

# Heavy Duty Gas Line Regulator 1780 Series

## Application

The 1780 Series Regulators are designed for final line pressure regulation on gas distribution systems. They are suitable for a variety of gases in medical or industrial applications. The 1780 Series Regulators have a balanced seat, are constructed with oxygen compatible materials, and have the same valve design, brass body, and internal parts as the premium BR-1780 Series. Flow performance is equal to the BR-1780 Series. Compatible with oxygen, nitrogen, argon, hydrogen, helium, CO<sub>2</sub>, and LNG.

## Features

- Maintains a steady downstream pressure across a range of inlet pressures commonly provided by a cryogenic bulk tank
- Large seat and diaphragm areas provide high capacity with sensitive control of delivery pressure with low falloff
- Two ¼" FNPT delivery pressure gauge ports are located (plugged) on each side of the valve
- Two bonnet drain/vent holes to allow for different mounting orientation
- T-handle adjusting screw
- Maximum inlet pressure is 500 psig (34.5 barg)
- Available in four delivery pressure ranges (A-D)
- Temperature range: -40° F to +165° F. (-40°C to +74°C)
- Cleaned per CGA G-4.1 for oxygen service
- 100% Factory Tested

## Materials

Body ..... Forged Brass  
 Bonnet ..... Nickel Plated Aluminum  
 Diaphragm ..... Nitrile with PTFE liner  
 Springs and Fasteners ..... Stainless Steel  
 Other valve parts ..... Brass  
 Seat Disc & O-Rings ..... Viton is standard

**For Carbon Dioxide or Nitrous Oxide service: Specify EPDM material for seat disc and O-rings, add "E" to end of part number.**

## Ordering Information

Part Number	Delivery Pressure Range	Pressure Gauge*		Inlet & Outlet (F.N.P.T.)		Dimensions								Cv (Kv)
		Range (psig)	P/N			"A"		"B"		"C"		"D"		
				Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	
1784A	5-55 psig (0.3-3.8 barg)	1-100	1286	½"	22	2.82"	1.28	3.62"	1.64	1.38"	.62	5.47"	2.5	3.1 (2.68)
1784B	40-110 psig (2.8-7.6 barg)	1-200	S1679											
1784C	100-200 psig (6.9-13.8 barg)	1-400	15578											
1784D	175-300 psig (12.1-20.7 barg)													
1786A	5-55 psig (0.3-3.8 barg)	1-100	1286	¾"	34	3.31"	1.50	4.69"	2.12	1.60"	.72	6.84"	3.1	4.8 (4.15)
1786B	40-110 psig (2.8-7.6 barg)	1-200	S1679											
1786C	100-200 psig (6.9-13.8 barg)	1-400	15578											
1786D	175-275 psig (12.1-19.0 barg)													
1788A	5-55 psig (0.3-3.8 barg)	1-100	1286	1"	45	3.31"	1.50	4.69"	2.12	1.60"	.72	6.84"	3.1	5.5 (4.75)
1788B	40-110 psig (2.8-7.6 barg)	1-200	S1679											
1788C	100-200 psig (6.9-13.8 barg)	1-400	15578											
1788D	175-275 psig (12.1-19.0 barg)													

\*Regulator sold without gauge. Order gauge separately.



1780 Series

