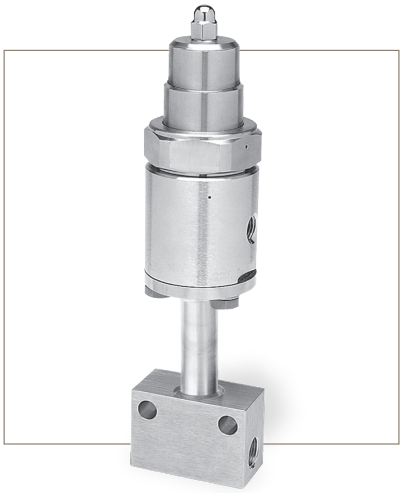
AVR3 Series

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 dissassemble the regulator and heat transfer components for complete cleaning and repair of the unit, thus reducing expensive replacement costs and down time.

Product Features:

- Ultra low internal volume
- Convoluted Hastelloy® C-22 diaphragm for superior strength and corrosion resistance provides outlet pressure stability with changes in flow
- Field-serviceable heat transfer element
- Integral diaphragm stop provides additional measure of safety

Specifications:

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
Leak Rate: External	Bubble Tight
Internal Volume	
High Pressure Inlet	0.57 cc
Overall	4.6 cc
Approximate Weight	8 lbs. (2.0 kg)

Operating Conditions	
Maximum Inlet	3,500 psig (241 barg) or 250 psig (17.2 bard) 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	Based upon seat option
PCTFE	150ºF (66ºC)
PEEK™	275ºF (135ºC)
Vespel®	500ºF (260ºC)
Maximum Steam Supply	600 psig, 500ºF (41barg, 260ºC)

Material of Construction	
Wetted	
Body Options	316L Stainless Steel (std) (Consult factory for alloyed body material availability
Compression Member	Inconel® 625
Diaphragm	Hastelloy® C-22
Poppet	Hastelloy® C-22
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 Backup	FKM
Non-Wetted	
Nut	316L Stainless Steel
Cap	303 Stainless Steel

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

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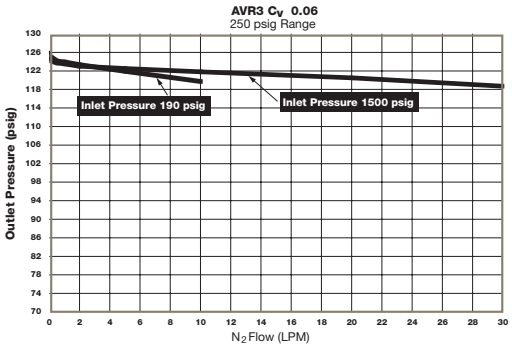
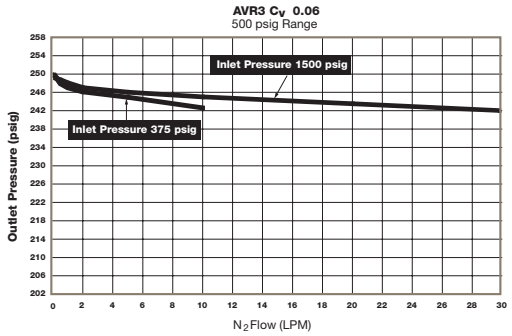
PEEK™ is a trademark of Victrex plc.
Inconel® and Monel® are registered trademarks of Special Metals Corporation.
Vespel® is a registered trademark of DuPont Performance Elastomers L.L.C.

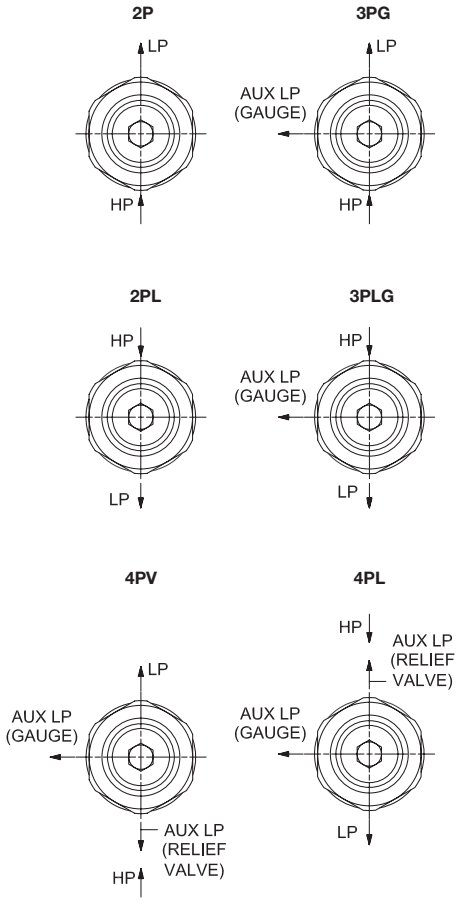
AVR3 Series

Flow Curve:

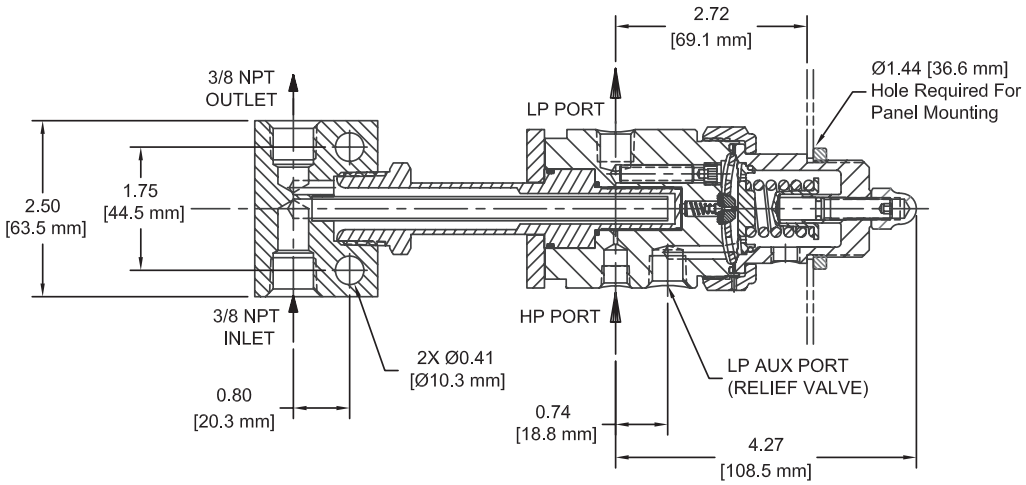




Porting Configurations:



Dimensional Drawing: (AVR3S shown)



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AVR3 Series

Ordering Information:

Building a Part Number: *Example:* AVR3SK1X3PG

Example Part Number:	AVR3	S	K	1	X	3PG
Ordering Parameters/Options:	Series	Body Material	Seat Material	Pressure Range	Outlet Gauge	Porting Configuration
Table Reference: (see below)	A	B	C	D	E	F

A - Series	
AVR3	AVR3 Series Pressure Regulator

B - Body Material	
S	316L Stainless Steel

C - Seat Material	
K	PCTFE
P	PEEK™
V	Vespel®

D - Pressure Range	
0	0-10 psig (Maximum inlet 250 psig)
1	1-30 psig
2	2-60 psig
3	3-100 psig
4	10-250 psig
5	20-500 psig

E - Outlet Gauge	
03	0-30 psig
OL	0-60 psig
01	0-100 psig
4	0-400 psig
6	0-600 psig
X	No Gauge

F - Porting Configuration	
Blank	2 Port
3PG	3 Port
4PV	4 Port
2PL	2 Port (Reverse Entry)
3PLG	3 Port
4PL	4 Port

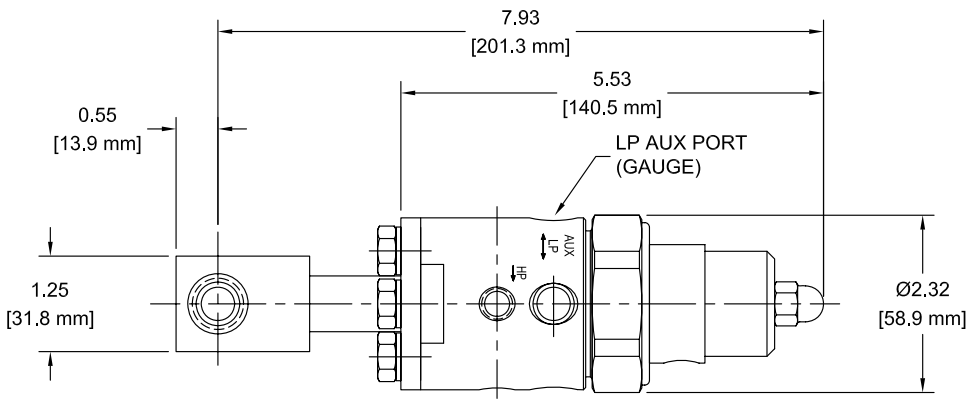
Additional configurations available upon request

Notes:

Parker IPD reserves the right to plug NPT ports.
High pressure port standard is 1/8" NPT Female.
1/4" NPT Female on auxillary outlet ports.

Parker Instrumentation Products Division reserves the right to plug NPT ports

AVR3S



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WARNING

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Literature #: 25000138 September 2018

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