

1,000~2,500 SLM Mass Flow Meter / Controller

HFM-305 MASS FLOW METER / HFC-307 MASS FLOW CONTROLLER

Medium Flow



HFM 305 / HFC 307 은 Full Metal Body 의
기체용 질량 유량계 및 제어기 입니다.
최대 허용 압력은 500 psig 이며,
아날로그 출력을 지원합니다.
낮은 압력 강하가 발생하도록 디자인되어 있습니다.
1,000 slm 에서 2,500 slm(N₂) 까지의
측정범위에 적합한 제품입니다.
±(1.00% of full scale) 정확도

Features (특징)

- Range 1,000 to 2,500 slm (Air Equivalent)
- Higher Flows Available
- ±1.0% of Full-Scale Accuracy
- Settings Times : HFM-305 ≤ 0.4 sec
HFC-307 ≤ 2.0 sec
- Operating Pressures to 500 psi or higher
- NIST Traceable Calibration

Applications and Industries (응용 분야)

- Gas Blending
- Research
- R&D and Process Flows
- Pollution Monitoring

Flow Unit (유량 단위)

기준 STP : 0℃ & 760 Torr / N₂

·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-305 (Meter)

HFC-307 (Controller)

	HFM-305 (Meter)	HFC-307 (Controller)
Range	1,000 slm to 2,500 slm (Air)	1,000 slm to 2,500 slm (Air)
Accuracy	±1.00% of full scale	±1.00% of full scale
Repeatability	±0.07% of full scale	±0.07% of full scale
Maximum Operating Pressure	500 psig	500 psig
Pressure Coefficient	0.015% / psi (N ₂)(0~500 psig)	0.015% / psi (N ₂)(0~500 psig)
Leak Integrity	< 1x10 ⁻⁹ sccs He	< 1x10 ⁻⁹ sccs He
Temperature Coefficients	Zero : < 0.079%/℃ of F.S (0~60℃) Span : <0.092%/℃ of Rdg (15~60℃)	Zero : < 0.079%/℃ of F.S (0~60℃) Span : <0.092%/℃ of Rdg (15~60℃)
Standard Output	0~5 VDC	0~5 VDC
Optional Outputs	4~20 mA	4~20 mA
Connector	15 Pin D-sub	15 Pin D-sub
Attitude Sensitivity of Zero	< 0.2% of F.S. (N ₂ @ 19.7 psia)	< 0.2% of F.S. (N ₂ @ 19.7 psia)
Attitude Sensitivity of Span	< 0.06% of reading (N ₂ @ 19.7 psia)	< 0.06% of reading (N ₂ @ 19.7 psia)
Settling Time	≤0.4 sec (0% to 100% F.S.)	≤2.0 sec (10% to 100% F.S.)
Power Requirements	±15 VDC @ ±55 mA	±15 VDC @ ±150 mA
Wetted Materials	316 SS, Nickel 200, 302 SS	316 SS, Nickel 200, 302 SS, Viton®, Kalrez® (Valve seat)
Setpoint Input		0~5 VDC (standard) / 4~20 mA (optional)
Weight (approx.)	8.2 lb (3.72 kg)	15.3 lb (6.94 kg)

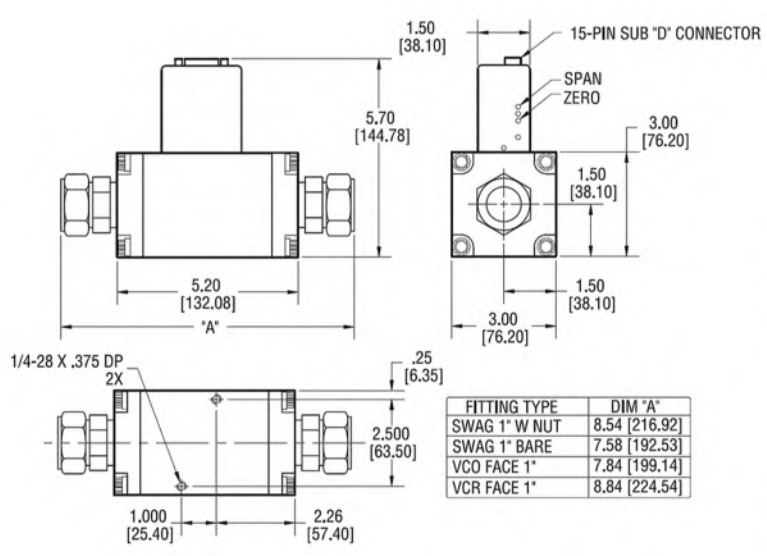
U Pinout

Pin #	Description
1	Signal Common
2	Do not use
3	Do not use
4	+15 VDC
5	
6	Output 0-5 VDC (4-20mA)
7	Signal Common
8	Case Ground
9	Valve Override
10	
11	-15 VDC
12	External Input
13	Signal Common
14	Signal Common
15	Set Point 0-5 VDC (4-20mA)

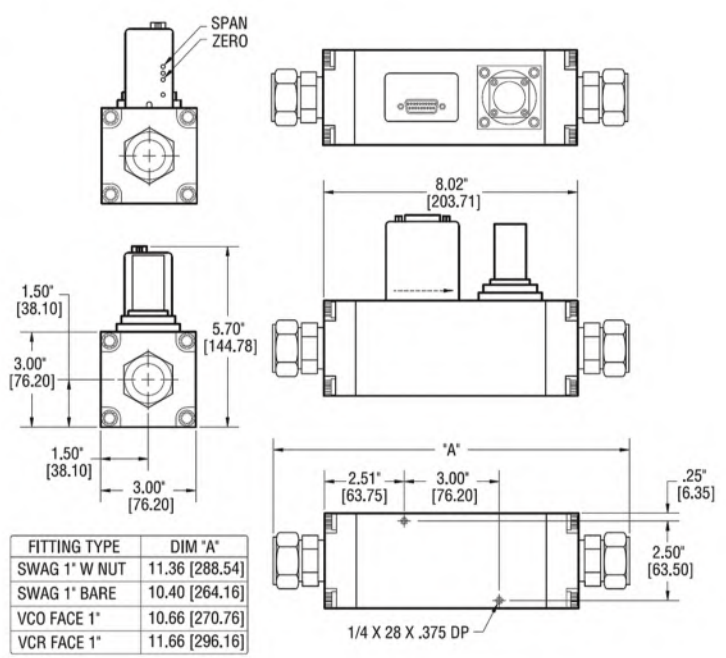
H Pinout

Pin #	Description
1	Do not use
2	Do not use
3	Do not use
4	Do not use
5	Signal Common
6	Output 0-5 VDC (4-20mA)
7	Case Ground
8	Valve Override
9	-15 VDC
10	Do not use
11	+15 VDC
12	Signal Common
13	External Input
14	Set Point 0-5 VDC (4-20mA)
15	Do not use

HFM-305 Outline Drawings



HFC-307 Outline Drawings



HFM-305 Selection chart

Circuit Board		Seals	
01	Pinout H (Standard)	01	Viton (Standard)
02	Pinout U	02	Kalrez®
03	Pinout M	03	Neoprene
		04	Buna N
Output		Pressure	
01	0-5 Volts (Standard)	01	500 psi (Standard)
02	4-20mA		
Fittings		Calibration Type	
01	1" VCR®	01	NIST 5 Point (Standard)
02	1" Swagelok (Standard)	02	NIST 10 Point
03	1" VCO®	03	NIST 20 Point
		04	Curve

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		04	Buna N
Output		Pressure	
01	0-5 Volts (Standard)	01	500 psi (Standard)
02	4-20mA		
03	I/O 4-20mA		
Fittings		Calibration Type	
01	1" VCR®	01	NIST 5 Point (Standard)
02	1" Swagelok (Standard)	02	NIST 10 Point
03	1" VCO®	03	NIST 20 Point
		04	Curve

Model No.	Circuit Board	Output	Fittings	Seals	Pressure	Calibration Type
HFM-305	01	01	02	01	01	01

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HFC-307	01	01	02	01	01	01