

# 959 & NPR959 Series

Tied Diaphragm  
Single Stage Regulator



## Customer Value Proposition:

The 959 Series Regulator is a high pressure, tied diaphragm regulator.

The 959 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.

Subatmospheric pressure control is available with the NPR959, a negative pressure 959 regulator.



## Contact Information:

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

phone 510 235 9590  
fax 510 232 7396  
[veriflo.sales@parker.com](mailto:veriflo.sales@parker.com)

[www.parker.com/veriflo](http://www.parker.com/veriflo)

## Product Features:

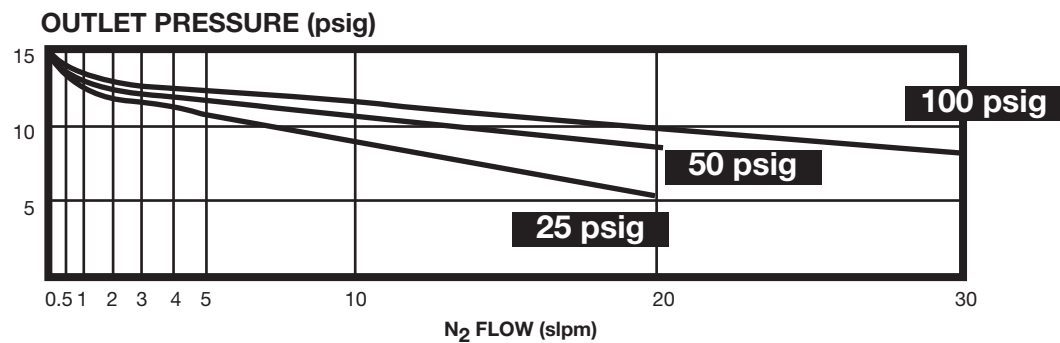
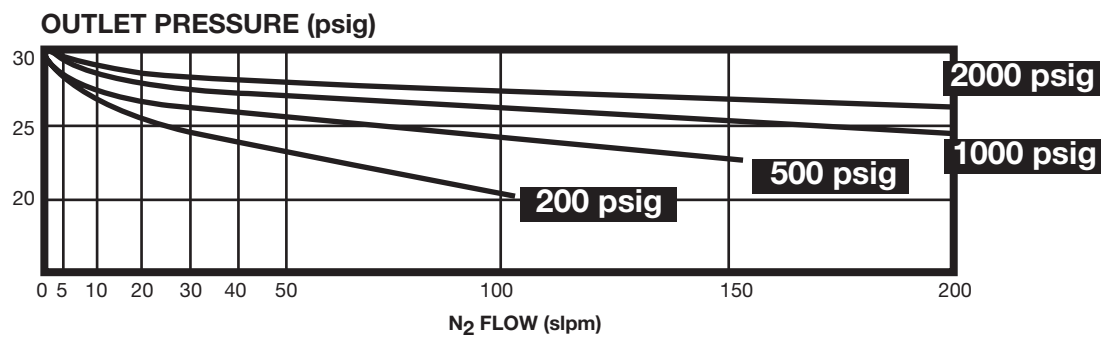
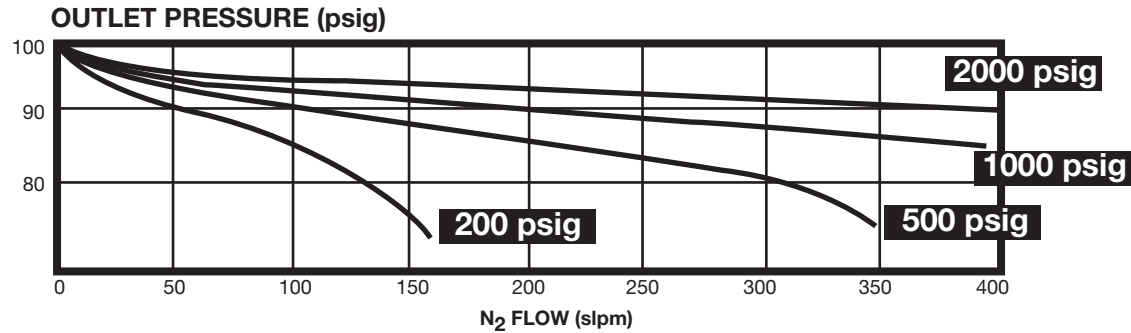
- Tied Diaphragm for added safety.
- Unique compression member loads seal to body without requiring a threaded nozzle or additional seals to atmosphere.
- Metal-to-metal diaphragm-to-body seal assures high leak integrity.
- Adjustment range spring may be replaced without breaking diaphragm seal to body and exposing the wetted area to contamination.
- Cleaned for O<sub>2</sub> service is standard.



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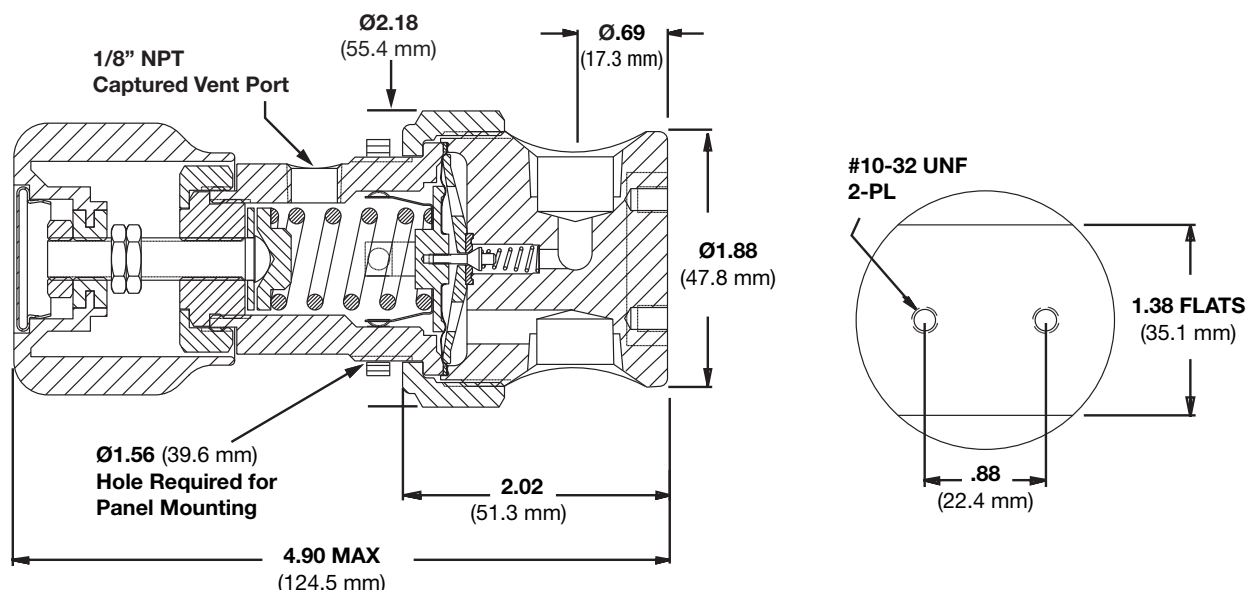
## Flow Curves



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

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## Dimensional Drawing



## Ordering Information

Build an 959 & NPR959 Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

Sample: **959** **30** **S** **4P** **OL** **30** **4** **TH**  
 Finished Order: **95930S4POL304TH**

**1 Range**  
 30 = 1 - 30 psig  
 100 = 3 - 100 psig  
 150 = 5 - 150 psig  
 NPR959 = -25 in Hg 0 - 30 psig

**2 Body Material**  
 S = 316L Stainless Steel  
 H = Hastelloy C-22® *Includes Hastelloy C-22® body, diaphragm, compression member, poppet and Inconel® spring*

**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*  
 4PB = 4 Ports *One X for gauge port*  
 5P = 5 Ports *Two X's for gauge ports*  
 6P = 6 Ports *Two X's for gauge ports*

*See Regulator Porting Guide for additional options and port layouts*

**4 Outlet Gauge**  
 03 = 0 - 30 psig  
 OL = 0 - 60 psig  
 01 = 0 - 100 psig  
 2 = 0 - 200 psig  
 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**  
 2 = 0 - 200 psig  
 6 = 0 - 600 psig  
 10 = 0 - 1000 psig  
 20 = 0 - 2000 psig  
 30 = 0 - 3000 psig  
 40 = 0 - 4000 psig  
 V1 = -30 in Hg 0 - 100 psig  
 X = No Gauge  
*Additional ranges available upon request*

**6 Port Style**  
 4 = 1/4" NPT Female  
*All Gauge Ports are 1/4" NPT Female*

**7 Optional Features**  
 This section can have multiple options  
 2 = 0.2 Cv  
 DO = Dome Loaded  
 PM = Panel Mount  
 R = Relief Valve 4PB, 5P and 6P Only  
 TH = Hastelloy Trim *Available on Stainless Steel body, only. Includes Hastelloy C-22® diaphragm, compression member, poppet and screen with an Inconel® spring*  
 VESP = Vespel® Seat *Recommended for N<sub>2</sub>O Service*

**Note:** Veriflo reserves the right to plug NPT ports. If a true ported body is required, please contact Customer Service.

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## Specifications

Materials of Construction	
<b>Wetted</b>	
Body Options	316L Stainless Steel (std) or Hastelloy C-22®
Compression Member Options	316L Stainless Steel (std) or Hastelloy C-22®
Diaphragm Options	316L Stainless Steel (std) or Hastelloy C-22®
Seat Options	PCTFE or Vespel®
Poppet Options	316L Stainless Steel (std) or Hastelloy C-22®
Poppet Spring Options	316 Stainless Steel (std) or Inconel® X750
Poppet Screen	Hastelloy C-22®
Inlet Screen	316L Stainless Steel (std) or Hastelloy C-22®
<b>Non-wetted</b>	
Cap	Nickel Plated Brass
Nut	316L Stainless Steel
Knob	ABS (Black) - 959 Only
	ABS (White) - NPR959 Only

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

Functional Performance	
<b>Design</b>	
Burst Pressure	10,500 psig (724 barg)
Proof Pressure	5,250 psig (362 barg)
<b>Flow Capacity</b>	
C <sub>v</sub> Options	C <sub>v</sub> 0.04 (std) or C <sub>v</sub> 0.2
<b>Leak Rate</b>	
Internal	Bubble Tight
External	Bubble Tight
<b>Supply Pressure Effect</b>	
C <sub>v</sub> 0.04	0.6 psig/100 psig
C <sub>v</sub> 0.2	1.5 psig/100 psig
<b>Internal Volume</b>	5.41 cc without fittings
<b>Approx. Weight</b>	2 lbs. (0.9 kg)
<b>Operating Conditions</b>	
Maximum Inlet	<i>based on C<sub>v</sub> Option</i>
C <sub>v</sub> 0.04	3,500 psig (240 barg)
C <sub>v</sub> 0.2	1,250 psig (86 barg)
<b>Outlet Options</b>	
959	1 - 30 psig (2 barg)
	3 - 100 psig (7 barg)
	5 - 150 psig (10.3 barg)
NPR959	-25 in Hg - 0-30 psig
Temperature	-40°F to 150°F (-40°C to 65°C)

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

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