

# 180 SERIES

SINGLE STAGE REGULATORS

## Features

A compact, lightweight, high purity, single stage, pressure reducing regulator suitable for specialty, flammable, and industrial gasses.

Our 316L stainless steel diaphragm ensures gas purity and integrity.



## Applications

- ✓ Laboratories
- ✓ Medical
- ✓ Pharmaceutical
- ✓ Specialty gases

- ✓ Process analysers
- ✓ Petrochemical
- ✓ Metal fabrication
- ✓ Food and beverage

# Specifications

## Operating Parameters

Pressure rating per criteria of CGA E- 4; ASME B31; ASME BPVC

## Maximum Inlet Pressure

6000 psig / 415 Bar

## Maximum Outlet Pressure

2, 10, 25, 50, 100, 250, 500, psig  
70, 175, 345, 690, 1725, 3450, kPa  
0.7, 2, 4, 7, 20, 35, Bar

## Design Proof Pressure

150% of rated pressure

## Leakage

Internal: Bubble tight  
External: Designed to meet  $< 2 \times 10^{-8}$  atm/cc He

## Operating Temperature

40°F to 185°F / -40°C to 85°C

## Flow Capacity

0.03, 0.07, 0.24, 0.3, 0.35, 0.58

## Wetted Materials Body

Electrolysis Nickel Plated Brass, 316L Stainless Steel or Monel

## Seat

Tefzel, Peek, PCTFE [standard], Vespel

## Filter

10 micron 316L Stainless Steel

## Seal

Teflon, Viton

## Diaphragm

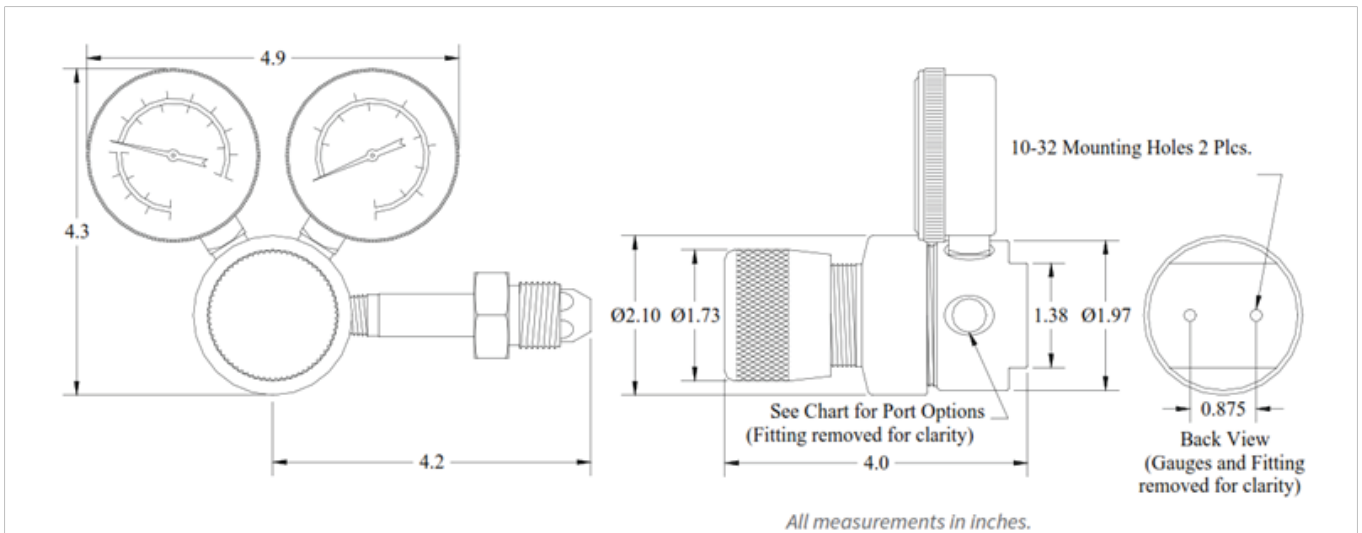
316L Stainless Steel with Teflon Sealing Ring

## Spring Housing

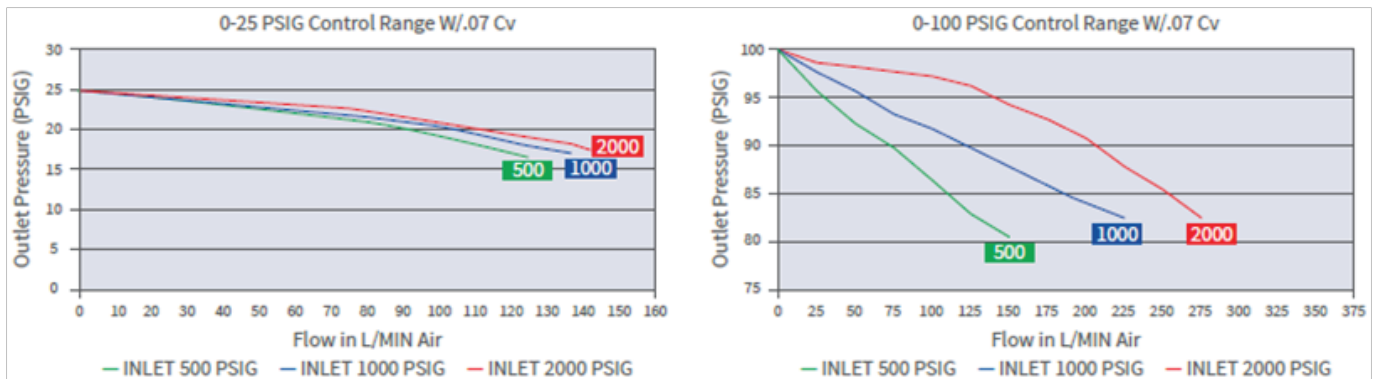
316L Stainless Steel, Electrolysis Nickel Plated Aluminium, Black Anodized Aluminium

## Remaining Parts

Inconel



# Performance Curves



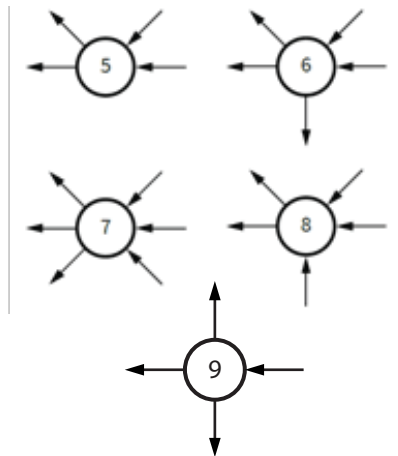
# Ordering Information

With a wide variety of body materials, porting options and inlet connections, regulators can be custom built to meet your specific requirements.

180	-	2	2	R5	B	1
Series	-	Body Material	Outlet Range	Porting	Connection	Gauges
180		1-Electroless Nickel	0 - 2 PSI	Add L or R	A - 1/8 "	1 - with gauges
		Plate Brass	1 - 10 PSI	to define	B - 1/4 "	2 - no gauges
		2-316L SS	2 - 25 PSI	inlet side	C - 3/8 "	
		3-Monel	3 - 50 PSI	( Left or Right)		
		4 Brass	4 - 100 PSI	followed by		
			5 - 250 PSI	configuration		
			6 - 500 PSI	in Chart A		

## Standard Porting Configuration

(Chart A)



Longer delivery time for L5, L6 & L8.

-	2	A	F	1	-	330
-	Cv	Diaphragm	Seat	Cap	-	Inlet Connection
1 - 0.03	A-316L SS	F - PCTFE	A - ENP AI	With	Insert 3 digit	
2 - 0.07	w/Teflon	[ standard]	B - 316L SS	Acorn	portion of CGA	
3 - 0.24		K - Peek	C - Anod A1	Nut	number or 2	
4 - 0.30	B - 316LSS	P - Vespel	D - ENP A1 PM		digits from	
6 - 0.35	w/Teflon Shield	Z - Tefzel	E - 316L SS PM		AS2473.2.	
7 - 0.58			F - Anod A1 PM			
			1 - ENP AI	With		
			2 - 316L SS	Knob		
			3 - Anod A1			
			4 - ENP A1 PM			
			5 - 316L SS PM			
			6 - Anod A1 PM			

## Pressure and Temperature Rating for Seats

Code	Material	Pressure in PSI Minimum	Pressure in PSI Maximum	Temperature Maximum
F	PCTFE	10	3600	150°F
Z	TEFZEL	10	2400	150°F
K	PEEK	50	6000	150°F
K	PEEK	50	3600	500°F
P	VESPEL	25	6000	150°F
P	VESPEL	25	3600	500°F

## Special Options

04	Relief Valve (<150 psi)
15	Outlet Valve - packed
16	Outlet Valve - packless
71	Fine Adjust
73	Helium Leak Test
74	Liquid Service Filter
75	Relief Valve (150 psi +)