

FRN1000 Series

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[®] diaphragm and integrated filtration promotes long life performance while the metal-to-metal diaphragm seal assures high leak integrity.



Contact Information:

Parker Hannifin Corporation
Veriflo Division
250 Canal Blvd.
Richmond, California 94804

phone 510 235 9590
vfo.quotes@support.parker.com
vfo.support@support.parker.com

www.parker.com/veriflo
Mobile App: m.parker.com/veriflo

Product Features:

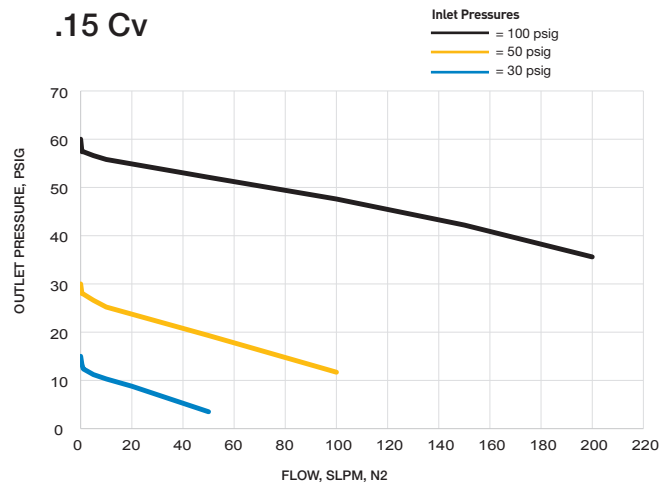
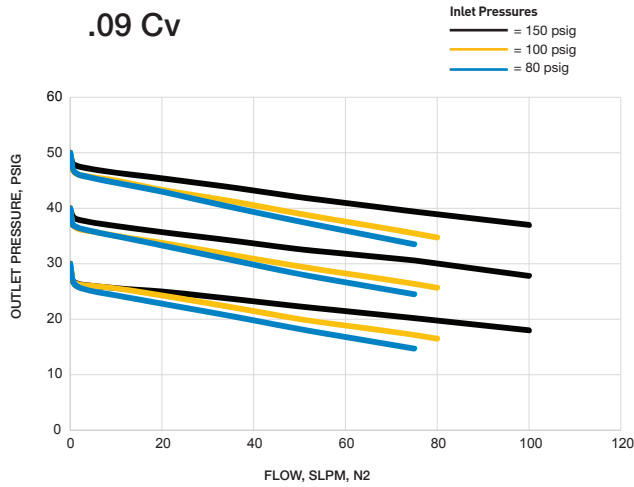
- 316L stainless steel body
- Metal-to-metal diaphragm seal standard
- High purity cleaned
- Inlet pressures up to 3500 psig
- Passivated
- Hastelloy[®] diaphragm standard
- Flows up to 200 slpm
- Integrated filtration



ENGINEERING YOUR SUCCESS.

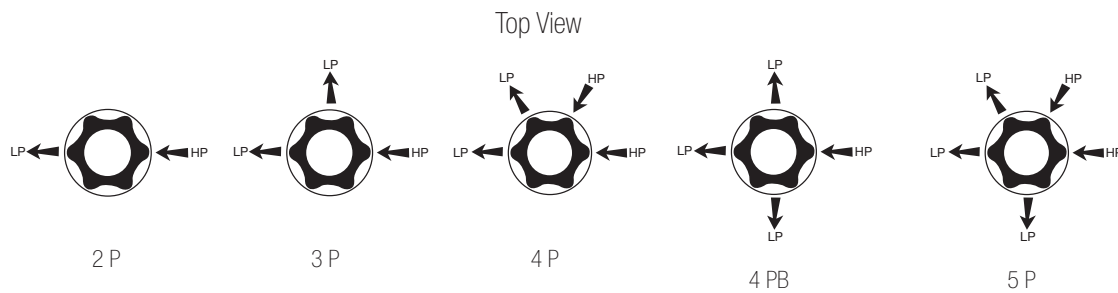
FRN1000 Series

Flow Curves

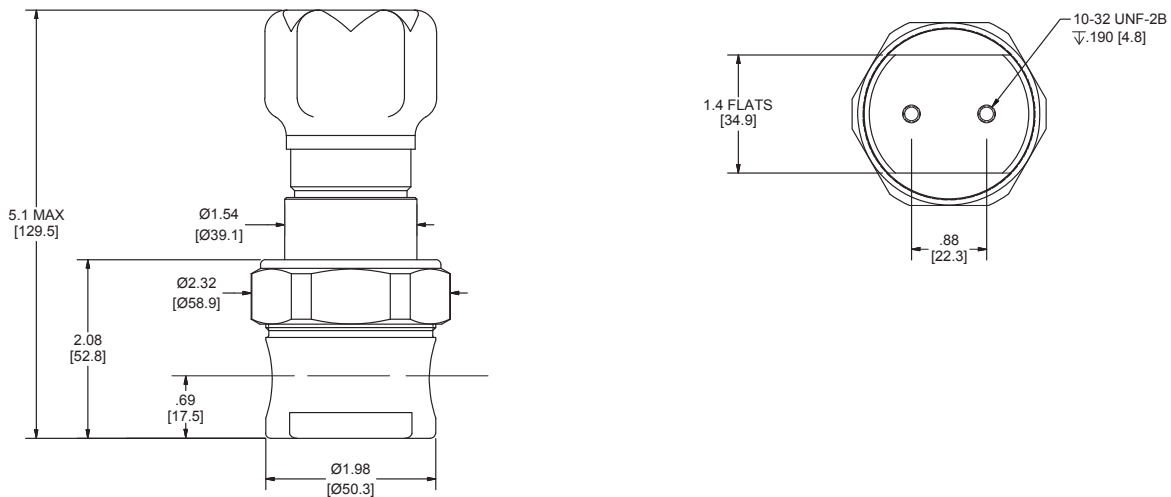


Additional flow curves available upon request

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

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 will require a price quote and lead time from the factory.

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

* 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", "4P", "4PB" or "5P" 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" or "5P" body configuration.

8 Port Style*

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

* 1/4" FNPT Gauge Ports are Standard
Any other gauge port configuration may have an extended lead time.

9 Optional Features

Blank = none
PM = Panel Mount
TH = Ni-Cr-Mo alloy
(Hastelloy® or equivalent)
poppet

FRN1000 Series

Specifications

Wetted Materials of Construction	
Body	316L SS
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
Internal Filter Screen	Ni-Cr-Mo Alloy (Hastelloy® or equivalent) 74 µm
Filter Screen*	316L SS, 74 µm
Seat	PCTFE (std), Polyimide
Finish	Passivated

* Filter screen located within inlet port.

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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Hastelloy® is a registered trademark of Haynes International, Inc.

Functional Performance	
Flow Capacity (Cv)	.09 (std) .15
Internal Leakage (seat)	Bubble Tight
External Leakage	Bubble Tight
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 ² or 3500 psig ¹
Temperature	-40°F to 150°F ¹ (-40°C to 65°C)
Mounting	Surface (std)
	Panel (1.75 in. [44.4mm] hole required)

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.

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Proposition 65 Warning: This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.