 4       | Do Not Use                     |
| 5       | Signal Common                  |
| 6       | Signal Output 0-5 VDC (4-20mA) |
| 7       | Case Ground                    |
| 8       | Control Valve Over-ride        |
| 9       | -15 VDC                        |
| 10      | Do Not Use                     |
| 11      | +15 VDC                        |
| 12      | Valve Return                   |
| 13      | External Input                 |
| 14      | Set Point 0-5 VDC (4-20mA)     |
| 15      | Do Not Use                     |

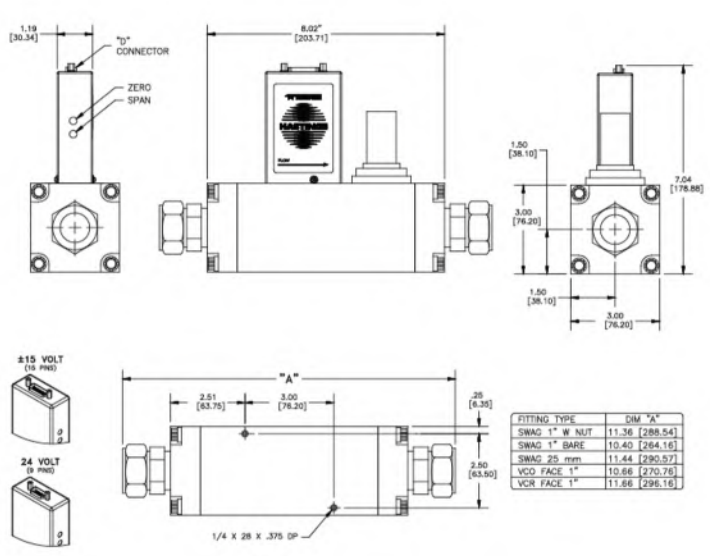
### +24 VDC Pinout Diagram

| PINOUTS |                             |
|---------|-----------------------------|
| PIN #   |                             |
| 1       | +5VDC Ref/Ext In            |
| 2       | Signal Output (0-5V/4-20mA) |
| 3       | Set Point In (0-5V/4-20mA)  |
| 4       | Power Common                |
| 5       | Valve Voltage               |
| 6       | Control Over-Ride           |
| 7       | Power Input (15-30VDC)      |
| 8       | Signal Common               |
| 9       | Case Ground                 |

### HFM-205 Outline Drawings



### HFC-207 Outline Drawings



### Selection chart

