

AVR4 Series

Electrically Heated, Vaporizing Pressure Regulator

Pressure Reducing • Stainless Steel



Value Proposition:

The Parker AVR4 Series regulator is engineered to heat and/or vaporize a gas or liquid sample before entering an analyzer system. Its unique design allows users to disassemble the regulator and heat transfer components for complete cleaning and repair of the unit, thus reducing expensive replacement costs and downtime.

Product Features:

- Ultra low internal volume
- CSA, CE-ATEX certified
- Convoluted Hastelloy® C-22 diaphragm for superior strength and corrosion resistance provides outlet pressure stability with changes in flow
- Field-serviceable heat transfer element
- TCO (Thermal cut-out) is standard for all heat ranges
- Integral diaphragm stop provides additional measure of safety valves / 250 psig for manual and AOPLPNC valves

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	3.29 cc
High Pressure Inlet	0.57 cc
Overall	4.6 cc
Approximate Weight	8 lbs. (2.0 kg)

Electrical Conditions	
Power Requirements	120V or 240V, 50/60 Hz
Heater Wattage	40,100,150 or 200 watt
Temperature Controller (Proportional)	75°F to 220°F or 215°F to 380°F (24°C to 105°C or 102°C to 194°C) Ranges are Approximate
Condulet	Crouse Hinds, UL and CSA listed Class 1, Groups A, B, C, D Class 2, Groups E, F, G

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

Hastelloy® C-22 and Hastelloy® C-276 are registered trademarks of Haynes International, Inc.
PEEK™ is a trademark of Victrex plc.
Inconel® and Monel® are registered trademarks of Special Metals Corporation.
Vespe® is a registered trademark of DuPont Performance Elastomers L.L.C.
SilcoNert™ 1000 is a trademark of SilcoTek Corporation.

Operating Conditions	
Operating Pressure	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	Based upon seat option
PCTFE	150°F (66°C)
PEEK™	275°F (135°C)
Vespe®	500°F (260°C)
Ambient Temperature	-4°F to 104°F (-20°C to 40°C)

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 Vespe®
Carrier Options	316L Stainless Steel (std) or Hastelloy® C-22
Heater Seal	PEEK™
O-ring Backup	FKM
Non-Wetted	
Nut	303 Stainless Steel
Cap	17-4 PH
Condulet	Cast iron Alloy and Aluminum

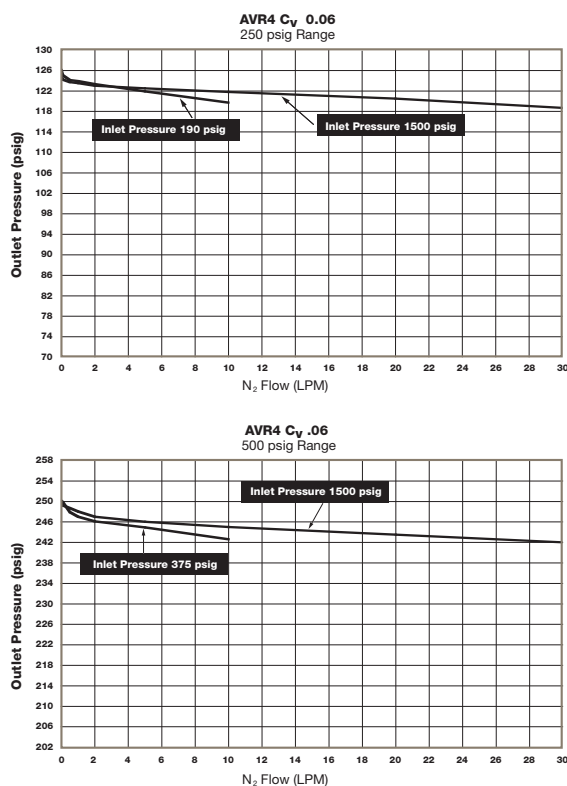


INSTRUMENTATION PRODUCTS DIVISION

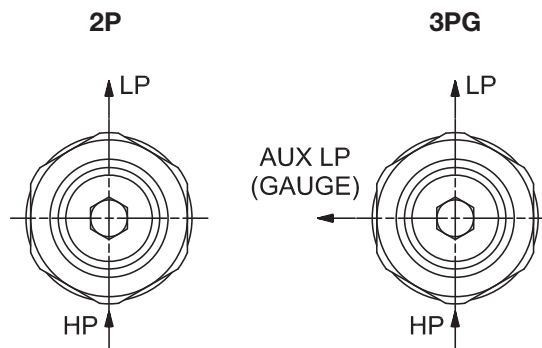
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AVR4 Series

Flow Curve:



Porting Configurations:



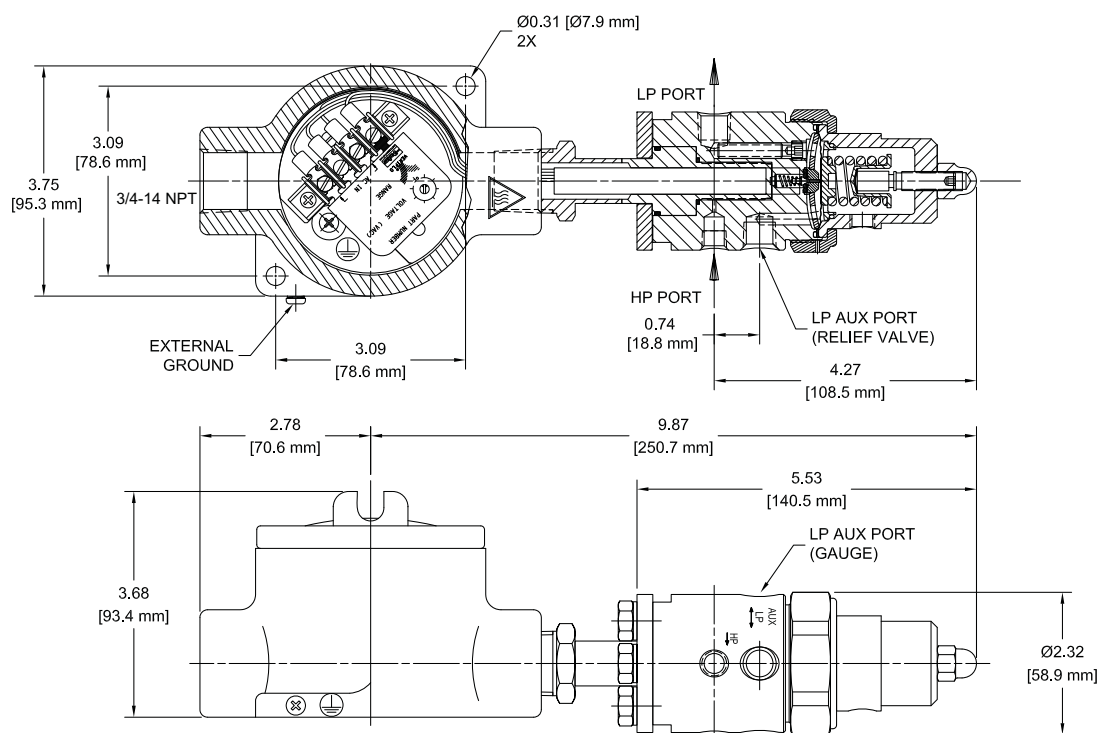
ATEX Related Drawing:

Revision Control Per 54099313

Reference: ATEX Schedule Drawing 54013150

Reference: CSA File # LR99181

Dimensional Drawing:



AVR4 Series

Ordering Information:

Building a Part Number: *Example: AVR4SK1120DLX3PG*

Example Part Number:	AVR4	S	K	1	120	D	L	X	3PG	
Ordering Parameters/Options:	Series	Body Material	Seat Material	Pressure Range	Voltage	Heater Wattage	Temperature Controller	Outlet Gauge	Porting Configuration	Optional Features
Table Reference: (see below)	A	B	C	D	E	F	G	H	I	J

A - Series

AVR4	AVR4 Series Pressure Regulator
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B - Body Material

S	316L Stainless Steel
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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 - Voltage

120	120V
240	240V

F - Heater Wattage

D	150
E	200

G - Temperature Controller

L	75°F to 200°F (24°C to 104°C)
H	200°F to 380°F (104°C to 193°C) - (Only available in 120V)

H - 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

I - Porting Configuration

Blank	2 Port
3PG	3 Port High pressure port standard is 1/8" NPT Female. 1/4" NPT Female on auxiliary outlet ports.

J - Optional Features

RTK	SilcoNert™ 1000 Coating in wetted metallic components only. Does not include gauges or relief valves
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Parker Instrumentation Products Division reserves the right to plug NPT ports

Product Certifications

North American Certification	 CLASS I GROUPS A,B,C & D LR99181
European Union Certification	 0344 Ex db IIC T3 KEMA 03ATEX2359

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WARNING

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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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