

# EXB

## Back Pressure Regulator



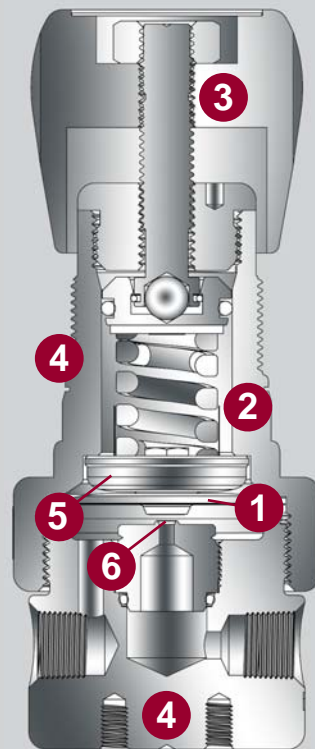
The AURA EXB back pressure regulator provides adjustable relief of excess pressure in closed loop systems caused by spikes in inlet pressure up to 500 psig. AURA's dual surface diaphragm or dynamic cartridge sensing elements increase the precision and flexibility of pressure control. This allows the end user to accurately throttle excess pressure from the system, whereas standard relief devices only provide open and close functions.

AURA's proprietary machining process yields surface finishes of 4-25 Ra designed to reduce corrosion. The AURA EXB is assembled in a Class 100 clean room as a complete assembly with all gauges, fittings, and valves attached. The complete assembly is cleaned for oxygen service and is 100% helium leak checked. Additionally, the EXB undergoes multiple flow and function tests to ensure the highest level of purity and durability.

Available with Dursan® LS inert and anti-corrosive technology that provides superior corrosive resistance versus exotic metals in highly acidic or caustic applications, the AURA EXB back pressure regulator is the choice for accurate and reliable excess pressure control.

### EXB Features

- 1. Dynamic cartridge or diaphragm sensing element**
  - Flexible solution for application
- 2. Field access to adjusting spring**
  - Change control range in field
- 3. Field access to adjusting screw**
  - Lock pressure setting
- 4. Threaded bonnets and rear mounting holes**
  - Able to panel or surface mount
- 5. Hi/Lo diaphragm stop**
  - Extends diaphragm life cycle
- 6. Multiple seat materials**
  - Ensures reliability by eliminating reaction with media



(Diaphragm model shown)



# EXB

## Back Pressure Regulator Technical Data and Product Specifications

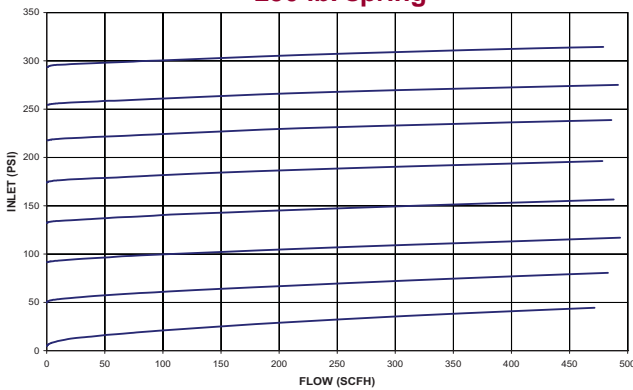
### Materials of Construction

	EXBS	EXBC	EXBG
Body	316L stainless steel	Chrome-plated brass	Dursan® LS
Bonnet	304 stainless steel	Chrome-plated brass	Dursan LS
Sensing Element	316L stainless steel	316L stainless steel	Dursan LS
Seat	Viton®, PTFE, PCTFE	Viton, PTFE, PCTFE	Viton, PTFE, PCTFE
Nozzle	316L stainless steel	Brass	Dursan LS
O-Ring Nozzle Seal	PTFE	PTFE	PTFE
Dynamic Cartridge O-Ring (Piston)	Viton	Viton	Viton

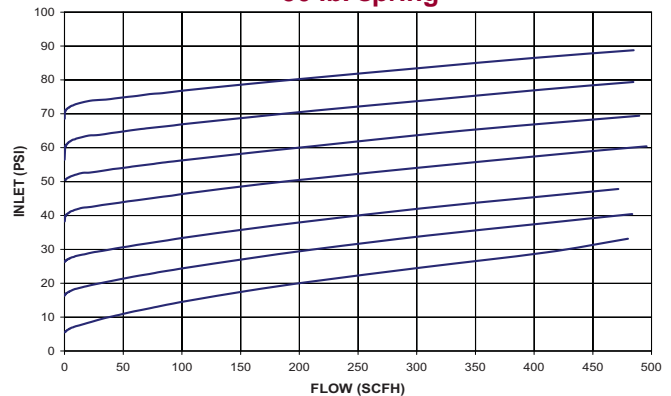
### Functional Specifications

<b>Maximum Inlet Pressure</b>	<ul style="list-style-type: none"> <li>Diaphragm (500 psig maximum inlet pressure)</li> <li>Dynamic Cartridge (650 psig maximum inlet pressure)</li> <li>Burst pressure: &gt; 4x Working pressure</li> </ul>	<b>Temperature</b>	<ul style="list-style-type: none"> <li>PTFE: -40°F to 140°F (-40°C to 60°C)</li> <li>PCTFE: -40°F to 150°F (-40°C to 66°C)</li> <li>Viton: -40°F to 140°F (-40°C to 60°C)</li> </ul>
<b>Leak Rate</b>	<ul style="list-style-type: none"> <li>External: 1x10<sup>-9</sup> He ccs (diaphragm model)</li> <li>External: 1x10<sup>-7</sup> He ccs (piston model)</li> <li>Seat: 1x10<sup>-7</sup> He ccs</li> </ul>	<b>Weight (bare body)</b>	• 2 lbs. 5.5 oz. (1.06 kg)
<b>Flow Coefficient (Cv)</b>	• 0.17	<b>Gauges (optional)</b>	• 2" manufactured to ANSI/ASME B40.1

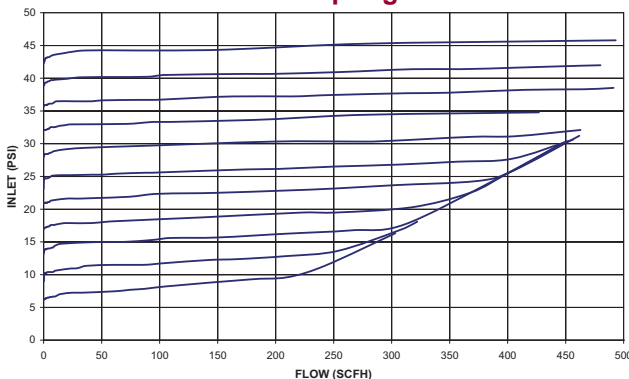
**EXB Regulator, PCTFE, diaphragm,  
250 lb. spring**



**EXB Regulator, Viton, diaphragm,  
50 lb. spring**



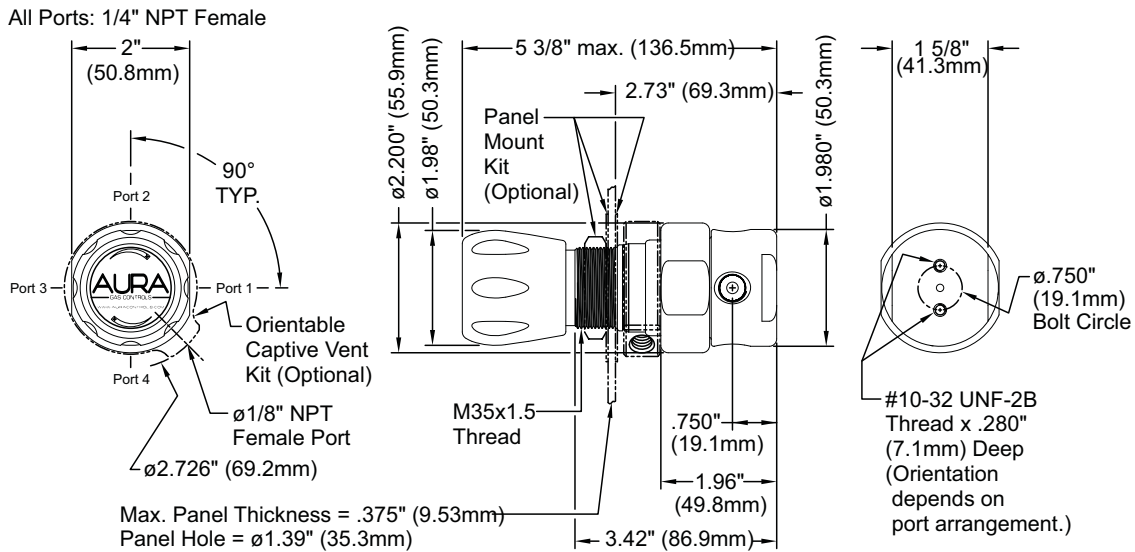
**EXB Regulator, Viton, dynamic cartridge,  
15 lb. spring**



#### Each EXB regulator assembly includes:

- Class 100 cleanroom assembly
- 100% helium leak check
- Cleaning for oxygen service
- 100% function test
- Silicone-free assembly
- Certificate of conformance
- Certificate of cleaning for oxygen service

## Mounting and Installing Information



## Ordering Information

EXB 4 5 6 7 8 -01- 13 14 15 - 16 17 0

### Digit 4 - Material of Construction

S = 316L stainless steel  
C = Chrome-plated brass  
G = Dursan LS inert and anti-corrosive technology

### Digit 5 - Pressure Range

1 = 0-15 psig  
2 = 0-50 psig  
3 = 0-100 psig  
4 = 0-250 psig  
5 = 0-500 psig

### Digit 6 - Gauges

0 = No Gauges  
1 = Inlet Gauge (psig/kPa)  
2 = Outlet Gauge (psig/kPa)  
5 = Inlet Gauge (BAR/psig)  
6 = Outlet Gauge (BAR/psig)

### Digit 7 - Sensing Element/Seat

1 = Dynamic Cartridge/Viton<sup>†</sup>  
2 = Dynamic Cartridge/PTFE<sup>††</sup>  
3 = Dynamic Cartridge/PCTFE<sup>†</sup>  
4 = 316L Diaphragm/Viton\*  
5 = 316L Diaphragm/PTFE\*  
6 = 316L Diaphragm/PCTFE\*

\*Not available for 500 psig pressure range

<sup>†</sup>Not available with EXBG

### Digit 8 - Assembly

See the EXB Port Configuration Table on the back of this brochure for choice of assembly.

### Digits 13-15 - Inlet Port

000 = None (1/4" female NPT)  
M06 = 6mm ss compression tube fitting  
TF2 = 1/8" ss compression tube fitting  
TF4 = 1/4" ss compression tube fitting  
TF6 = 3/8" ss compression tube fitting  
TF8 = 1/2" ss compression tube fitting

### Digit 16 - Valve Assembly

0 = No valve (ss, cp, Dursan LS)  
1 = Diaphragm valve (ss, cp, Dursan LS)

### Digit 17 - Outlet Fitting

0 = None (1/4" female NPT)  
1 = 1/4" male NPT fitting  
2 = 1/8" ss compression tube fitting  
3 = 1/4" ss compression tube fitting  
4 = 3/8" ss compression tube fitting  
5 = 1/2" ss compression tube fitting  
6 = 6mm ss compression tube fitting  
7 = 8mm ss compression tube fitting  
8 = 10mm ss compression tube fitting  
9 = 12mm ss compression tube fitting  
A = 3/8" BSP RH cp fitting  
B = 3/8" BSP LH cp fitting  
C = 1/8" cp compression tube fitting  
D = 1/4" cp compression tube fitting  
E = 3/8" cp compression tube fitting  
F = 1/2" cp compression tube fitting  
G = 6mm cp compression tube fitting  
H = 8mm cp compression tube fitting  
J = 10mm cp compression tube fitting  
K = 12mm cp compression tube fitting

### Accessories:

Panel mount kit  
EXPA0002-01-000-000

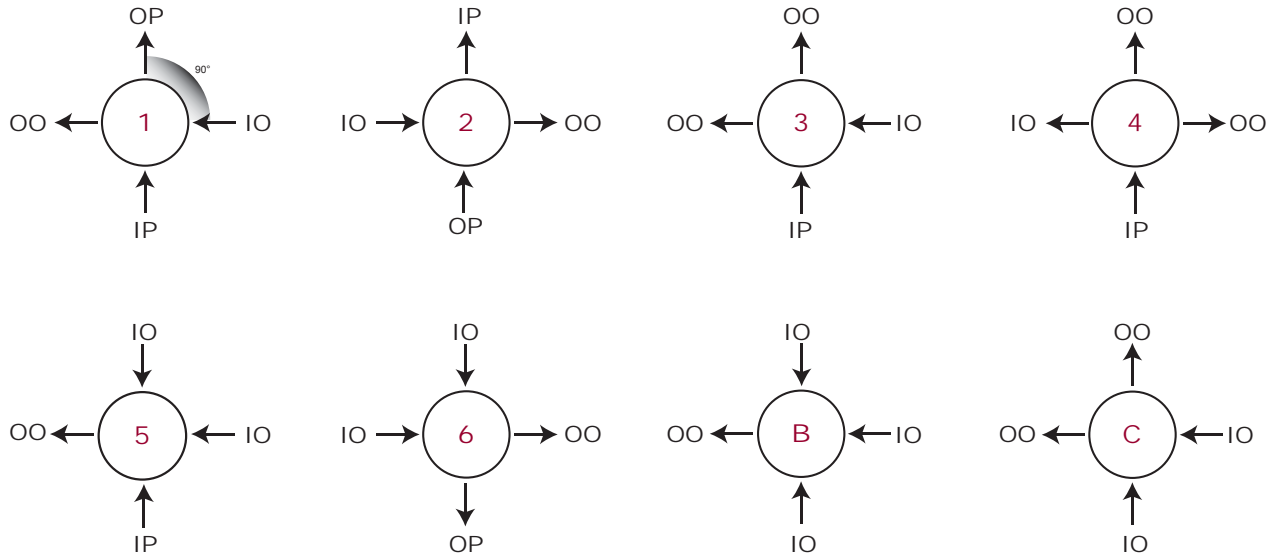
### Key:

ss = Stainless steel  
cp = Chrome-plated brass  
RH = Right hand  
LH = Left hand

**NOTE:** If you are unable to find a configuration specific to your application's needs, call AURA Gas Controls directly at 800.582.2565.

# EXB

## Back Pressure Regulator Port Configuration Table



**Key:**

- OO - Outlet Open
- OP - Outlet Plugged
- IO - Inlet Open
- IP - Inlet Plugged



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800.582.2565 • [www.AURACONTROLS.com](http://www.AURACONTROLS.com)  
Manufactured and Assembled in U.S.A • Registered ISO 9001  
Dursan® is a registered trademark of SilcoTek Corporation.  
Viton® is a registered trademark of E.I. DuPont de Nemours & Co.



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