

a:etris

Company of the Leister Group

Mass Flow Meters and Controllers

미세 정밀 유량계 & 정밀 제어기



Mass Flow Meter and Controllers

Meters



MFM 2020
MFM 2021



MFM 2100 Series

Controllers

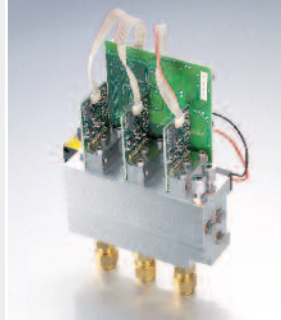


MFC 2022




MFC 2100 Series

Custom Systems

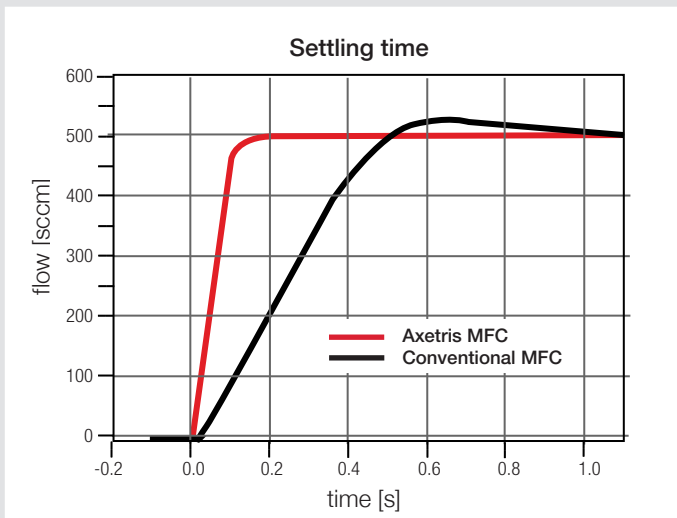


MFY 20000 Series



MFY 21000 Series

이 내용은 일반적인 제품으로 표시기재 되어 있습니다.
실제 기능, 구성 및 사용자 지정 제작 가능 여부에 대해서는 BnB Opto & Axetris에 문의하시기 바랍니다.



Axetris Mass Flow Controller는 기존 제품들에 비해서 훨씬 빠른 응답 시간과 우수한 제어 정확도가 있습니다.

Benefits

- MEMS based technology
- Compact size
- High accuracy
- Low flow capability
- High turn down ratio
- Short reaction time
- Multi-gas / Multi-range
- Excellent long term stability

Applications

- Analytical instruments
- Gas chromatography
- Mass Spectrometry
- Leakage detection
- Single and multiple gas metering and control
- Calibration and quality control
- Thin film process control

Specifications

Specifications		Standard ¹⁾	
Gas	Flow range	Number of ranges	20, 50, 250, 3000 sccm (N ₂ equivalent) up to 8
	Gas	Non corrosive Number of gases	e.g. N ₂ , O ₂ , Air, CO ₂ , Ar, He, H ₂ up to 8
Calibration conditions	Standard cubic centimeter per minute	sccm	Reference conditions: t = 0°C, P = 1013 mbar absolute As an option user defined standard conditions (uccm) are available on request
Performance	Accuracy ²⁾	N ₂ , 25°C, 1 bar:	≤ 0.2 % F.S. for 0...10% F.S. ≤ 1 % O.R. for 10...100% F.S.
		N ₂ , 0...50°C, 1 bar:	≤ 0.5 % F.S. for 0...10% F.S. ≤ 2 % O.R. for 10...100% F.S.
	Pressure coefficient		± 0.2 % O.R. / bar N ₂
	Long term stability		± 0.25 % F.S. / year
	Response time	Sensor	4 ms
	Settling time	Controller	150 ms
Operating Conditions	Temperature	Operating	0...50°C
	Humidity	Non condensing	5...95 % R.H.
	Pressure range	Operating Burst Pressure	0...10 bar ³⁾ 30 bar
	Gas compatibility		Non aggressive gases
Electronic interface	Digital interface	Protocol Input Output Connectors	RS232 (TTL level), RS232, RS485 Set point, gas and range selection, valve override Flow, PID control, temperature D-SUB9, M12
	Analog input	Set Point Valve Override	0...5 V or 4...20 mA Force valve to open / close / normal position
	Analog output	Flow PID	0...5 V or 4...20 mA 0...5 V
Fluid	Interface	Material Connectors	Aluminium or stainless steel Down port / Side port
	Leak tightness	Meter	1x10 ⁻⁹ mbar l/s He
Power	Voltage	MFM 202x MFC 2022 MFM 21x0, MFC 21x2	12 V ± 10 % 24 V ± 10 % 24 V ± 10 %
Size	L x H x B	MFM 2020, MFM 2021	34 x 48.5 x 16.4 mm
		MFC 2022	50.5 x 48.5 x 25 mm
		MFM 21x0, MFC 21x2	59.5 x 96.6 x 28.8 mm, Side port without fittings and electr. connection 79.5 x 84.6 x 28.8 mm, Down port without electrical connection
Weight		MFM 2020, MFM 2021	34 g
		MFC 2022	106 g
		MFM 21x0	274 g
		MFC 21x2	336 g, Side port without fittings, 3000 sccm F.S.

이 문서에 포함 된 Data 및 기술사양은 예고 없이 변경 될 수 있습니다.

- 1) 기타 Option 및 변경은 Axetris & BnB Opto에 문의하십시오.
- 2) 250 SCCM ~ 3000 SCCM 의 유량 범위 입니다. (다른Version은 문의 해주세요.)
- 3) MFC의 최대 작동 압력은 Valve의 종류에 따라 달라집니다.

F.S.: Full Scale, O.R.: Of Reading



고객지정 주문 GAS 혼합 및 혼합 Systems

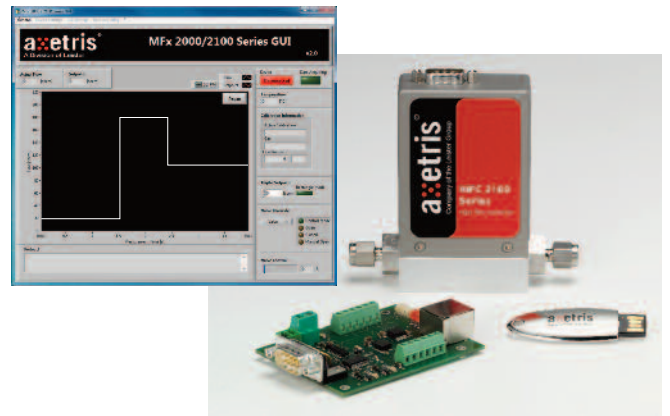
하나의 공통 Manifold에 여러 질량 유량계, 압력 Sensor 및 Controller Module을 통합하여, 정확하게 귀하의 요구를 충족 합니다. 초소형, 고객의 특정 System을 구축 할 수 있고, 통합 Manifold로 효율적인 비용과 기존의 Manifold 에 대비하고 표준 질량 유량 Controller를 사용하여 더 Compact하게 구축 할 수 있습니다.

충분한 기술과 고객지원

Axetris의 최대 강점은 충분한 기술 인력들이 다양한 장비를 사용하는 우리의 OEM고객들에게 맞추는 Design이며, 최적의 System을 설계 하는 것입니다.

Axetris는 다음과 같은 항목을 포함하는 질량 유량 제품들의 평가 Kit를 제공 합니다.

- Fluid block
- Cable MFC 2022
- RS 232 interface board
- USB serial converter
- Labview based software
- Documentation
- Power supply



Axetris Mass Flow Controller Evaluation Kit

About Axetris AG

Axetris AG, a company of the Leister group, is serving OEM customers with micro technology based (MEMS) infrared light sources, laser gas sensors, mass flow sensors and controllers and micro-optical components used in industrial, process control, environmental, medical automotive and telecom applications.

Axetris supports its customers in many industries with in-depth application know-how. Our engineering and manufacturing teams combine broad experience in simulation, design, manufacturing and metrology from microchip level to advanced electronic and

electro-optic modules. Customers benefit from excellent product value, consistent high product quality and outstanding customer support. OEMs rely on Axetris as a competent and sub-system partner for a wide range of high-quality off-the shelf products as well as customer specific solutions from concept to volume production.

Axetris is ISO 9001 certified and ISO TS 16949 compliant and operates its own 6" to 8" wafer MEMS foundry in Central Switzerland for its own products and external customers.

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Swiss Made Quality.

Axetris is an ISO 9001 certified enterprise.

Axetris 판매, Service Partner : BnB OPTO www.bnbopto.co.kr

Specifications are subject to change without prior notice.



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