# 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.

### **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 for Oxygen service per CGA G-4.1
- · 100% Factory Tested

#### **Materials**

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

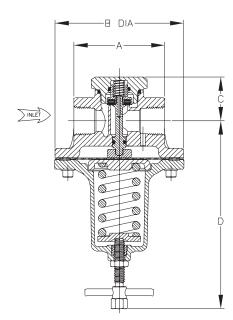
For Carbon Dioxide or Nitrous Oxide service: Specify EPDM material for seat disc and O-rings, add "E" to end of part number.











# **Ordering Information**

| Part   |                               | Pressure Gauge* |             | Inlet and Outlet | t Dimensions |       |       |       |     |     |     |
|--------|-------------------------------|-----------------|-------------|------------------|--------------|-------|-------|-------|-----|-----|-----|
| Number | Delivery Pressure Range       | Range (psig)    | P/N         | (FNPT.)          | "A"          | "B"   | "C"   | "D"   | Cv  |     |     |
| 1784A  | 5-55 psig (0.3-3.8 barg)      | 1-100           | 1286        |                  |              |       |       |       |     |     |     |
| 1784B  | 40-110 psig (2.8-7.6 barg)    | 1-200           | S1679       |                  |              |       |       |       |     |     |     |
| 1784C  | 100-200 psig (6.9-13.8 barg)  | 1-400           | 45570       | 1/2"             | 2.82"        | 3.62" | 1.38" | 5.47" | 3.1 |     |     |
| 1784D  | 175-300 psig (12.1-20.7 barg) |                 | 1-400 15578 | 15578            |              |       |       |       |     |     |     |
| 1786A  | 5-55 psig (0.3-3.8 barg)      | 1-100           | 1286        |                  |              |       |       |       |     |     |     |
| 1786B  | 40-110 psig (2.8-7.6 barg)    | 1-200           | S1679       |                  |              |       |       |       |     |     |     |
| 1786C  | 100-200 psig (6.9-13.8 barg)  | 1-400           | 1-400 15578 | 15570            | 3/4"         |       |       |       |     | 4.8 |     |
| 1786D  | 175-275 psig (12.1-19.0 barg) |                 |             | 15576            |              |       |       |       |     |     |     |
| 1788A  | 5-55 psig (0.3-3.8 barg)      | 1-100           | 1286        |                  | 3.31"        | 4.69" | 1.60" | 6.84" |     |     |     |
| 1788B  | 40-110 psig (2.8-7.6 barg)    | 1-200           | S1679       |                  |              |       |       |       |     |     |     |
| 1788C  | 100-200 psig (6.9-13.8 barg)  | 1-400           | 1 400       | 1 400            | 00 15578     | 1"    |       |       |     |     | 5.5 |
| 1788D  | 175-275 psig (12.1-19.0 barg) |                 | 15576       |                  |              |       |       |       |     |     |     |

<sup>\*</sup>Regulator sold without gauge. Order gauge separately.