

유량계 (Turbine and Gear)

Turbine Flowmeters (유량계) FMT Series



특징

- 다양한 공정에 적합
- 액체에 대해 0.001 GPM, 가스에 대해 0.001 ACFM의 매우 적은 저속 유량도 측정 가능
- 높은 출력 및 마그네틱 픽오프로 출력하므로 유체 저항의 영향을 작게 받음
- Modulated carrier 픽오프로 출력하므로 유체 저항의 영향을 받지 않음
- 특수한 목적으로 사용되는 베어링
- NIST 따른 교정

Specifications

Accuracy	Liquid: ±0.05% Gas: ±0.25%
Calibration Accuracy	Liquid: ±0.1% of reading Gas: ±0.2% of reading
Repeatability	Maximum non-linearity is 5% to 50% depending upon range and viscosity of Metered liquid or density of the metered gas
Linearity	IMPORTANT: Accuracy of primary flow calibration standard is directly traceable to NIST
Pressure Drop	Liquid: Maximum pressure is 10 psid in normal 10:1 flow rate range with water at 70°F Gas: Maximum pressure drop is 12 inches of water in normal 10:1 flow rate range with air at S.T.P.
End Connections	<ul style="list-style-type: none"> • 3/4-16 UNF-3B per MS33649-08 • 1/2-14 FNPT • ANSI Flange • Others available upon request
Electrical Connections	MS3102 A-10SL-4P (2 pin connector) - For LD & CF Pickoff MS3102 A-10SL-3P (3 pin connector) - For LDA & CFA Pickoff Note: Mating connector MS3106A-10SL-4S (for LD & CF Pickoff) or MS3106A-10SL-3S (for LDA & CFA Pickoff) supplied. Explosion proof with 2 wire pigtailed and 1/2"NPT connection terminates inside a conduit.
Electrical Output	30mV P-P at minimum linear rate
Magnetic Pickoff	0~5VDC or 0~10VDC pulse or open collector.
Modulated Carrier Pickoff (with pre-amplifier)	Note: The unit is powered by a user supplied 8~30VDC. An on-board regulator provides the required regulation and noise rejection.

Flow Range

Model Number Prefix	Liquid Service US Gallons/Min		Gas Service Actual Cubic Feet/Min		Orifice Size (Ref)
	Normal	Extended	Normal	Extended	
-3	0.20 - 2.00	0.10 - 2.00	0.25 - 2.00	0.15 - 2.00	0.250
-4	0.10 - 1.00	0.05 - 1.25	0.10 - 1.00	0.08 - 1.20	0.156
-5	0.07 - 0.70	0.02 - 0.80	0.07 - 0.70	0.04 - 0.80	0.084
-6	0.02 - 0.12	0.005 - 0.120	0.02 - 0.12	0.01 - 0.12	0.047
-7	Not Available	0.001 - 0.070	Not available	0.005 - 0.070	0.032



- VR(Variable reluctance)형 또는 유도전류형
- 2핀 커넥터(mate : MS3106-10SL-4P)
- 온도 범위 -270°C ~ 232°C
- 고충격 및 진동에도 견디도록 설계(impact: 25G's min.; vibration: 2G's at 2000Hz min.)



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- 2핀 커넥터(mate : MS3106-10SL-4P)
- 온도 범위 -54°F ~ 364°F (-65°C ~ 175°C)
- CSA (with NRTL/C) 및 CENELEC의 본질안전(intrinsically safe) 인증
- Class I, Zone 0, IIC 및 Ex ia IIC T6 위험지역에서도 사용



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- 2핀 커넥터(mate : MS3106-10SL-4P)
- 온도 범위 -450°F ~ 850°F (-270°C ~ 458°C)
- 충격 및 진동에도 견디도록 설계 (impact: 25 G's min.; vibration: 2 G's at 2000 Hz min.)



- 2핀 커넥터(mate : MS3106-10SL-4P)
- 온도 범위 -100°F ~ 400°F (-74°C ~ 204°C)
- 고충격 및 진동에도 견디도록 설계 (impact: 25 G's min.; vibration: 2 G's at 2000 Hz min.)



Type	• Variable reluctance or RF type
Input Power:	• 8 to 30VDC, 10mA max. @ no load
Pulse Output Options:	Choices of: <ul style="list-style-type: none"> • Open collector; maximum OFF voltage 30VDC Maximum ON current 0.40 amps • TTL/CMOS; fanout of 5 TTL/CMOS loads • 0 to 10VDC square wave (requires 15 to 30VDC input power)
Physical Features:	• Operating temperature: 40°F to 185°F (-40°C to 85°C)
Approvals:	CE complaint to EMC Directive 89/336/EEC for use in residential, commercial, light industrial and heavy industrial environments.



Type:	• Variable reluctance or RF type
Input Power:	• 13 to 28VDC, 35mA max. @ 24VDC (Class I, Zone 0, IIC models) • 7.5 to 28VDC, 10mA @ ≤ 10VDC (Class I, Zone 0 IIA models)
Pulse Output:	• TTL/CMOS; fanout of 5 TTL/CMOS loads • Open collector; maximum OFF voltage 30VDC Maximum ON current 0.40 amps
Physical Features:	• Operating temperature: -40°F to 185°F (-40°C to 85°C)
Approvals:	• Intrinsic Safety to CSA (with NRTL/C) and CENELEC • CE compliant to EMC Directive 89/336/EEC for use residential, commercial, light industrial and heavy industrial environments