

735W & NPR735W Series

UHP Two Stage, Tied Diaphragm Regulator
High Pressure, Welded, Stainless Steel

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

Value Proposition:

The 735W Series regulator offers a two stage, tied diaphragm design to provide a constant outlet pressure regardless of inlet pressure fluctuations.

The 735W Series tied diaphragm regulator provides shut off of corrosive or hazardous gases if a leak across the seat occurs. The added unique compression member loading eliminates threads in the wetted area, thus reducing particle entrapment.

For subatmospheric pressure control, a negative pressure 735W regulator (NPR735W) is available.



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Product Features:

- Tied Diaphragm for added safety
- Unique compression member loads the seal to body eliminating threads in the wetted area
- Metal-to-metal diaphragm-to-body seal assures high leak integrity
- Standard full internal electropolish
- Vericlean™, Veriflo's low sulfur high purity 316L Stainless Steel enhances electropolishing, welding, and corrosion resistance

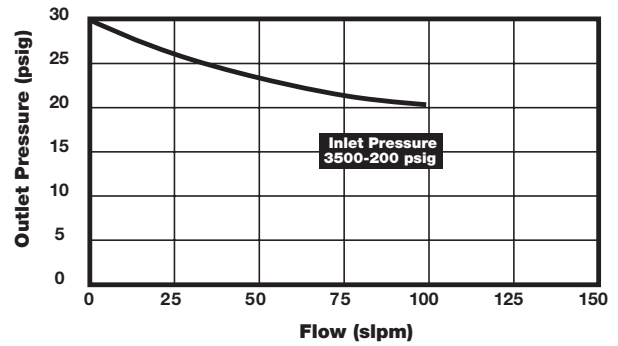
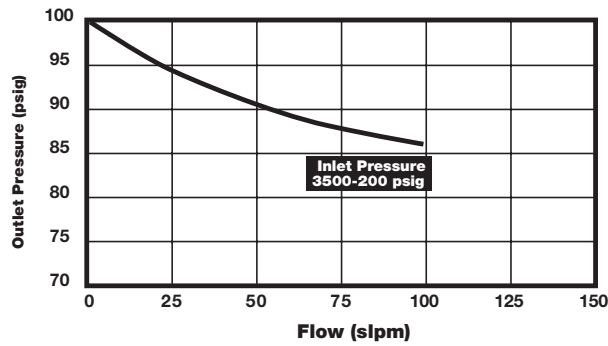


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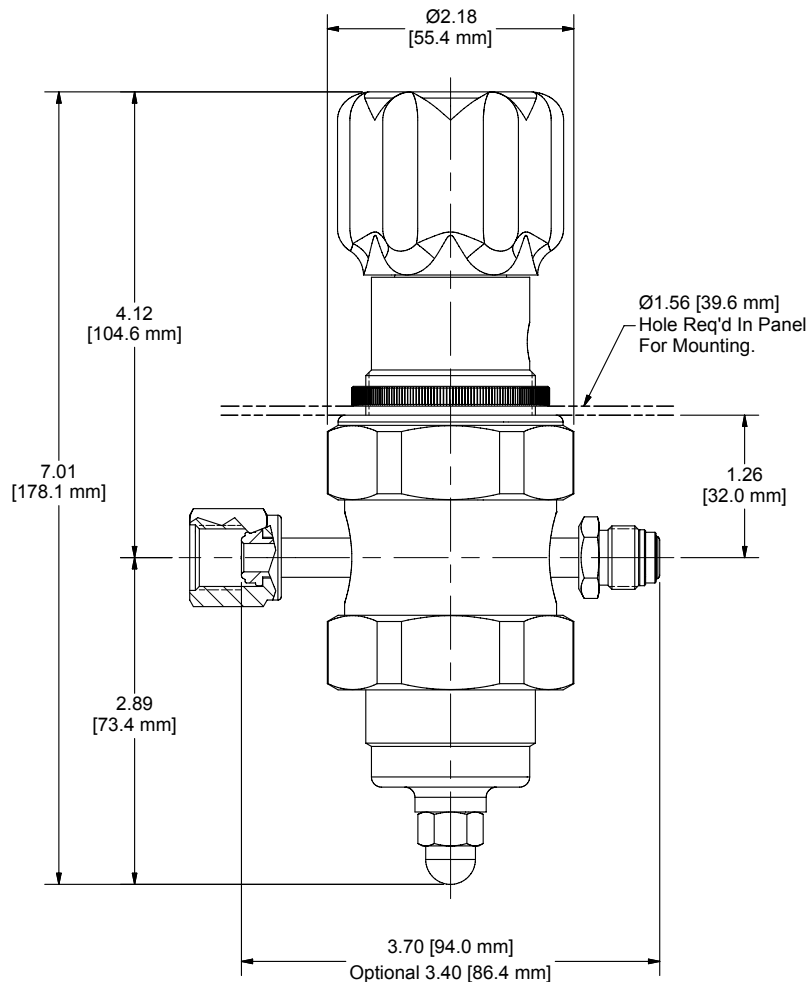
Flow Curves

Additional flow curves available upon request



These tests were performed using Nitrogen at ambient conditions.

Dimensional Drawing



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

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Ordering Information

Build a 735W or NPR735W 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

Sample: **73530 W 4P V3 40 FS MMMM PM**

Finished Order: **73530W4PV340FSMMMMPM**

1 Range
73530 = 1 - 30 psig
735100 = 3 - 100 psig
NPR73530 = -25 in Hg - 0-30 psig

2 Body Material
W = 316L Stainless Steel

3 Porting
2P = 2 Ports *No X required for gauges, inlet & outlet ports only*
3P = 3 Ports *One X for gauge port*
4P = 4 Ports *Two X's for gauge ports*
See Regulator Porting Guide for additional options and port layouts

4 Outlet Gauge
V3 = -30 in Hg 0 - 30 psig
V1 = -30 in Hg 0 - 100 psig
V2 = -30 in Hg 0 - 200 psig
X = No Gauge
Additional ranges available upon request

5 Inlet Gauge
V1 = -30 in Hg 0 - 100 psig
10 = 0 - 1000 psig
30 = 0 - 3000 psig
40 = 0 - 4000 psig
X = No Gauge
Additional ranges available upon request

6 Port Style
FS = 1/4" Face Seal
TS = 1/4" Tube Stub

7 Port Configuration
M = Male
F = Female
I = Internal Face Seal
1/4" FS-M Gauge Ports are Standard

8 Optional Features
This section can have multiple options
PM = Panel Mount
TH = Hastelloy Trim *Includes Hastelloy C-22® diaphragm, compression member, poppet and screen with an Inconel® spring*
VESP = Vespe® Seat *Recommended for N₂O Service*

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Specifications

Materials of Construction	
Wetted	
Body	316L Stainless Steel
Compression Member Options	316L Stainless Steel (std) or Hastelloy C-22®
Diaphragm Options	316L Stainless Steel (std) or Hastelloy C-22®
Seat Options	PCTFE (std) or Vespel®
Poppet Options	316L Stainless Steel (std) or Hastelloy C-22®
Poppet Spring Options	316L Stainless Steel (std) or Inconel®
Poppet Screen	Hastelloy C-22®
Non-wetted	
Cap	Nickel Plated Brass
Nut	316L Stainless Steel
Knob	ABS
Operating Conditions	
Maximum Inlet	3,500 psig (240 barg)
Outlet Options	
735W	1 - 30 psig (2 barg) 3 - 100 psig (7 barg)
NPR735W	-25 in Hg to 30 psig
Temperature	-40°F to 150°F (-40°C to 65°C)

Functional Performance	
Design	
Burst Pressure	10,500 psig (724 barg)
Proof Pressure	5,250 psig (362 barg)
Flow Capacity	C_v 0.04
Leak Rate	
Internal	< 2×10^{-9} scc/sec He
External	< 2×10^{-10} scc/sec He
Internal Volume	10.10 cc without fittings
Approx. Weight	3.5 lbs. (1.6 kg)

Vespel® is a registered trademark of DuPont Performance Elastomers L.L.C.
Hastelloy C-22® is a registered trademark of Haynes International, Inc.
Inconel® is a registered trademark of Special Metals Corporation

For additional information on materials of construction, functional performance and operating conditions, please see Regulator Technical Bulletin.

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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.

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