

# FRN1000 Series

UHP Single Stage, Pressure Reducing Regulator



## Consistent, Long Life Performance

The FRN1000 Series pressure reducing regulator provides precise control of process gas resulting in a stable flow and pressure supply to downstream systems making it an excellent choice for general point of use semiconductor manufacturing gas applications.

The standard Hastelloy C-22<sup>®</sup> diaphragm and integrated filtration promotes long life performance while the metal-to-metal diaphragm seal assures high leak integrity.



## Contact Information:

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## Product Features:

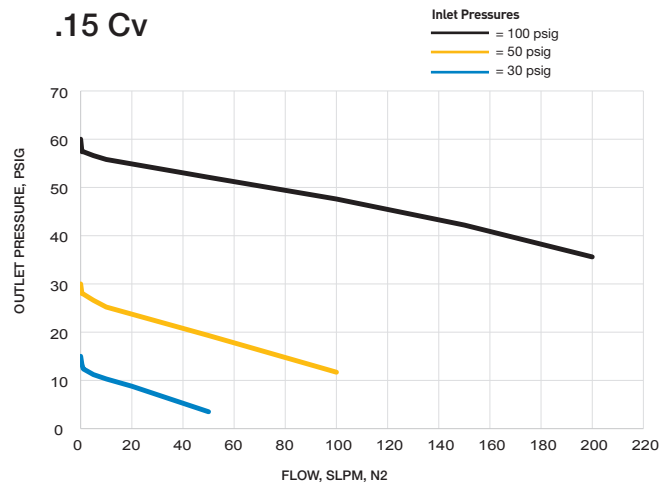
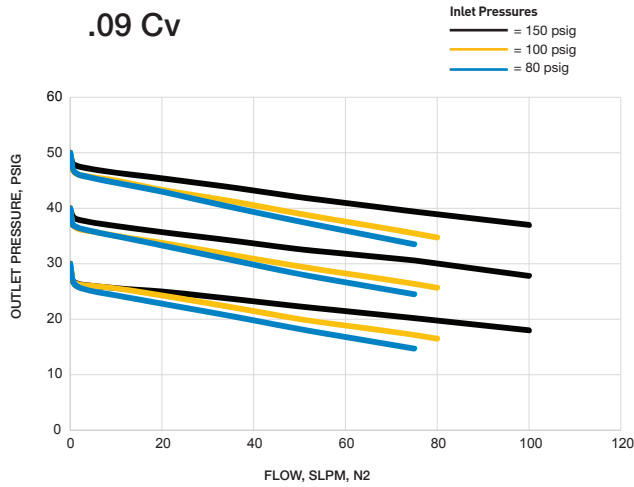
- 316L stainless steel body
- Metal-to-metal diaphragm seal standard
- Cleaned for oxygen service
- Inlet pressures up to 3500 psig
- Passivated
- Hastelloy<sup>®</sup> diaphragm standard
- Flows up to 200 slpm



ENGINEERING YOUR SUCCESS.

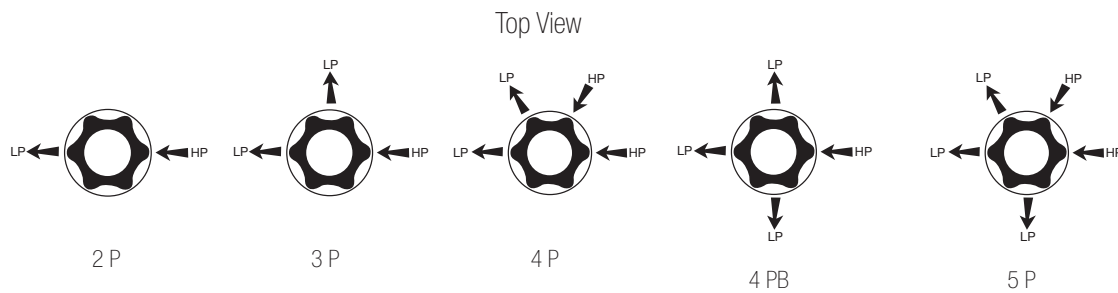
# FRN1000 Series

## Flow Curves

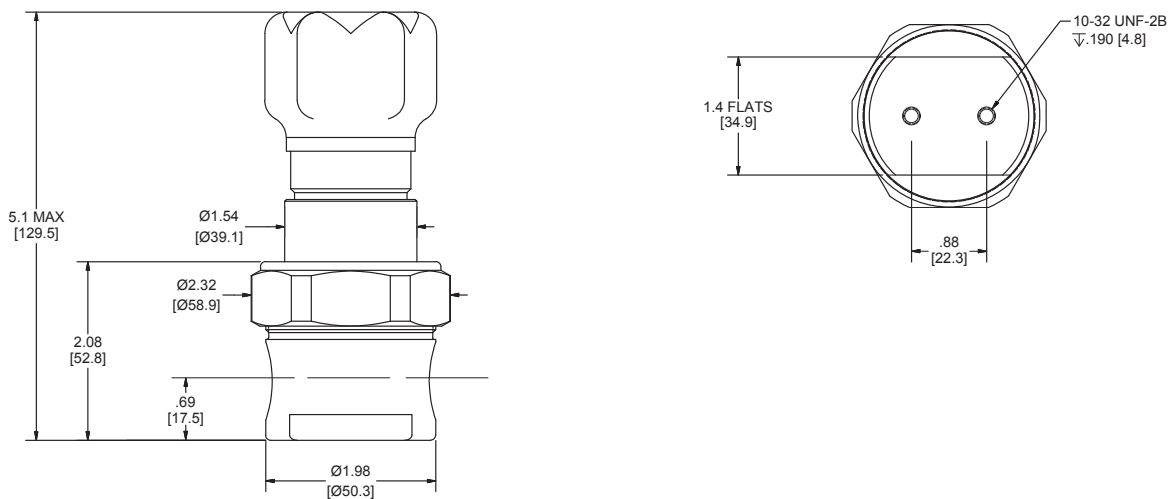


Additional flow curves available upon request

## Porting Configurations



## Dimensional Drawings



All dimensions in inches. Metric dimensions are for reference only.

Safety Guide and Installation and Operating Instructions available at  
[www.parker.com/veriflo](http://www.parker.com/veriflo)

# FRN1000 Series

## Ordering Information

Build an FRN1000 Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

Contact factory for most up to date lead time information.

Blue = Configurations that have selections in blue may have an extended lead time and a minimum order quantity.

Sample: **FRN1003 S 9 K 4P X X 4 PM**  
Finished: **FRN1003S9K4PXX4PM**

### 1 Basic Series Configuration

FRN1001= 1 - 10 psig\*  
FRN1003= 1 - 30 psig  
FRN1006= 2 - 60 psig  
FRN1010= 2 - 100 psig  
FRN1015= 5 - 150 psig  
FRN1020= 5 - 200 psig  
FRN1030= 5 - 300 psig  
FRN1050= 10 - 500 psig

\* 300 psig maximum inlet pressure.

### 2 Body Material

S = 316L SS

### 3 Flow Capacity

9 = .09 Cv  
15 = .15 Cv

### 4 Seat Material

K = PCTFE  
V = Polyimide

### 5 Porting\*

2P = 2 Ports  
3P = 3 Ports  
4P = 4 Ports  
4PB = 4 Ports  
5P = 5 Ports

\* Refer to the Regulator Porting Guide, 25000156, for additional porting configurations.

### 6 Outlet Gauge\*

X = No Gauge  
03 = 0 - 30 psig  
OL = 0 - 60 psig  
01 = 0 - 100 psig  
2 = 0 - 200 psig  
4 = 0 - 400 psig

\* Only include with "3P" or "4P" body configurations.

### 7 Inlet Gauge\*

X = No Gauge  
01 = 0 - 100 psig  
4 = 0 - 400 psig  
10 = 0 - 1000 psig  
20 = 0 - 2000 psig  
30 = 0 - 3000 psig  
40 = 0 - 4000 psig

\* Only include with "4P" body configuration.

### 8 Port Style

4 = 1/4" NPT Female  
4T = 1/4" A-LOK®  
6T = 3/8" A-LOK®

### 9 Optional Features

Blank = none  
PM = Panel Mount  
\*Panel Mount hole:  
1.56in (39.6mm)  
TH = Ni-Cr-Mo alloy  
(Hastelloy® or equivalent)  
poppet

# FRN1000 Series

## Specifications

Wetted Materials of Construction	
Body	316L SS (std)
Diaphragm	Ni-Cr-Mo alloy (Hastelloy® or equivalent)
Poppet	316L SS (std), Ni-Cr-Mo alloy (Hastelloy® or equivalent)
Poppet Spring	316 SS
Seat Retainer	316L SS
Seat	PCTFE (std), Polyimide
Finish	Passivated

For additional information on materials of construction, functional performance and operating conditions refer to Veriflo report RI.EN.RP017.

All specifications subject to change without notice.

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Functional Performance	
Flow Capacity (Cv)	.09 (std) .15
Internal Leakage (seat)	$\leq 4 \times 10^{-8}$ scc/sec He
External Leakage (Inboard)	$\leq 2 \times 10^{-10}$ scc/sec He
Supply Pressure Effect	
.09 Cv	0.6 psig/100 psig
.15 Cv	1.5 psig/100 psig
Proof Pressure	5250 psig
Burst Pressure	10,500 psig
Operating Conditions	
Maximum Inlet Pressure	300 psig <sup>2</sup> or 3500 psig <sup>1</sup>
Temperature	-40°F to 150°F <sup>1</sup> (-40°C to 65°C)

1. Pressure rating based on nominal temperature conditions. Refer to Veriflo Report RI.EN.RP017 for specific information regarding regulator performance at temperature.
2. Applies to the "FRN1001" model configuration, 10 psig outlet pressure range.

#### OFFER OF SALE:

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