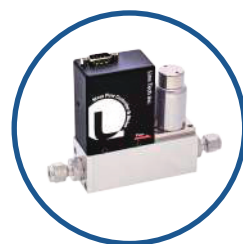




Mass Flow Solutions



MFC/ MFM at a Glance



Analogue

Analogue Mass Flow Controller Specifications

MODEL	Full Scale N2(slm)	Accuracy (%FS)	Repeatability (%)	Response Time(sec)	In/Out Signal (Vdc/mA)	Supply Power (Vdc)	Max Operating Pressure	Max Operating Temp(°C)
M3030VA	0.01 ~ 30	± 1.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
M3100VA	30 ~ 100	± 1.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
M3200VA	30 ~ 100	± 1.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
MS3150VA	30 ~ 100	± 1.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
MS3400VA	100 ~ 300	± 2.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS3500VA	300 ~ 1000	± 2.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS3600VA	1000 ~ 1500	± 2.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS3700VA	1500 ~ 2500	± 2.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS3800VA	2500 ~ 5000	± 2.0	± 0.25	<2	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50

* Please contact us directly for range above 5,000 SLPM

Analogue Mass Flow Meter Specifications

MODEL	Full Scale N2(slm)	Accuracy (%FS)	Repeatability (%)	In/Out Signal (Vdc/mA)	Supply Power (Vdc)	Max Operating Pressure	Max Operating Temp(°C)
M2030VA	0.01 ~ 30	± 1.0	± 0.25	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
M2100VA	30 ~ 100	± 1.0	± 0.25	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
M2200VA	30 ~ 100	± 1.0	± 0.25	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
MS2150VA	30 ~ 100	± 1.0	± 0.25	0~5 or 4~20	+15 ~ 24	< 90 bar	0 ~ 50
MS2400VA	100 ~ 300	± 2.0	± 0.25	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS2500VA	300 ~ 1000	± 2.0	± 0.25	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS2600VA	1000 ~ 1500	± 2.0	± 0.25	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS2700VA	1500 ~ 2500	± 2.0	± 0.25	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50
MS2800VA	2500 ~ 5000	± 2.0	± 0.25	0~5 or 4~20	+15 ~ 24	inquiry	0 ~ 50

* Please contact us directly for range above 5,000 SLPM

M3030VA

Mass Flow Controller

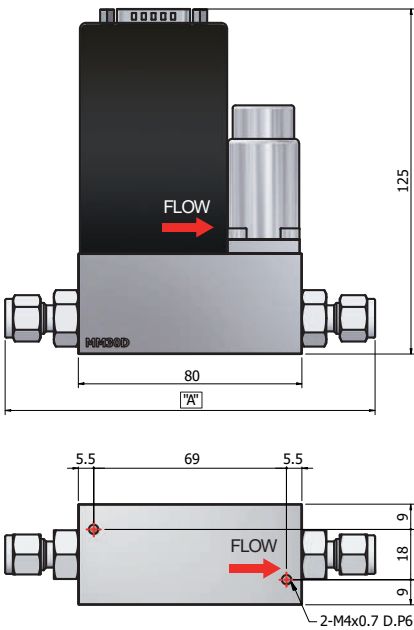
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	M3030VA
Range(N2)	0.01slpm~30slpm
Response Time	<2 sec
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/8" SW	126.7
1/4" SW	128
3/8" SW	134.3
1/4" VCR	127.8



M2030VA

Mass Flow Meter

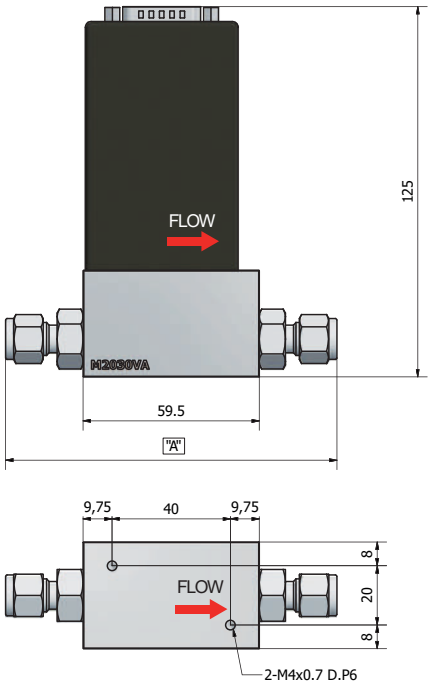
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	M2030VA
Range(N2)	0.01slpm~30slpm
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	“A” Dimension(mm)
1/8” SW	104.5
1/4” SW	111.9
3/8” SW	115.3
1/4” VCR	107.5



M3100VA

Mass Flow Controller

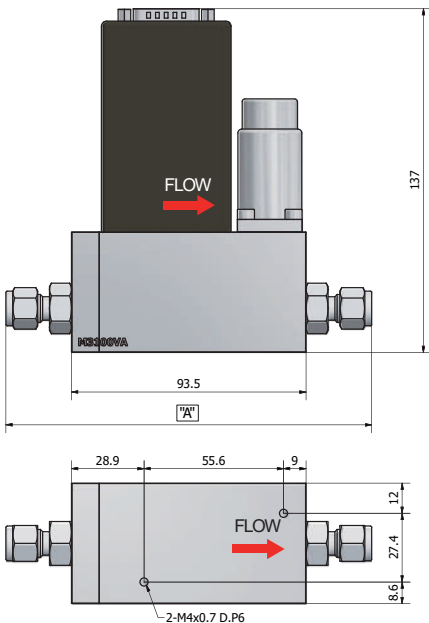
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	M3100VA
Range(N2)	30slpm~100slpm
Response Time	<2 sec
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/4" SW	145.9
3/8" SW	149.3
1/2" SW	161.5
1/4" VCR	141.5
1/2" VCR	149



M2100VA

Mass Flow Meter

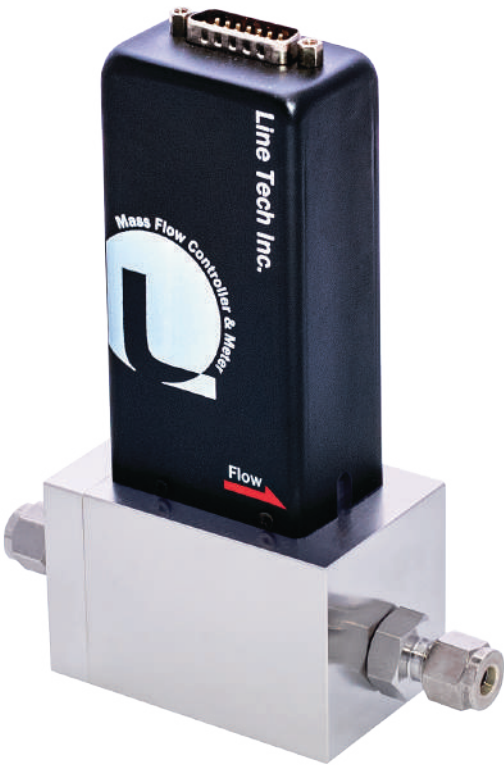
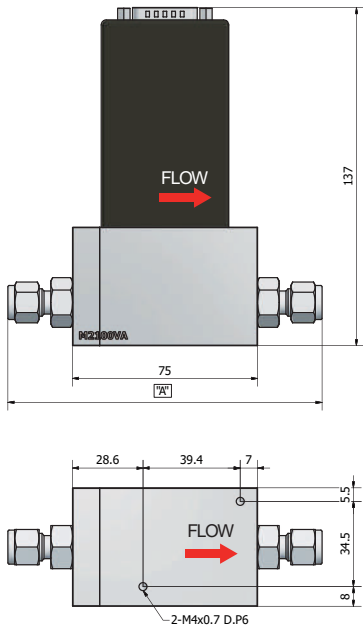
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	M2100VA
Range(N2)	30slpm~100slpm
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	“A” Dimension(mm)
1/4" SW	127.4
3/8" SW	130.8
1/2" SW	143
1/4" VCR	123
1/2" VCR	130.5



M3200VA

Mass Flow Controller

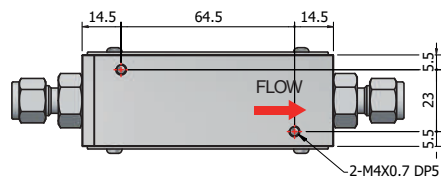
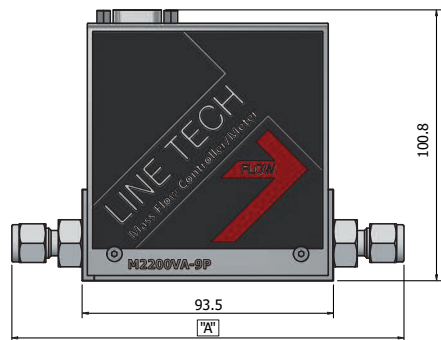
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	M3200VA
Range(N2)	30slpm~100slpm
Response Time	<2 sec
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/4"SW	145.9
3/8"SW	149.3
1/4"VCR	141.5



M2200VA

Mass Flow Meter

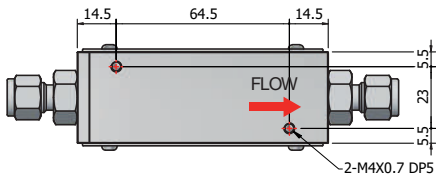
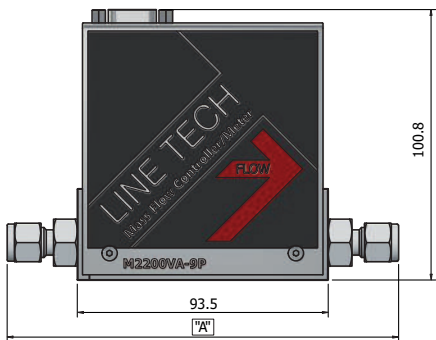
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	M2200VA
Range(N2)	30slpm~100slpm
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	“A” Dimension(mm)
1/4"SW	145.9
3/8"SW	149.3
1/4"VCR	141.5



MS3150VA

Mass Flow Controller

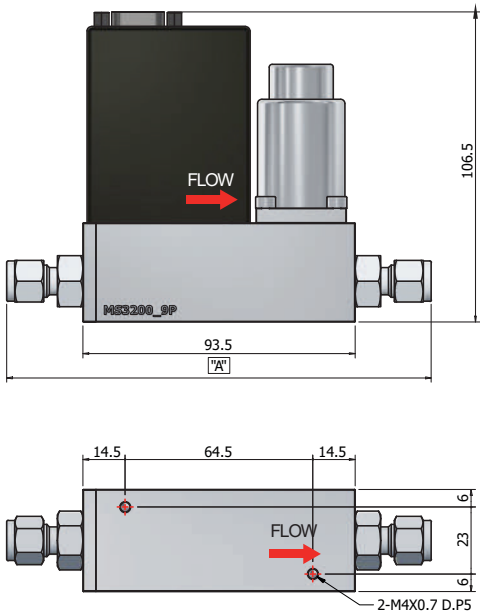
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS3150VA
Range(N2)	30slpm~100slpm
Response Time	<2 sec
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/4"SW	145.9
3/8"SW	149.3
1/4"VCR	141.5



MS2150VA

Specifications

Model	MS2150VA
Range(N2)	30slpm~100slpm
Accuracy	±1% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	<90 bar
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/4"SW	145.9
3/8"SW	149.3
1/4"VCR	141.5

Mass Flow Meter

Features

Accurate at Low Flow

Fast Response

Wide Pressure Range Compatibility

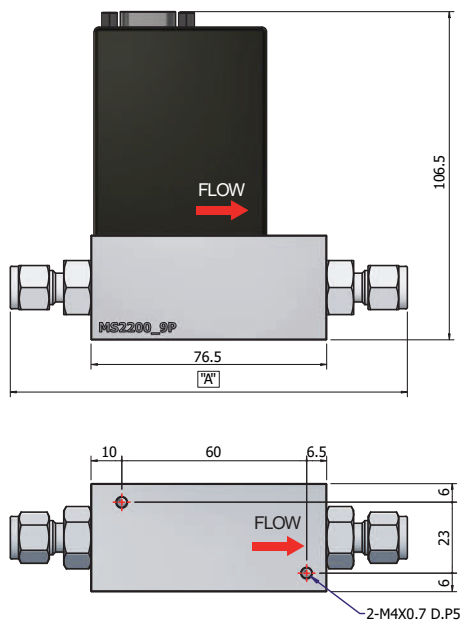
Excellent Linearity

Long-Term Stability

High Corrosion Resistance

Highly Stable Removable Sensor

Compact Connection



MS3400VA

Mass Flow Controller

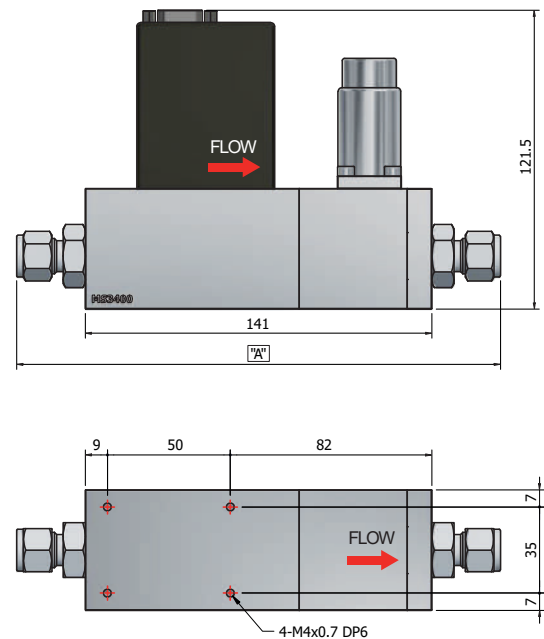
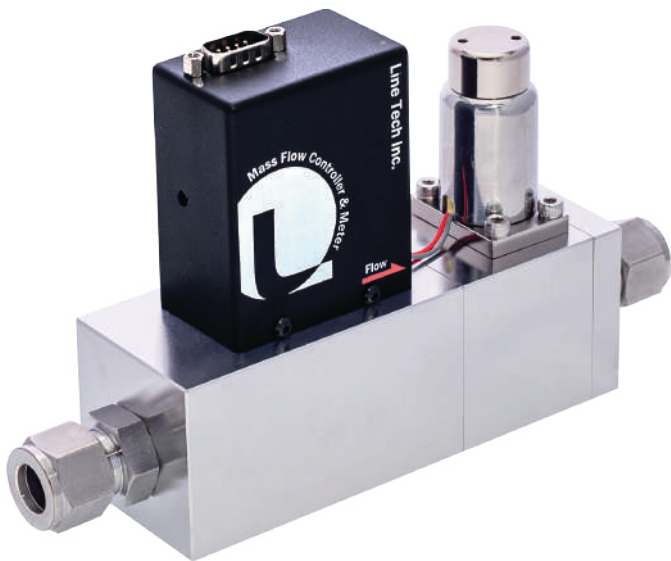
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS3400VA
Range(N2)	100slpm~300slpm
Response Time	<2 sec
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
3/8"SW	196.7
1/2"SW	209
3/4"SW	210.6
1/2"VCR	196.5



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS2400VA

Mass Flow Meter

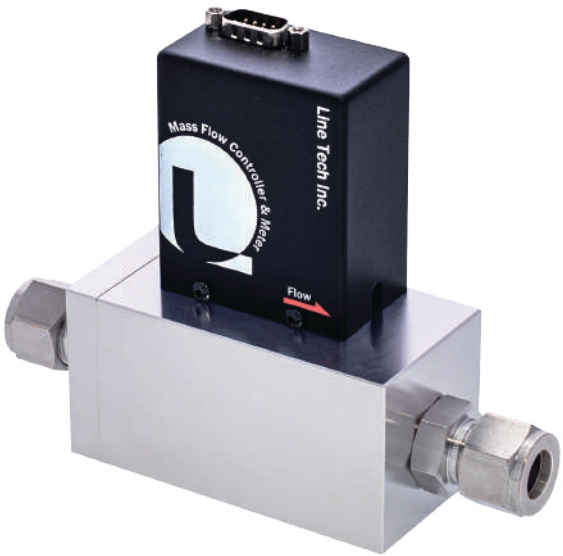
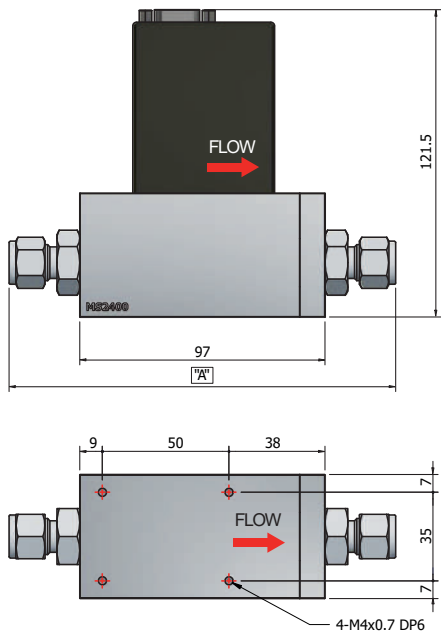
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS2400VA
Range(N2)	100slpm~300slpm
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
3/8"SW	152.8
1/2"SW	165
3/4"SW	166.6
1/2"VCR	152.5



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS3500VA

Mass Flow Controller

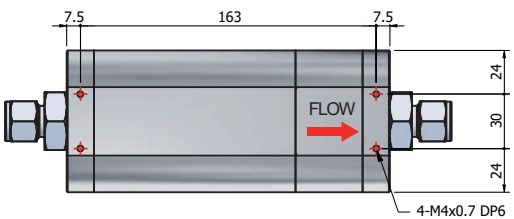
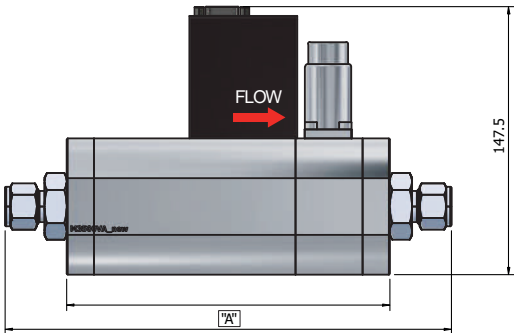
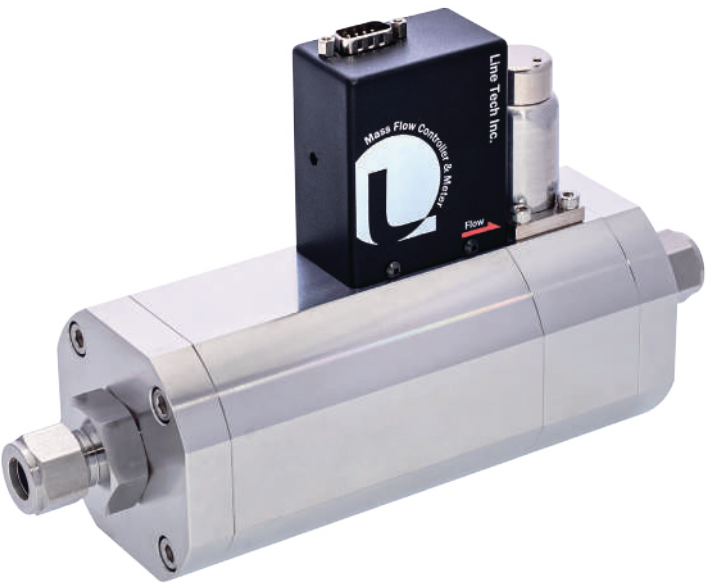
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS3500VA
Range(N2)	300slpm~1000slpm
Response Time	<2 sec
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/2" SW	246
3/4" SW	247.6
1" SW	254.6



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS2500VA

Mass Flow Meter

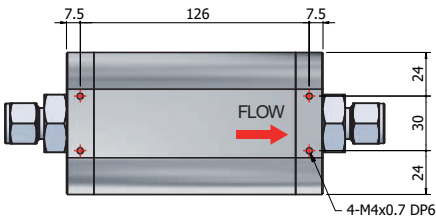
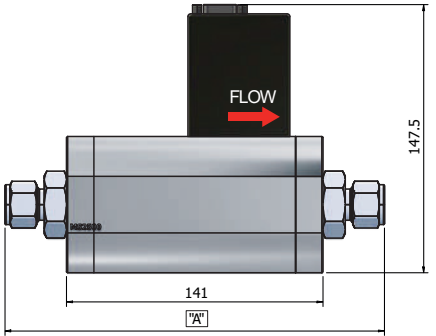
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS2500VA
Range(N2)	300slpm~1000slpm
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	“A” Dimension(mm)
1/2" SW	209
3/4" SW	210.6
1" SW	217.6



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS3600VA

Mass Flow Controller

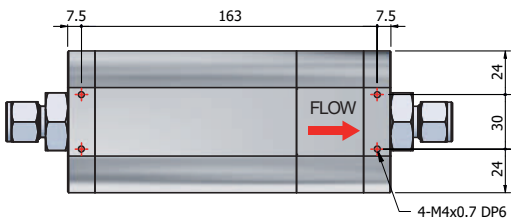
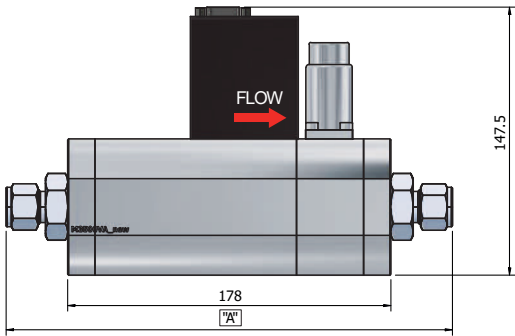
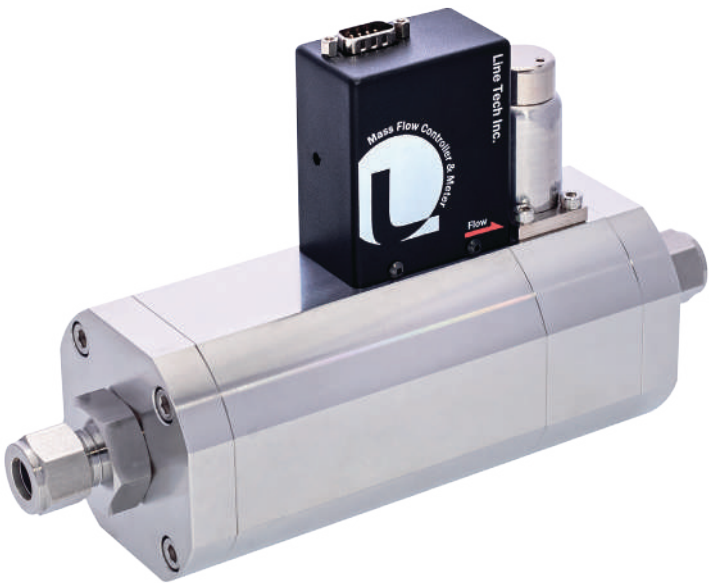
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS3600VA
Range(N2)	1000slpm~1500slpm
Response Time	<2 sec
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/2" SW	246
3/4" SW	247.6
1" SW	254.6



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS2600VA

Mass Flow Meter

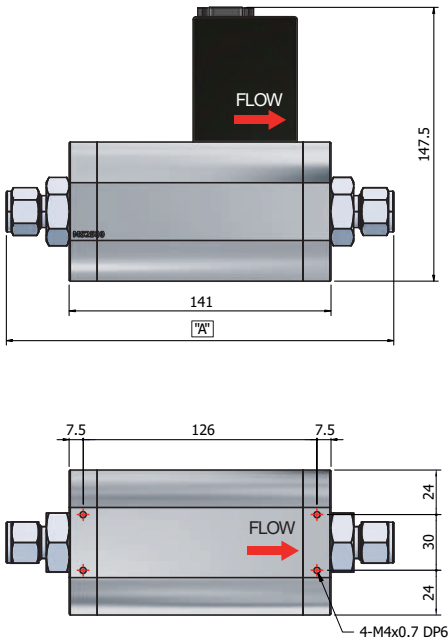
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS2600VA
Range(N2)	1000slpm~1500slpm
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	“A” Dimension(mm)
1/2" SW	209
3/4" SW	210.6
1" SW	217.6



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS3700VA

Mass Flow Controller

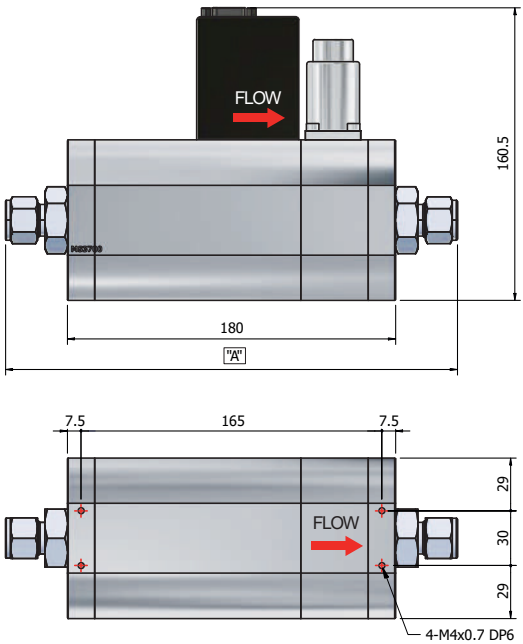
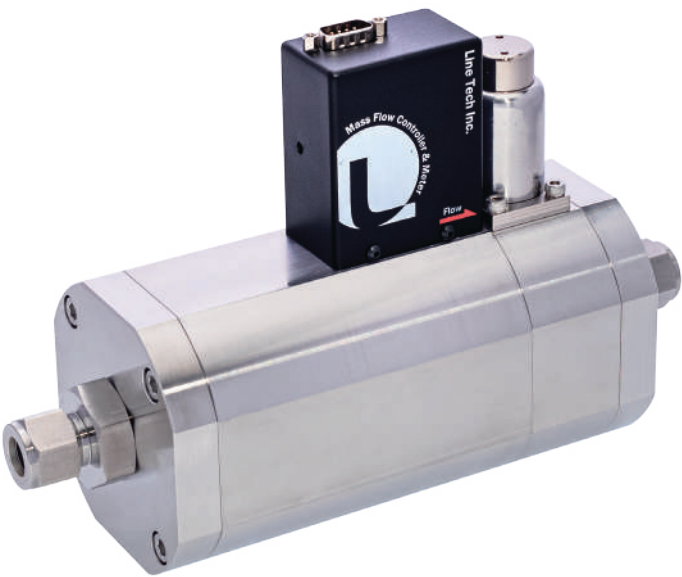
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS3700VA
Range(N2)	1500slpm~2500slpm
Response Time	<2 sec
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/2" SW	248
3/4" SW	249.6
1" SW	256.6



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS2700VA

Mass Flow Meter

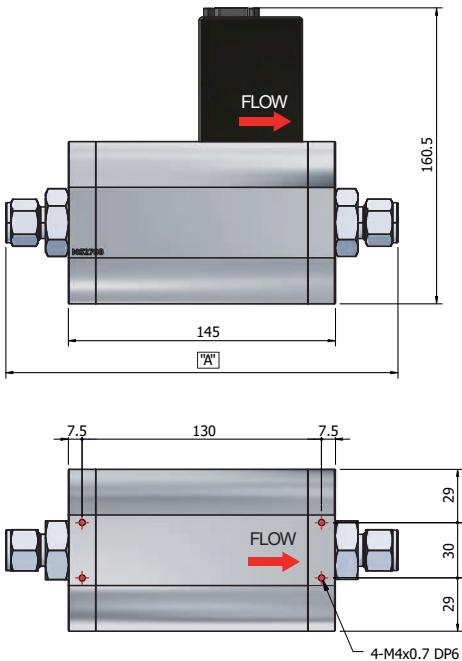
Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

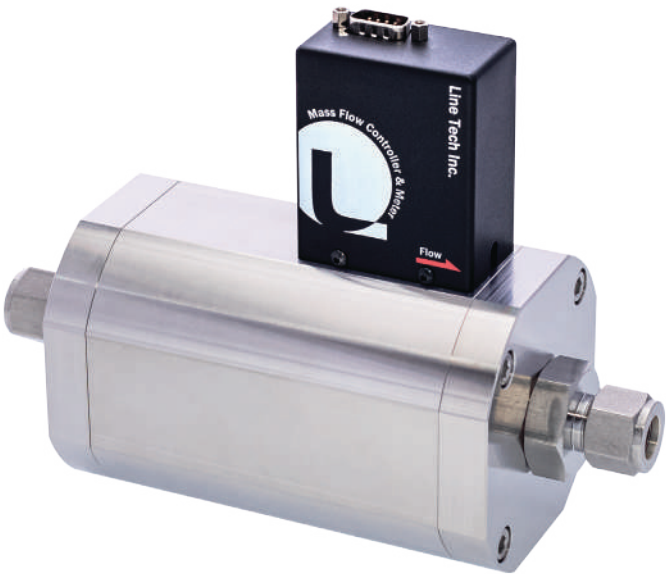
Specifications

Model	MS2700VA
Range(N2)	1500slpm~2500slpm
Response Time	<2 sec
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	“A” Dimension(mm)
1/2" SW	213
3/4" SW	214.6
1" SW	221.6



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent



MS3800VA

Mass Flow Controller

Features

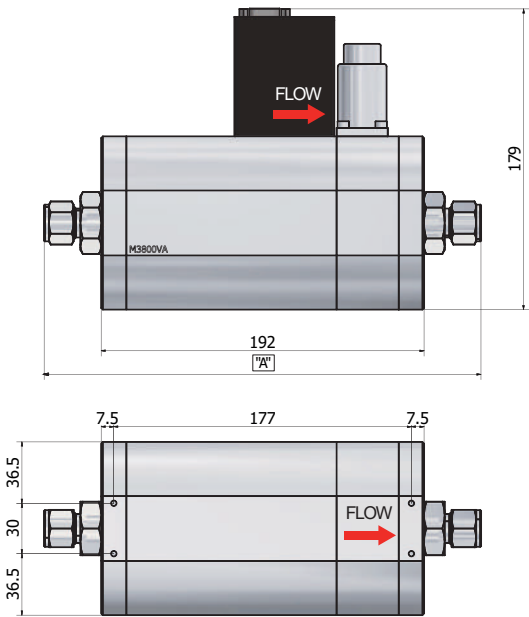
- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection

Specifications

Model	MS3800VA
Range(N2)	2500slpm~5000slpm
Response Time	<2 sec
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/2" SW	257
3/4" SW	259.8
1" SW	267.8

* Please contact us directly for range above 5,000 SLPM



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

MS2800VA

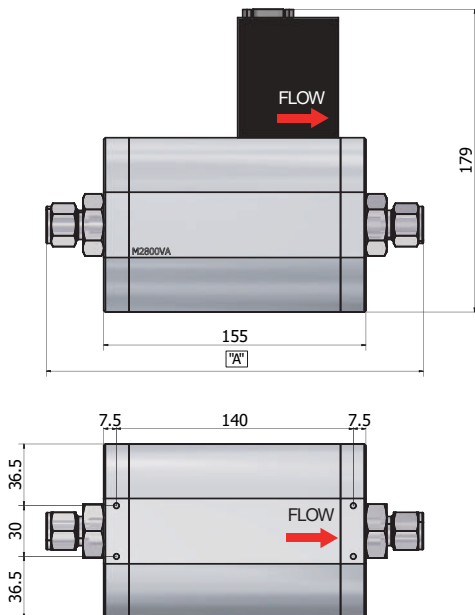
Mass Flow Meter

Specifications

Model	MS2800VA
Range(N2)	2500slpm~5000slpm
Response Time	<2 sec
Accuracy	±2% of FS
Repeatability	±0.25%
In/Out Signal	0~5Vdc or 4~20mA
Supply Power	+15 ~ +24Vdc, 350mA
Max Operating Pressure	inquiry
Max Operating Temp	0~50°C
Leak Rate	1×10 ⁻⁹ atm. cc/sec
Control Range	3~100%

Connection	"A" Dimension(mm)
1/2" SW	215
3/4" SW	217
1" SW	225.8

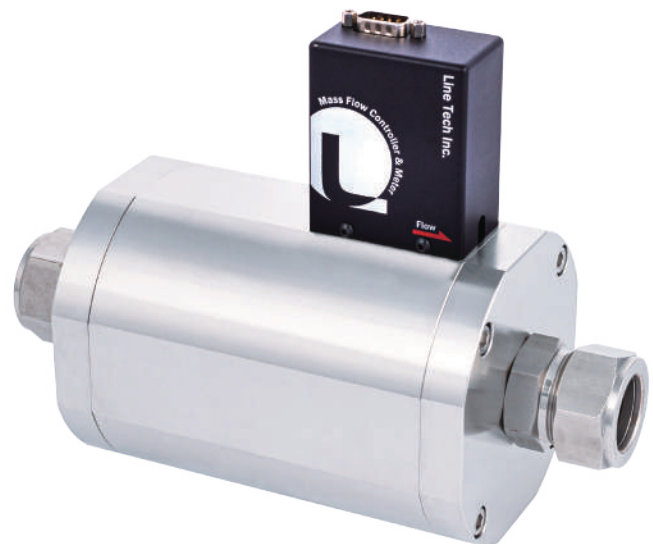
* Please contact us directly for range above 5,000 SLPM



Greater than 40 psig (2.76 bar) inlet pressure required for flows greater than 100 slpm N2 equivalent

Features

- Accurate at Low Flow
- Fast Response
- Wide Pressure Range Compatibility
- Excellent Linearity
- Long-Term Stability
- High Corrosion Resistance
- Highly Stable Removable Sensor
- Compact Connection



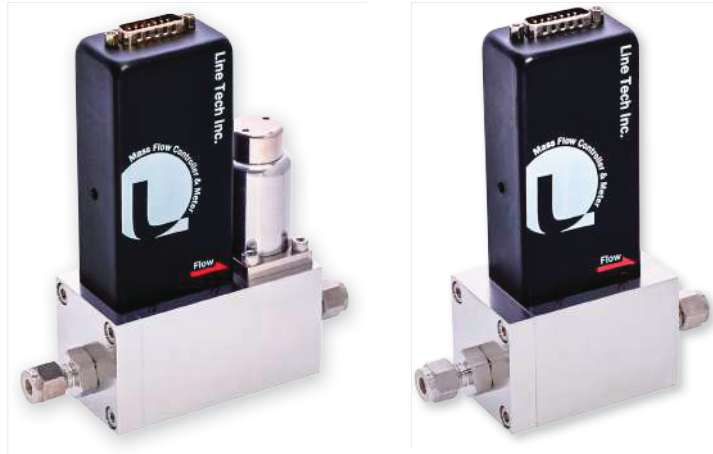
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Analogue Product Features



The M-Series was the first line of MFC / MFM developed at Line Tech and has enjoyed a long track record of success and reliability. We have decided to evolve this series further and implement smaller PCBs, thus giving birth to the new MS-Series. MS-Series is smaller than M-Series, but does not sacrifice any of its performance. It is compatible with a wide range of pressure / temperature conditions and prides itself on its fast response and high repeatability. Our M and MS series are guaranteed to provide the reliable, accurate mass flow measurement and control that you need for your ideal gas flow solution.

- **Wide Range** : Flow rate range from 0.01 to 5,000 SLPM* available for all your application needs
- **Accurate** : Highly accurate measurements with ± 1 % FS error rate with consistency
- **Dependable** : Reliable performance with repeatability at ± 0.25 % for long-term application
- **Responsive** : Selectable response time between 1 to 2 seconds for your ideal application
- **Flexible** : Compatible with wide range of temperature (0 ~ 50 Celcius) and pressure (< 90 bar) conditions
- **Durable** : High corrosion resistance and sturdy build for long-term handling and usage

Note

* Please contact us directly for range above 5,000 SLPM