

Filters

Ultra High Purity Filters

FP Series

Introduction

FP Series Ultra High Purity Filters feature a removal rating of 0.003 μm . Designed with a PTFE filter element, these filters offer excellent chemical compatibility, making them ideal for use in various semiconductor manufacturing processes, for example, filtering process gases, purge gases, and shielding gases in manufacturing processes such as CVD, PVD, and dry etching.



Features

- ⦿ Particle removal rating greater than 99.9999999% at 0.003 μm at maximum flow rate
- ⦿ Excellent chemical compatibility
- ⦿ 100% helium leak tested

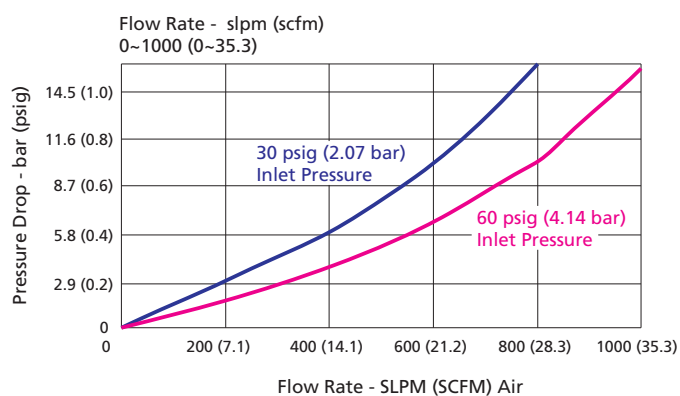
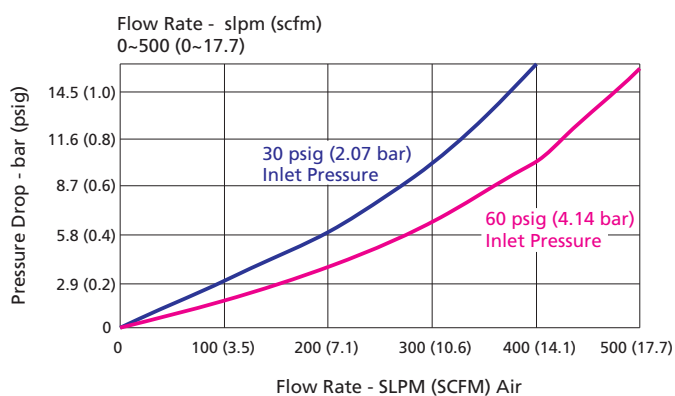
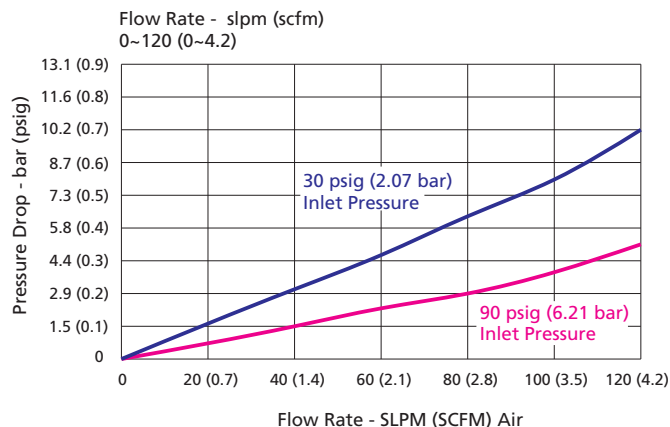
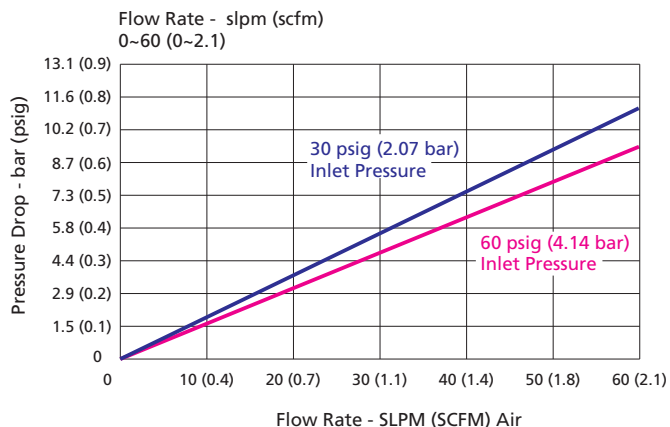
Technical Data

Material	Filter Element	PTFE		
	Support	PFA		
	Housing	316L or 316L SS VAR		
Removal Rating	$\geq 0.003 \mu\text{m}$			
Filter Efficiency (Log Reduction Value)	$> 99.9999999\%$ (9LRV)			
Helium Leak Rate	$< 1 \times 10^{-9}$ std cm^3/s			
Recommended Work Flow Rate	0~60 slpm (0~2.1 scfm)	0~120 slpm (0~4.2 scfm)	0~500 slpm (0~17.7 scfm)	0~1000 slpm (0~35.3 scfm)
Max. Working Pressure	3000 psig (207 bar)		1000 psig (68.9 bar)	
Max. Positive Differential Pressure	58 psig (4 bar) @23 °C		87 psig (6 bar) @23 °C	
Max. Negative Differential Pressure	10 psig (0.7 bar) @23 °C		44 psig (3 bar) @23 °C	
Max. Working Temperature	-22 ~ 248 °F (-30 ~ 120 °C)			

Process Specification

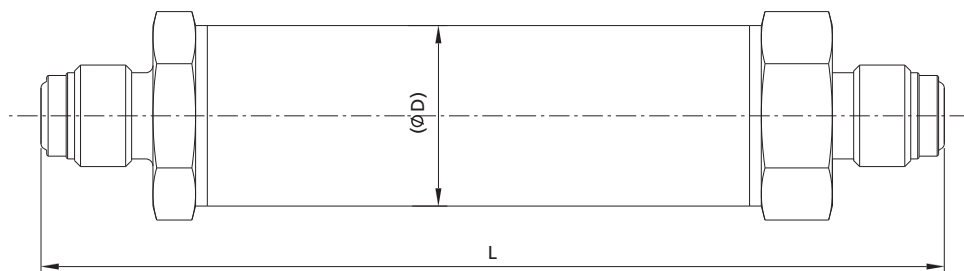
Item	Process Specification	Ultra High Purity (FC-03)
Material		316L SS, 316L SS VAR
Wetted Surface Roughness		Ra 5 $\mu\text{in.}$ (0.13 μm)
Polishing Process		Electropolished
Assembly Environment		ISO Class 4 (FS 209E Class 10 equivalent) cleanroom
Packaging		Double bagged in cleanroom

Flow Data



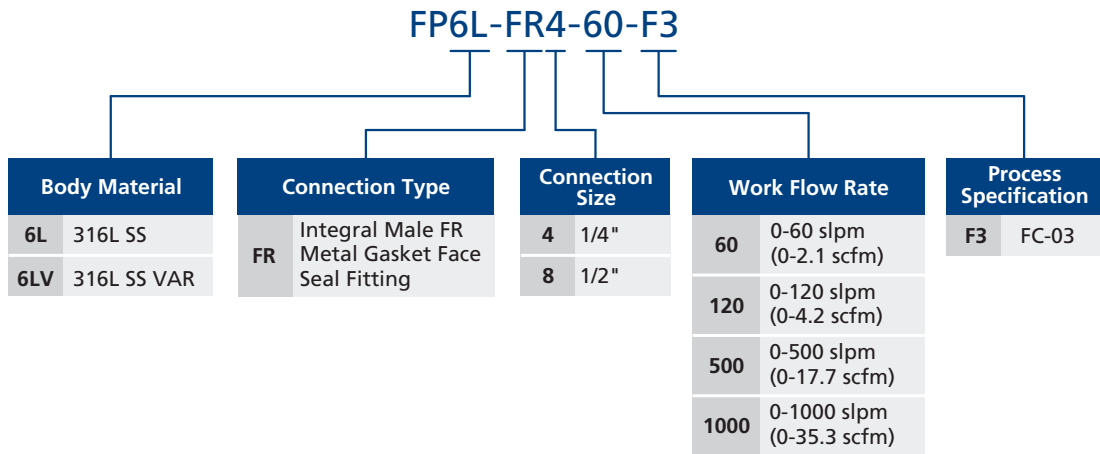
Dimensions and Ordering Information

Dimensions in in. (mm) are for reference only and subject to change.



Basic Ordering Number	Connection Type and Size	L in.(mm)	D in.(mm)
FP6L-FR4-60-F3	1/4" Male FR Metal Gasket Face Seal Fitting	3.31 (84.1)	0.75 (19.1)
FP6L-FR4-120-F3	1/4" Male FR Metal Gasket Face Seal Fitting	5.00 (127.0)	1.05 (26.6)
FP6L-FR4-500-F3	1/4" Male FR Metal Gasket Face Seal Fitting	5.00 (127.0)	1.30 (33.1)
FP6L-FR8-120-F3	1/2" Male FR Metal Gasket Face Seal Fitting	5.25 (133.4)	1.05 (26.6)
FP6L-FR8-1000-F3	1/2" Male FR Metal Gasket Face Seal Fitting	5.00 (127.0)	1.30 (33.1)

Ordering Number Description



Note: "Ordering Number Description" is a reference to understand the combination rules of FITOK product. Not all combinations are available.