FR1300 Series

Single Stage Pressure Reducing Regulator
Ultra High Purity • High Flow • Stainless Steel

Precise Control, High Flow Performance

The FR1300 Series ultra high purity, pressure reducing regulator offers high-flow capability with an inlet pressure up to 600 psig and is an excellent choice for point of use bulk and specialty gas applications.

Contact Information:

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

Product Features:

- 316L stainless steel body
- Manufactured for ultra high purity semiconductor gas applications
- Metal-to-metal diaphragm seal
- 10 µin. Ra surface finish
- Passivated & Electropolished
- Hastelloy C-22® diaphragm
- Flows up to 1200 slpm (42 scfm)

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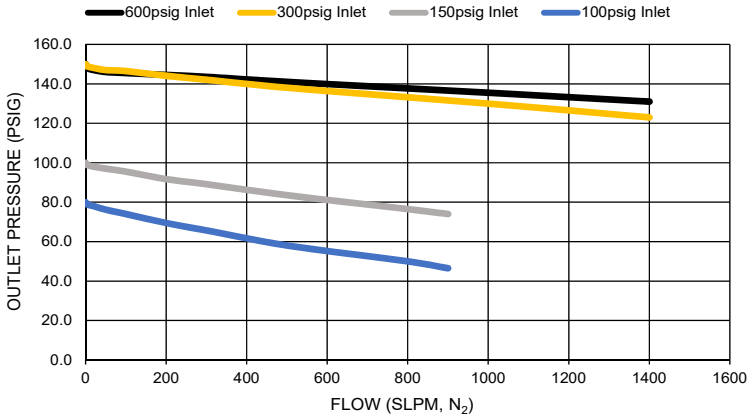
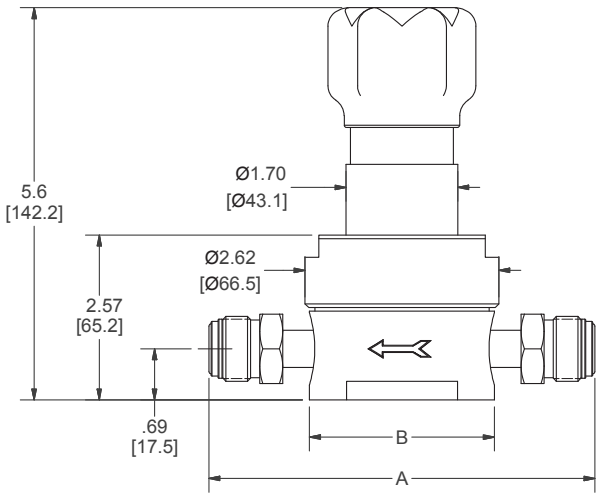
FR1300 Series

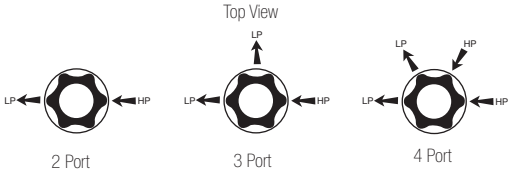
Flow Curves

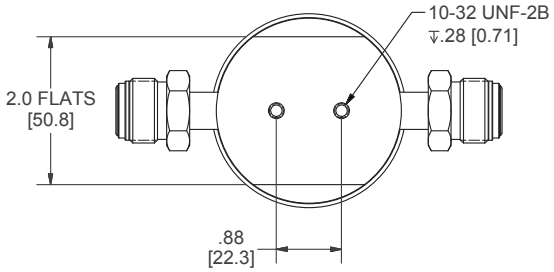


Dimensional Drawings



Porting Configurations





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

DIMENSION TABLE		
Connection Type	**End to End Dimension (A)**	**Body Diameter (B)**
1/4" Face Seal (male & female)	4.30 ± .02 in. [109 ± .5 mm]	Ø2.50 in. [63.5 mm]
3/8" Face Seal	5.22 ± .02 in. [133 ± .5 mm]	Ø2.50 in. [63.5 mm]
3/8" Tube Stub	4.00 ± .02 in. [102 ± .5 mm]	Ø2.50 in. [63.5 mm]
1/2" Face Seal	5.22 ± .02 in. [133 ± .5 mm]	Ø2.50 in. [63.5 mm]
1/2" Tube Stub	4.34 ± .02 in. [110 ± .5 mm]	Ø2.50 in. [63.5 mm]

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

FR1300 Series

Ordering Information

Build an FR1300 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.

	1	2	3	4	5	6	7	8	9	10	11
Sample:	FR1315	H	S	12	K	4P	X	X	FS6	FF	PM
Finished Order:	FR1315HS12K4PXXFS6FFPM										

1 Basic Series

FR1303 = 1 - 30 psig
FR1306 = 5 - 60 psig
FR1310 = 10 - 100 psig
FR1315 = 15 - 150 psig

2 Source Pressure Range

H = 0 - 600 psig

3 Body Material

S = 316L SS*

4 Flow Capacity

12 = 1.2 Cv

5 Seat Material

K = PCTFE
V = Polyimide

6 Porting*

2P = 2 Ports
3P = 3 Ports
4P = 4 Ports

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

7 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.*

8 Inlet Gauge*

X = No Gauge
01 = 0 - 100 psig
4 = 0 - 400 psig
10 = 0 - 1000 psig
20 = 0 - 2000 psig

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

9 Port Style

FS = 1/4" Face Seal
FS6 = 3/8" Face Seal *
TS6 = 3/8" Tube Stub
FS8 = 1/2" Face Seal
TS8 = 1/2" Tube Stub
FS12 = 3/4" Face Seal
TS12 = 3/4" Tube Stub

** Provided with 1/2" face seal nuts.*

10 Port Configuration

M = Male
F = Female
I = Internal Face Seal (gauge ports only)

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

11 Optional Features

This section can have multiple options

Blank = None
PM = Panel Mount

FR1300 Series

Specifications

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

For additional information on materials of construction, functional performance and operating conditions, please refer to Veriflo report RI.EN.RP021.

All specifications subject to change without notice.

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Functional Performance	
Flow Capacity (Cv)	1.2
Internal Leakage (seat)	Bubble Tight
External Leakage (Inboard)	≤ 2 x 10^{-10} scc/sec He
Supply Pressure Effect	*5.9 psig / 100 psig*
Internal Volume	
1/4" Face Seal	1.02 in^3 (16.7 cm^3)[1]
1/2" Face Seal	1.41 in^3 (23.1 cm^3)[1]
3/4" Face Seal	2.42 in^3 (39.7 cm^3)[1]
Proof Pressure	900 psig
Burst Pressure	1,800 psig
Operating Conditions	
Maximum Inlet Pressure	600 psig[2]
Temperature	-40°F to 150°F (-40°C to 65°C)
Mounting	Surface (std)
	Panel (1.50 in. [38.1 mm] hole required)

1. Internal volume includes end connections.
2. Pressure rating based on nominal temperature conditions. Refer to Veriflo report RI.EN.RP021 for specific information regarding regulator performance at temperature.

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