

# BACK PRESSURE REGULATORS

Back Bias Pressure Regulator

44-4000



## Features

- High flow: Cv = .7 or 2.0 (optional)
- Piston sensed
- Adjustable bias pressure ranges available
- Self-venting (captured)
- Compatible with Tescom's Air Actuators and ER3000 Electropneumatic PID Controllers

## Specifications

| Operating Parameters                            |   |
|---|---|
| Pressure rating per criteria of ANSI/ASME B31.3 |   |
| Maximum Rated Inlet Pressure                    | 6000 PSIG   |
| Outlet Pressure Ranges                          | 50-1500 PSIG  |
| Design Proof Pressure                           | 150% Maximum Operating  |
| Leakage   | Bubble-tight  |
| Operating Temperature <sup>1</sup>              | 0° F to +165° F (-17° C to +74° C)                                |
| Flow Capacity                                   | Main Valve Cv = .70<br>(Cv = 2.0 optional)<br>Vent Valve Cv = .35 |

For extended temperatures from -40°F to +400°F, consult Amron International

## Media Contact Materials

|                 |  |
|-----------------|--|
| Body            | 303 SST, 316 SST, Brass, Chrome Plated Brass |
| Main valve seat | CTFE, Vespel®                                |
| O-ring          | Viton®, E.P., Kalrez®                        |
| Gasket          | CTFE, Vespel®                                |
| Back-up ring    | Teflon®                                      |
| Trim            | 300 Series SST, 17-4 PH SST, Brass           |

For other materials and modifications, please consult Amron

Cleaning CGA 4.1 and ASTM G93

Weight 8 lbs (3.62 kg)

Pressure Conversion 14.5 PSIG = 1 bar  
145 PSIG = 1 MPa

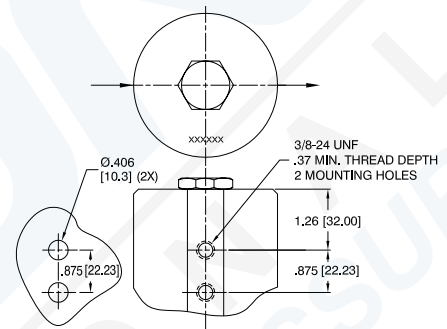
## Accessories

| Part No.        | Standard Repair Kit | Soft Goods Kit |
|-----------------|---------------------|----------------|
| 44-4092-E28     | 389-2623            | 38-4000-44     |
| 44-4013E28      | 389-2623            | 38-4000-44     |
| 44-4012-E28     | 389-2623            | 38-4000-44     |
| 44-4013E212     | 389-2623            | 38-4000-44     |
| 44-4012E28      | 389-2623            | 38-4000-44     |
| 44-4012-E28-002 | 389-2685            |                |

The Tescom 44-4000 Series is a piston sensed, dome loaded, positive biased, differential pressure regulator. The positive bias provides a constant outlet pressure from 0-350 psig (24 bar) greater than reference pressure.

The outlet pressure can be vented through the regulator allowing downstream regulation even with a decreasing reference pressure. The 44-4000 provides a positive, bubble tight shutoff at the main valve and vent valve.

A segregated vent allows the outlet pressure to be vented separately and eliminates mixing media with the reference pressure zone.



PANEL MOUNTING DIMENSIONS

All dimensions are reference and nominal. Metric (millimeter) equivalent are in brackets. Outlet pressure equals bias spring setting plus reference pressure

Bell referenced, mounted either internal or external

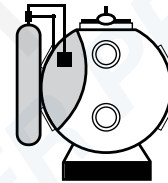


Diagram illustrates first stage reduction of breathing gases, external to the bell for tethered divers.

## Part No.

44-40 1 9 E 2 12 - (Mod)

|                              |                       |                             |                                       |
|------------------------------|-----------------------|-----------------------------|---------------------------------------|
| <b>Basic Series</b>          | 44 - 40               | <b>Modification Options</b> | 002 Cv = 2.0                          |
| <b>Body Material</b>         | 1 Brass               | 014 Air ratio, self-venting | 015 Air ratio, self-venting, Cv = 2.0 |
|                              | 2 303 SST             | <b>In and Out Port Size</b> |                                       |
|                              | 6 316 SST             | 8 1/2 in.                   | 12 3/4 in. (NPT only)                 |
|                              | 9 Chrome Plated Brass | <b>In and Out Port Type</b> |                                       |
| <b>Maximum Bias Pressure</b> | 1 100 PSIG            | 0 BSP                       | 1 SAE                                 |
|                              | 2 200 PSIG            | 2 NPT                       | 3 MS33649                             |
|                              | 3 350 PSIG            |                             |                                       |
|                              | 4 120-150 PSIG (max)  |                             |                                       |
|                              | 9 0-15 PSIG           |                             |                                       |

| Soft Goods |         |         |         |                                  |
|------------|---------|---------|---------|----------------------------------|
|            | O-Ring  | Seat    | Gasket  | Temperature                      |
| E          | Viton®  | CTFE    | CTFE    | 0°F to +165°F (-17°C to +73°C)   |
| M          | E.P.    | CTFE    | CTFE    | -40°F to +165°F (-40°C to +73°C) |
| P          | Kalrez® | CTFE    | CTFE    | -40°F to +165°F (-40°C to +73°C) |
| V          | Viton®  | Vespel® | Vespel® | 0°F to +300°F (-17°C to +148°C)  |