Membrane Solutions

Stainless Steal Gas Filter

Product Series

MEMBRANE SOLUTIONS

Stainless Steel **Mini** Series Gas Filter

Product Discription

The stainless steel **Mini series** is designed for ultra-high purity gases, with a double-layer PTFE membrane and a filtration accuracy of 0.003 μ m. Internally equipped with perfluorinated filter elements, it has excellent chemical compatibility and can be used for filtering gases in various semiconductor processes



Features

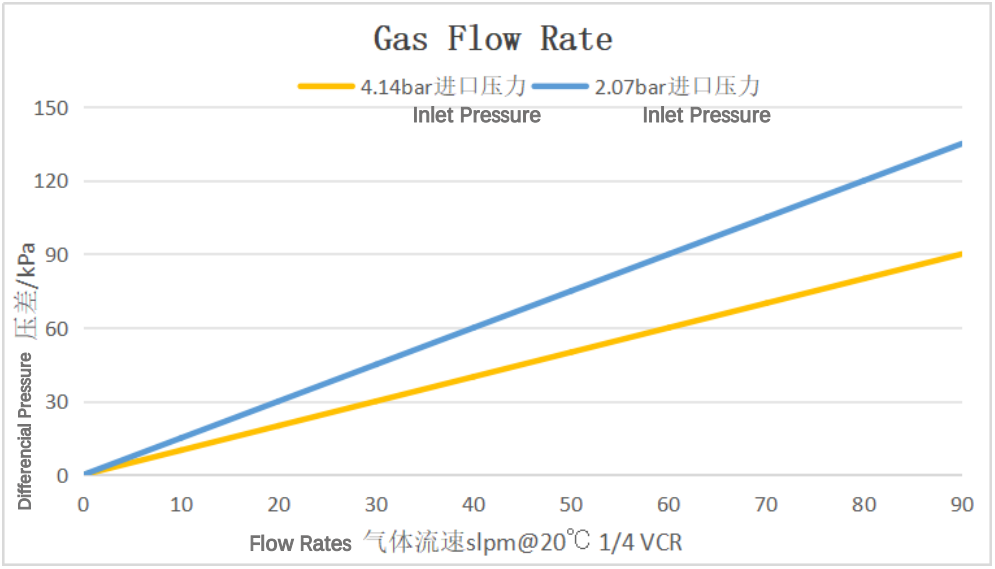
- 316L electrolytic polishing shell, perfluorinated inner core, high cleanliness, low precipitation
- 100% integrity and helium leak detection

Specification parameters

Material	Membrane	Hydrophobic PTFE
	Core	PFA
	O-ring	FFKM
	Housing	electrolytic polishing 316L/316L VAR
Internal Surface Treatment	Roughness	≤0.13μm
	surface chemistry	316：Cr Fe>1
		316VAR：Cr Fe>1.5
Removal Rating	≥0.003μm	
Particle Retention efficiency	＞99.9999999 (9LRV) @30slpm	
Recommended work flow	0-60slpm	
Adaptor	1/4 VCR, 1/4 SWG	
Helium leak testing	Design Verification	2×10^{-11}atm.cm^3/sec
	Process Verification	1×10^{-9}atm.cm^3/sec
Operating Conditions	Max. Operating Pressure	20.7MPa@121℃
	Max. Forward Operating Differancial Pressure	0.4MPa@23℃
	Max. Reverse Operating Differancial Pressure	0.07MPa@23℃
	Max. Operating Temperature	120℃
Downstream Cleanliness	Particles	＜0.03ea/L(Particles＞0.01μm)
	Volatiles	＜10ppb

Structure diagram





Ordering Information

Product	Core&Cage	Removal Rating	Outer Diameter	Adaptor				Length
				Type	Inlet	Outlet	Dimensions	
CRGI	F= PFA	3=3nm 10=10nm	I=19.05	S=SWG V=VCR	M=Male F=Female	M=Male F=Female	4=1/4 6=3/8 8=1/2	74=74 85=85 90=90 100=100

Stainless Steel Mid Series Gas Filter

Product Discription

The stainless steel **Mid series** is designed for ultra-high purity gases, with a double-layer PTFE membrane and a filtration accuracy of 0.003 μ m. Internally equipped with perfluorinated filter elements, it has excellent chemical compatibility and can be used for filtering gases in various semiconductor processes



Features

- 316L electrolytic polishing shell, perfluorinated inner core, high cleanliness, low precipitation
- 100% integrity and helium leak detection

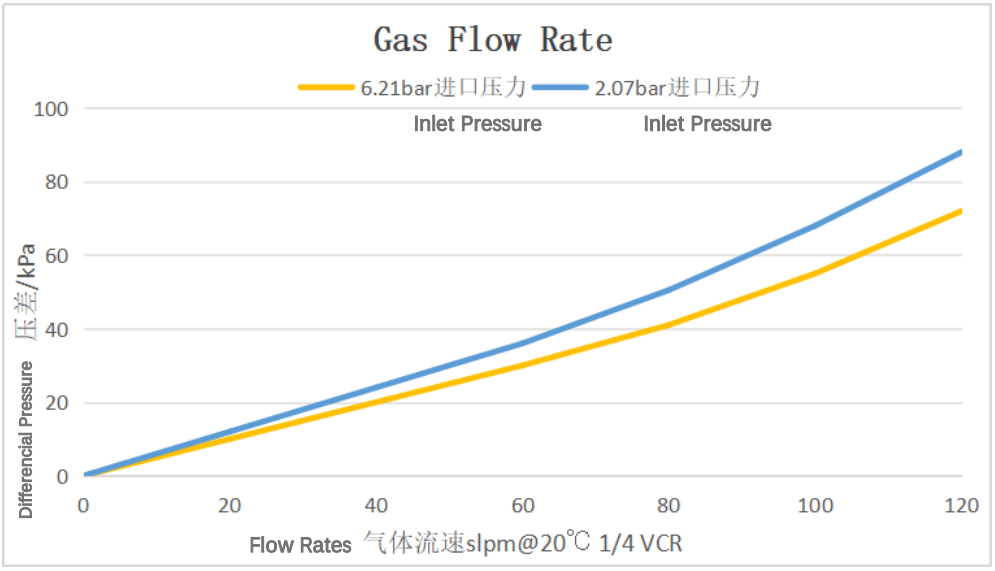
Specification parameters

Material	Membrane	Hydrophobic PTFE
	Core	PFA
	O-ring	FFKM
	Housing	eletrolytic polishing 316L/316L VAR
Internal Surface Treatment	Roughness	≤0.13μm
	Surface Chemistry	316：Cr Fe>1
		316VAR：Cr Fe>1.5
Removal Rating	≥0.003μm	
Particle Retention efficiency	＞99.9999999 (9LRV) @MPPS	
Recommended work flow	0-120slpm	
Adaptor Type	1/4, 1/2 VCR;1/4 ,3/8 SWG	
Helium leak testing	Design Verification	2×10^{-11}atm.cm^3/sec
	Process Verification	1×10^{-9}atm.cm^3/sec
Operating Conditions	Max. Operating Pressure	20.7MPa@121°C
	Max. Forward Operating Differancial Pressure	0.4MPa@23°C
	Max. Reverse Operating Differancial Pressure	0.07MPa@23°C
	Max. Operating Temperature	120°C
Downstream Cleanliness	Particles	＜0.03ea/L(Particles＞0.01μm)
	Volatiles	＜10ppb

Stainless Steel Mid Series Gas Filter

Structure diagram





Ordering Information

Product	Core&Cage	Removal Rating	Outer Diameter	Adaptor				Length
				Type	Inlet	Outlet	Dimensions	
CRGD	F= PFA	3=3nm 10=10nm	D=25.40	S=SWG V=VCR	M=Male F=Female	M=Male F=Female	4=1/4 6=3/8 8=1/2	115=115 120=120 127=127 133=133

Stainless Steel Max Series Gas Filter

Product Discription

The stainless steel **Max series** is designed for ultra-high purity and high flow gas filtration, with a flow range of 0-1000slpm and a filtration accuracy of 0.003 μ m. Internally, it adopts a perfluorinated filter element with excellent chemical compatibility, which can be used for filtering gases in all semiconductor processes.



Features

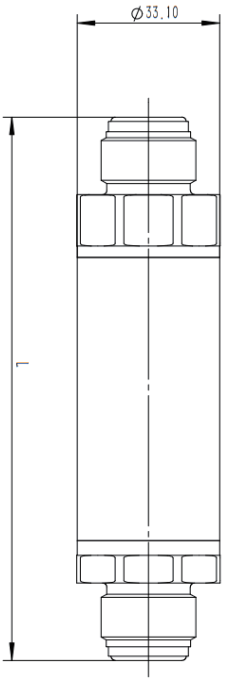
- 316L electrolytic polishing shell, perfluorinated inner core, high cleanliness, low precipitation
- 100% integrity and helium leak detection
- Large size, high flow rate;

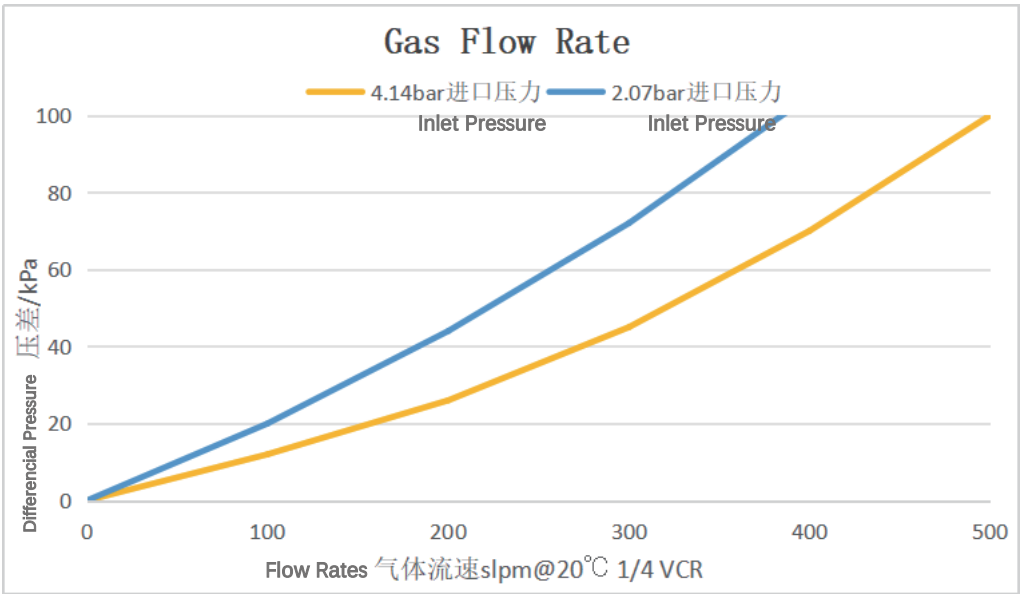
Specification parameters

Material	Membrane	Hydrophobic PTFE
	Core	PFA
	O-ring	FEP Encapsulated FKM
	Housing	electrolytic polishing 316L EP
Internal Surface Treatment	Roughness	≤0.13μm
	Surface Chemistry	Cr Fe>1
Removal Rating	≥0.003μm	
Particle Retention efficiency	>99.9999999@MPPS	
Adaptor Type	1/4，1/2 VCR 1/4，3/8，1/2 SWG	
Helium leak testing	Design Verification	2×10-11atm.cm3/sec
	Process Verification	1×10-9atm.cm3/sec
Operating Conditions	Max. Operating Pressure	7MPa@121°C
	Max. Forward Operating Differancial Pressure	0.6MPa@23°C
	Max. Reverse Operating Differancial Pressure	0.3MPa@23°C
	Max. Operating Temperature	120°C
Recommended work flow	0-1000slpm	

Stainless Steel Max Series Gas Filter

Structure diagram





Ordering Information

Product	Core/Cage	Removal Rating	Outer Diameter	Adaptor				Length
				Type	Inlet	Outlet	Dimensions	
CRGM	F= PFA	3=3nm 10=10nm	M=33	S=SWG V=VCR	M=Male F=Female	M=Male F=Female	4=1/4 6=3/8 8=1/2 12=3/4	113=113 118=118 127=127 133=133 140=140

Stainless Steel Normal Series Gas Filter

Product Discription

The stainless steel **Normal series** is designed specifically for bulk gases and provides cost-effective filtration solutions for non critical processes, with a filtration accuracy of up to 0.003 μ m. Commonly used for filtering process gases such as compressed air, nitrogen, and inert gases.



Features

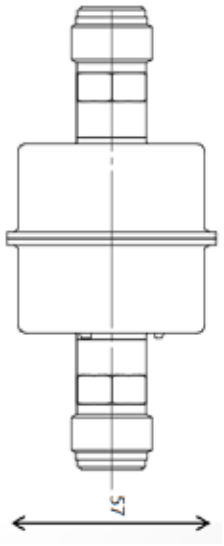
- 316L electrolytic polishing, PTFE Membrane, high chemical compatibility
- 100% integrity and helium leak detection

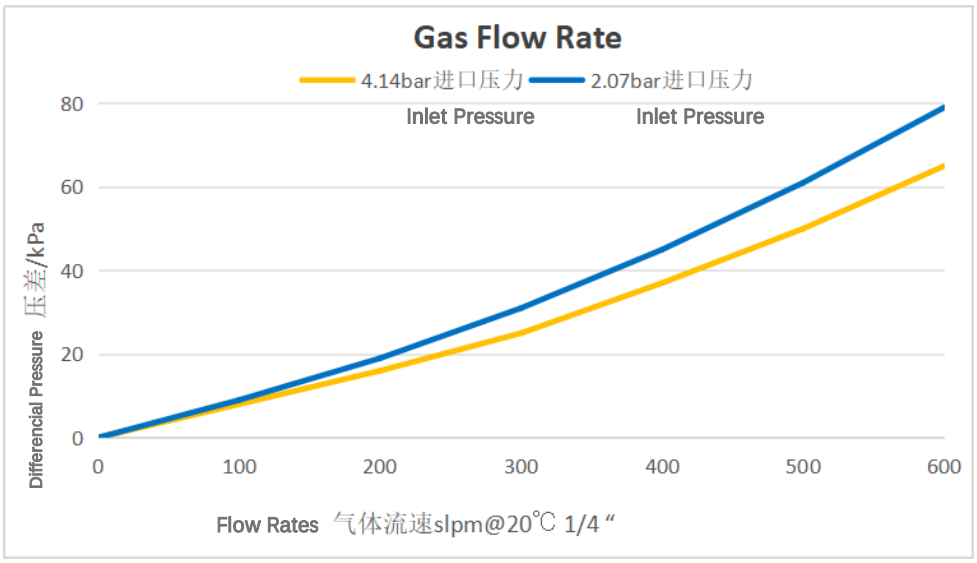
Specification parameters

Material	Membrane	Hydrophobic PTFE
	Core	PP
	O-ring	FKM
	Housing	eletrolytic polishing 316L
Internal Surface Treatment	Roughness	≤0.64μm
Removal Rating	≥0.003μm	
Filtration Area	≥460cm^2	
Recommended work flow	0-600slpm	
Adaptor	1/4、3/8、1/2 VCR;1/4、3/8、1/2 SWG;1/4、1/2 NPT	
Helium leak testing	Design Verification	2×10^{-11}atm.cm^3/sec
	Process Verification	1×10^{-9}atm.cm^3/sec
Operating Conditions	Max. Operating Pressure	5.2 MPa@80°C
	Max. Forward Operating Differancial Pressure	0.4MPa@23°C
	Max. Reverse Operating Differancial Pressure	0.3MPa@23°C
	Max. Operating Temperature	80°C

Stainless Steel Normal Series Gas Filter

Structure diagram





Ordering Information

Product	Core&Cage	Removal Rating	Outer Diameter	Adaptor				Length
				Type	Inlet	Outlet	Dimensions	
CRGN	P= PP	3=3nm 10=10nm	N=57	S=SWG V=VCR N=NPT	M=Male F=Female	M=Male F=Female	4=1/4 6=3/8 8=1/2	127=127 132=132 141=141 148=148

Stainless Steel P Type Series Gas Filter

Product Discription

The stainless steel **P Type Series** is designed specifically for bulk gases and provides cost-effective filtration solutions for non critical processes, with a filtration accuracy of up to 0.003 μ m. Commonly used for filtering process gases such as compressed air, nitrogen, and inert gases.



Features

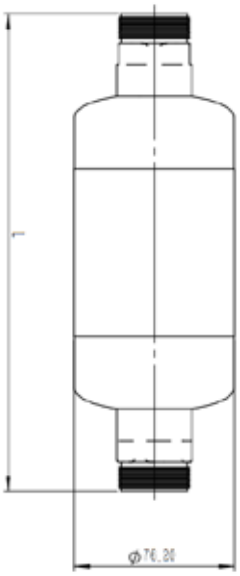
- 316L electrolytic polishing, PTFE Membrane, high chemical compatibility
- 100% integrity and helium leak detection

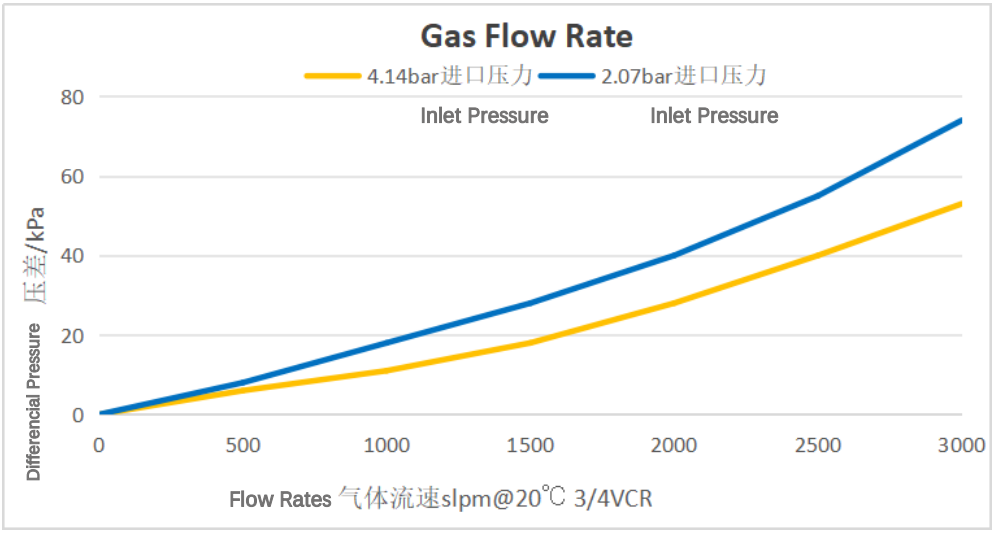
Specification parameters

Material	Membrane	Hydrophobic PTFE
	Core	PP
	O-ring	FKM
	Housing	316L
Internal Surface Treatment	Roughness	≤0.64μm
Removal Rating	≥0.003μm	
Recommended work flow	0-3000slpm	
Adaptor	1/2、3/4、1 VCR;1/2、3/4、1 SWG;1/2 NPT	
Helium leak testing	Design Verification	2×10^{-11}atm.cm^3/sec
	Process Verification	1×10^{-9}atm.cm^3/sec
Operating Conditions	Max. Operating Pressure	1.2MPa@80°C
	Max. Forward Operating Differancial Pressure	0.4MPa@23°C
	Max. Reverse Operating Differancial Pressure	0.3MPa@23°C
	Max. Operating Temperature	80°C

Stainless Steel P Type Series Gas Filter

Structure diagram





Ordering Information

Product	Core&Cage	Removal Rating	Outer Diameter	Adaptor				Length
				Type	Inlet	Outlet	Dimenstions	
CRGP	P= PP	3=3nm 10=10nm	P=76.02	S=SWG V=VCR N=NPT	M=Male F=Female	M=Male F=Female	8=1/2 12=3/4 16=1	214=214 220=220 225=225 235=235 340=340 355=355



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