

AVR3 Series

Steam Heated, Vaporizing Pressure Regulator
Pressure Reducing, Stainless Steel



Value Proposition:

The AVR3 Series regulator is designed to heat and/or vaporize a gas or liquid sample before entering an analyzer system.

The unique design allows the user to disassemble the regulator and heat transfer components for complete cleaning and repair of the unit, thus reducing expensive replacement costs and down time.



Contact Information:

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Product Features:

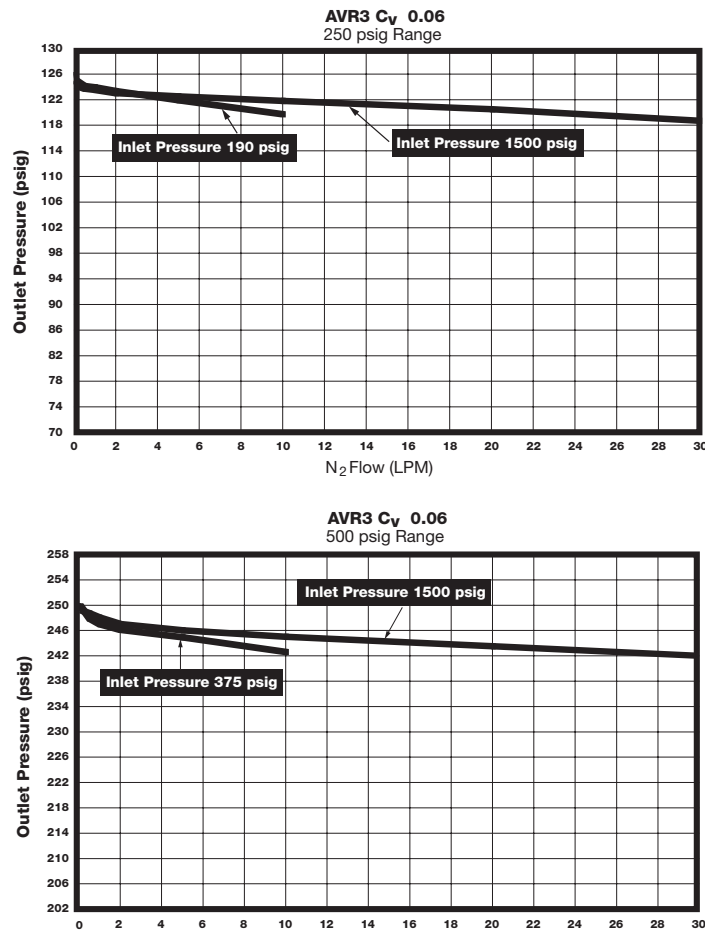
- Ultra low internal volume
- Cleaned for O₂ service is standard
- Convuluted Hastelloy C-22® diaphragm for superior strength and corrosion resistance provides outlet pressure stability with changes in flow
- Integral diaphragm stop provides additional measure of safety
- Field serviceable heat transfer element
- Express Service Program available noted *green italic print*



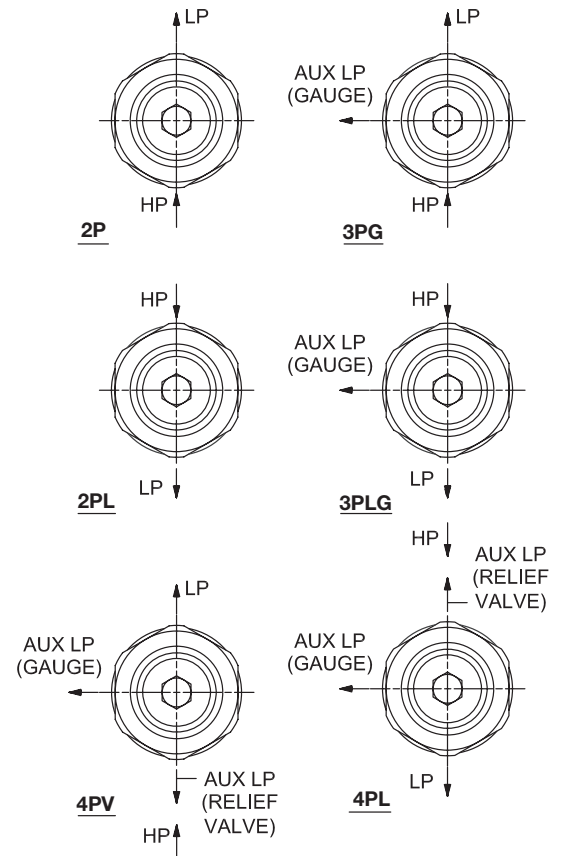
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AVR3 Series

Flow Curves

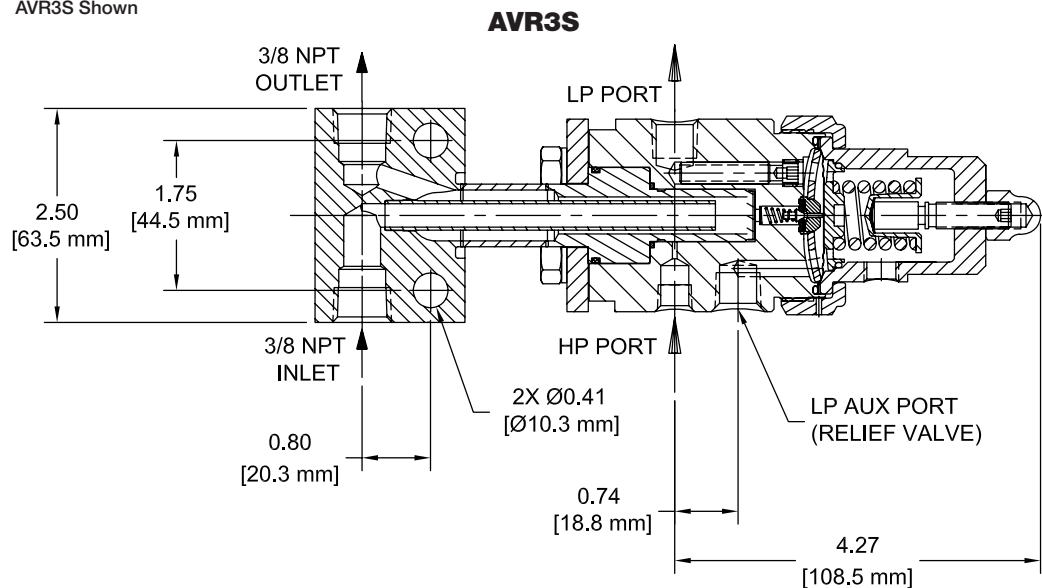


Porting Guide



Dimensional Drawing

AVR3S Shown



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

AVR3 Series

Ordering Information

Build an AVR3 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
 Green *Italic* = Express Service Program (ESP)

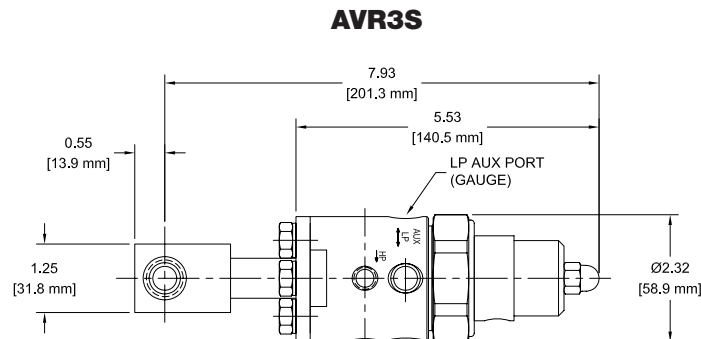
For an explanation of Ordering options please reference literature 25000275 at www.parker.com/veriflo

Sample: **AVR3** **S** **K** **1** **X** **3PG**
 Finished Order: **AVR3SK1X3PG**

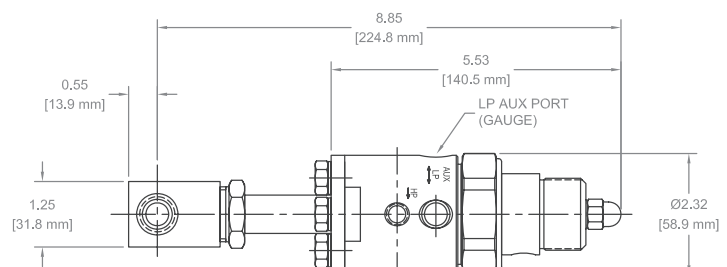
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|---|---|---|
| <p>1 Body Material
 <i>S = 316L Stainless Steel</i>
 <i>H = Hastelloy C-22®</i>
 <i>M = Monel®</i></p> | <p>3 Pressure Range
 0 = 0 - 10 psig (max inlet 250 psig)
 <i>1 = 1 - 30 psig</i>
 <i>2 = 2 - 60 psig</i>
 <i>3 = 3 - 100 psig</i>
 4 = 10 - 250 psig
 5 = 20 - 500 psig</p> | <p>5 Porting Configuration
 See Notes below.
 <i>blank = 2 Port</i>
 <i>3PG = 3 Port Relief Valve or Gauge Port</i>
 <i>4PV = 4 Port Relief Valve and Gauge Port</i>
 <i>2PL = 2 Port Reverse Entry</i>
 <i>3PLG = 3 Port Reverse Entry Relief Valve or Gauge Port</i>
 <i>4PL = 4 Port Reverse Entry Relief Valve and Gauge Port</i></p> |
| <p>2 Seat Material
 <i>K = PCTFE</i>
 <i>P = PEEK™</i>
 <i>V = Vespel®</i></p> | <p>4 Outlet Gauge
 <i>03 = 0 - 30 psig</i>
 <i>OL = 0 - 60 psig</i>
 <i>01 = 0 - 100 psig</i>
 4 = 0 - 400 psig
 6 = 0 - 600 psig
 <i>X = No Gauge</i></p> | <p>6 Optional Features
 <i>RV = Relief Valve</i></p> |

Additional configurations available upon request

Notes: Veriflo reserves the right to plug NPT ports. If a true ported body is required, please contact Customer Service.
 High pressure port standard is 1/8" NPT Female.
 1/4" NPT Female on auxiliary outlet ports.



AVR3H AND AVR3M



AVR3 Series

Specifications

Materials of Construction	
Wetted	
Body Options	316L Stainless Steel (std), Monel® or Hastelloy C-22®
Compression Member	Inconel® 625
Diaphragm	Hastelloy C-22®
Poppet	Hastelloy C-276®
Poppet Spring	Inconel® X750
Seat Options	PCTFE (std), PEEK™ or Vespel®
Carrier Options	316L Stainless Steel (std) or Hastelloy C-22®
Heater Seal	PEEK™
O-ring Back-up	FKM
Non-wetted	
Cap	303 Stainless Steel
Nut	316L Stainless Steel
Operating Conditions	
Maximum Inlet	3,500 psig (241 barg) or 250 psig (17.2 barg) for 10 psig range
Outlet Options	0-10 psig (0.7 barg), 1-30 psig (2 barg), 2-60 psig (4 barg), 3-100 psig (7 barg), 10-250 psig (17 barg), 20-500 psig (35 barg)
Temperature	<i>based upon seat option</i>
PCTFE	150°F (66°C)
PEEK™	275°F (135°C)
Vespel®	500°F (260°C)
Maximum Steam Supply	600 psig, 500°F (41 barg, 260°C)

Functional Performance	
Design	
Burst Pressure	10,500 psig (724 barg)
Proof Pressure	5,250 psig (362 barg)
Flow Capacity	C _v 0.06 Nominal
Leak Rate	
Internal	Bubble Tight
External	Bubble Tight
Internal Volume	
High Pressure Inlet	0.57 cc
Overall	4.6 cc
Approx. Weight	8 lbs. (2.0 kg)

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

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Vespel® is a registered trademark of DuPont Performance Elastomers L.L.C.

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