BFR5K Series

UHP Bulk Gas Regulator
High Flow, Welded, Stainless Steel

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Value Proposition:

The BFR5K Series regulator is a compact, high flow, high performance Bulk Gas regulator designed for semiconductor processing.

The BFR5K provides a stable outlet pressure over a wide variety of conditions with flow rates as high as 5000 slpm.

The unique balanced poppet design allows the regulator to maintain the outlet pressure setting regardless of changes in the upstream pressure.

Contact Information:

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Richmond, California 94804

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vfo.support@support.parker.com

www.parker.com/veriflo

Product Features:

- 316L Stainless Steel Poppet and 321 Stainless Steel Bellows.
- High flow capacity.
- Tied diaphragm to poppet for added safety.
- Balanced poppet design reduces supply pressure effect.
- Capable of operating at a wide range of flows from 100 up to 5,000 slpm.
- Compatibility with semiconductor bulk gases.
- No spring in wetted area.
- Standard full internal electropolish.

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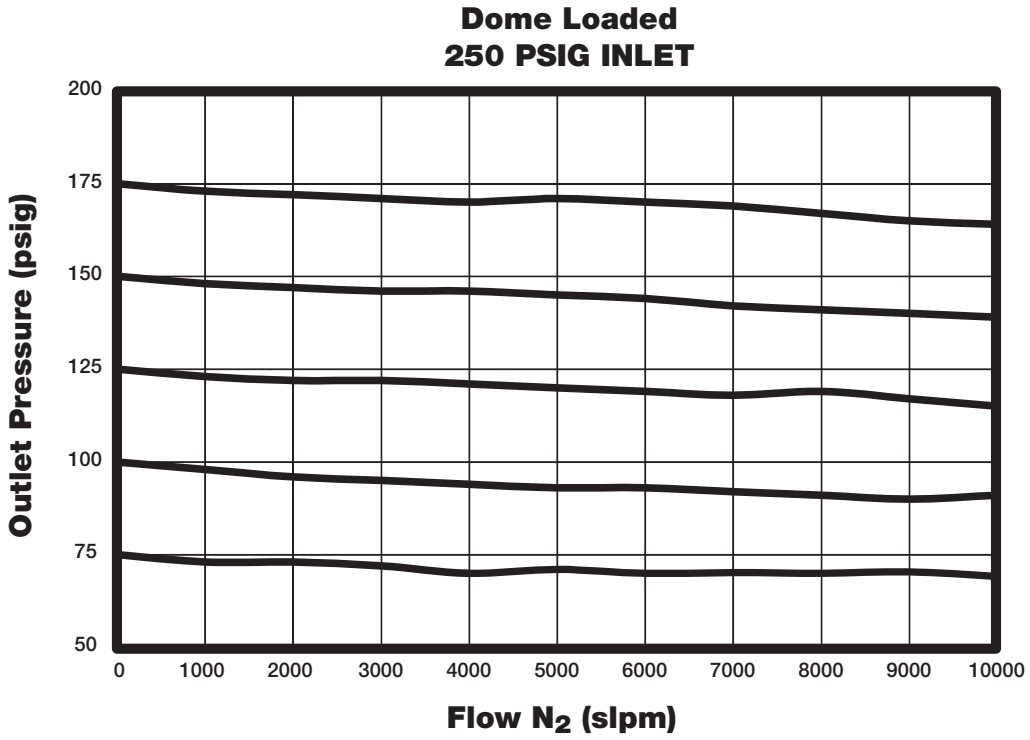
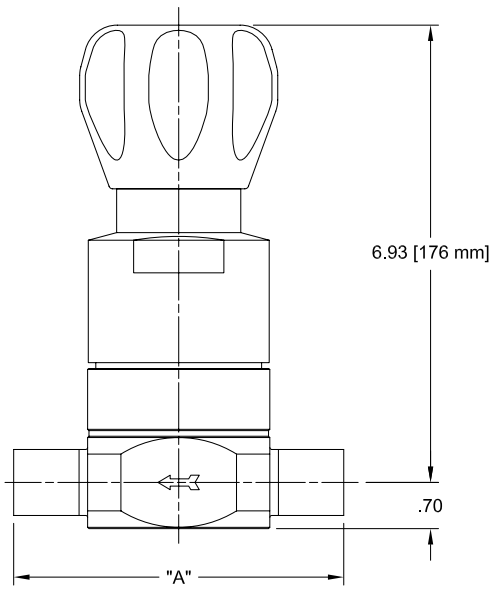
BFR5K Series

Flow Curve

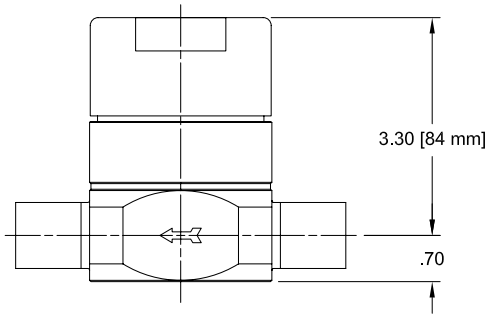
Additional flow curves available upon request



Dimensional Drawing



DIMENSION TABLE		
Connection Type	End to End Dimension	
	"A" inches	"A" mm
3/4" Face Seal	6.0	152.4
1" Face Seal	6.5	165.1
3/4" Tube Stub	5.0	127.0
1" Tube Stub	5.0	127.0
1-1/2" Tube Stub	10.5	266.7



Safety Guide and Installation and Operating Instructions available at
www.parker.com/veriflo

BFR5K Series

Ordering Information

Build a BFR5K Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

Color Explanations: Black = Standard Lead Time Configurations
Blue = Extended Lead Time Configurations

For an explanation of Ordering options please reference literature 25000275 at www.parker.com/veriflo

	1	2	3	4	5	6	7	8
Sample: **BFR5K**	**100**	**S**	**K**	**3P**	**01**	**FS16**	**MMM**	**G**

Finished Order: **BFR5K100SK3P01FS16MMMG**

1 Pressure Setting

Range		Outlet Gauge
60	= 0 - 60 psig	
100	= 0 - 100 psig	
150	= 0 - 150 psig	2
200	= 0 - 200 psig	2
DL	= 0 - 200 psig (Dome Loaded)	

2 Body Material

S = 316L Stainless Steel

3 Seat Material

K = PCTFE

4 Porting

2P = 2 Ports *No X required for gauges, inlet & outlet ports only*
3P = 3 Ports *One X for gauge port*

5 Outlet Gauge

OL = 0 - 60 psig
01 = 0 - 100 psig
2 = 0 - 200 psig
4 = 0 - 400 psig
X = No Gauge
Additional ranges available upon request

6 Port Style

TS12 = 3/4” Tube Stub
TS16 = 1” Tube Stub
TS24 = 1.5” Tube Stub
FS12 = 3/4” Face Seal
FS16 = 1” Face Seal

7 Port Configuration

M = Male
F = Female
1/4” FS-M Gauge Ports are Standard

8 Optional Features

G = Tamper Proof
E = Ethylene Propylene O-ring
EV = 5 Micro In Surface Finish

BFR5K Series

Specifications

Materials of Construction	
Wetted	
Body	VeriClean™ 316L Stainless Steel
Poppet and Trim	VeriClean™ 316L Stainless Steel
Seat	PCTFE
O-ring Options	Fluorocarbon (std) or Ethylene Propylene
Bellows	
Inner	Inconel® 718
Outer	321 Stainless Steel
Non-wetted	
Cap	Nickel Plated Brass
Operating Conditions	
Maximum Inlet	500 psig
Outlet Options	
Manual	0-60 psig 0-100 psig 0-150 psig 0-200 psig
Dome Loaded	0-200 psig
Temperature	-40°F to 150°F (-40°C to 66°C)

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

Functional Performance	
Flow Capacity	C_V 4.5
Leak Rate	
Internal	Bubble Tight
External	$< 1 \times 10^{-9}$ scc/sec He Inboard Test Method
Internal Volume	71 cc without connections
Approx. Weight	
Dome Loaded	5.7 lbs. (2.6 kg)
Manual	7.7 lbs. (3.5 kg)
Surface Finish	
Standard Ra	10 micro inch Ra
EV Ra	5 micro inch Ra

VeriClean™ is a trademark of Parker Hannifin Corporation
Inconel® is a registered trademark of Special Metals Corporation

Use mobile device to scan this QR Code.

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