

# EXZ

## Sub-Atmospheric Back Pressure Regulator



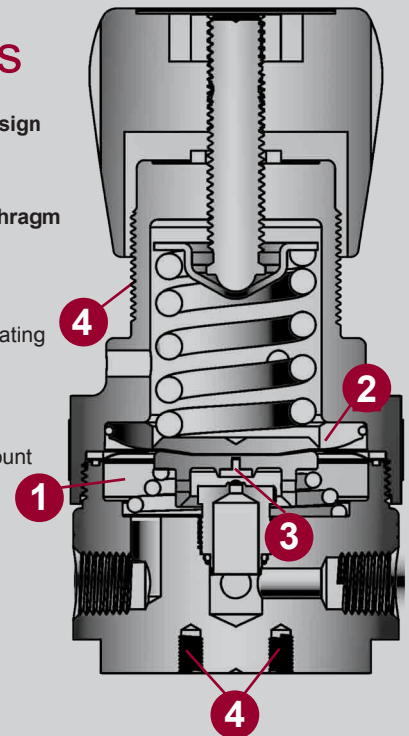
The AURA EXZ sub-atmospheric back-pressure regulator provides adjustable relief of excess positive pressure in systems operating under vacuum caused by pressure buildup or upstream sample injection. The proprietary hybrid spring design operates in conjunction with the EXZ's oversized dual-surface diaphragm to ensure the highest level of precision and repeatability. Multiple seat material options eliminate reaction with the media. This allows the user to accurately throttle excess positive pressure from the system to maintain optimal process conditions.

Each EXZ regulator is assembled in a Class 100 cleanroom as a complete assembly with all gauges, fittings, and valves attached. The completed assembly is 100% helium leak checked and cleaned for oxygen service. Additionally, the EXZ undergoes multiple flow and function tests to meet the harsh demands and rugged environments of any application worldwide.

The EXZ is available with Dursan® LS inert and anti-corrosive technology that provides superior corrosion resistance to exotic metals in highly acidic or caustic applications. The Dursan LS's inert surface also eliminates moisture and process media absorption, making the EXZ the ideal choice for accurate and reliable excess positive pressure control in sub-atmospheric applications.

## EXZ Features

- 1. Proprietary hybrid spring design**
  - Precision performance under vacuum
- 2. Oversized dual-surface diaphragm**
  - Maximum sensitivity and repeatability
- 3. Multiple seat materials**
  - Ensures reliability by eliminating reaction with media
- 4. Threaded bonnets and rear mounting holes**
  - Able to panel or surface mount



# EXZ Sub-Atmospheric Back Pressure Regulator

## Technical Data and Product Specifications

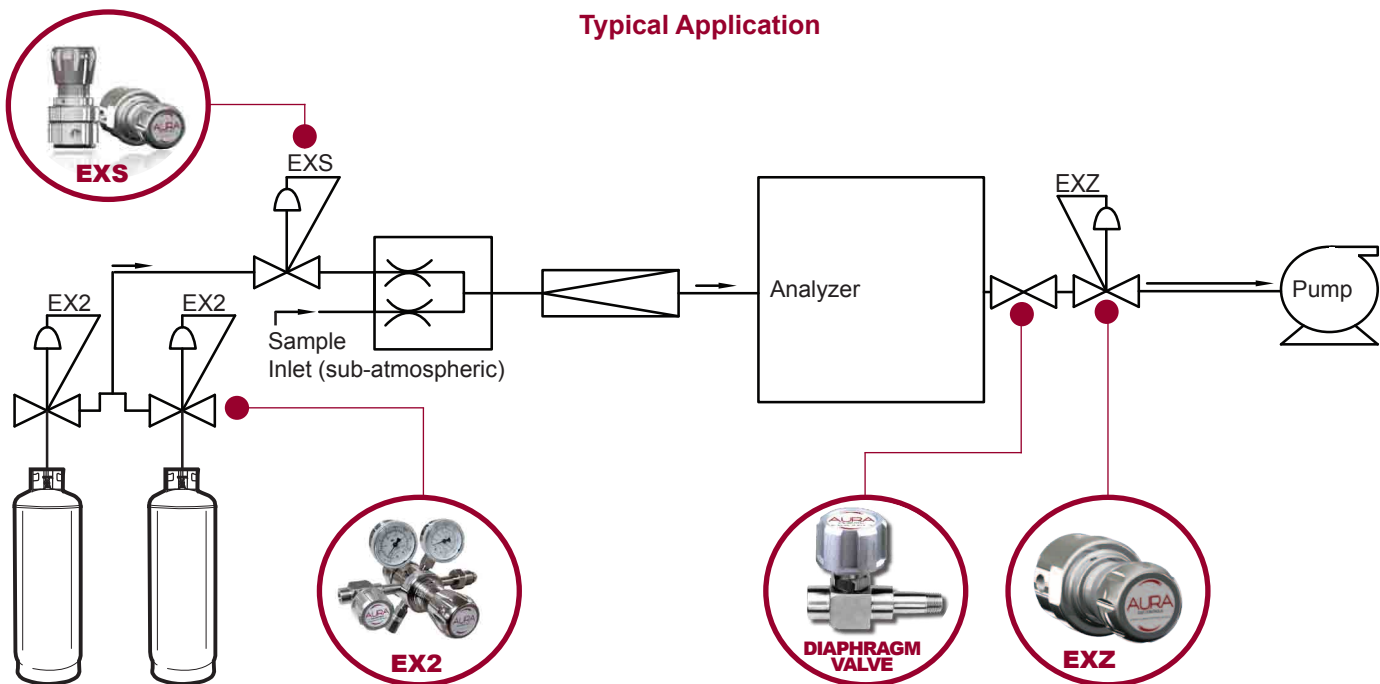
### Materials of Construction

	EXZS	EXZG
Body	316L stainless steel	Dursan® LS
Bonnet	304 stainless steel	Dursan LS
Sensing Element	316L stainless steel	Dursan LS
Seat	Viton, PTFE	Viton, PTFE
Nozzle	316L stainless steel	Dursan LS
Hybrid Spring	Electro-less nickel-plated	Electro-less nickel-plated
O-Ring Seal	PTFE	PTFE

### Functional Specifications

<b>Design Pressure</b>	<ul style="list-style-type: none"> <li>Working pressure: 15 psig PTFE/Viton®</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>Viton: -40°F to 140°F (-40°C to 60°C)</li> </ul>
<b>Maximum Inlet Pressure</b>	<ul style="list-style-type: none"> <li>15 psig (30 psia)</li> </ul>	<b>Weight (bare body)</b>	<ul style="list-style-type: none"> <li>4 lbs (2.18 kg)</li> </ul>
<b>Leak Rate</b>	<ul style="list-style-type: none"> <li>External: <math>1 \times 10^{-7}</math> He ccs</li> <li>Seat: <math>1 \times 10^{-7}</math> He ccs</li> </ul>	<b>Gauges (optional)</b>	<ul style="list-style-type: none"> <li>2" manufactured to ANSI/ASME B40.1</li> </ul>

### Typical Application

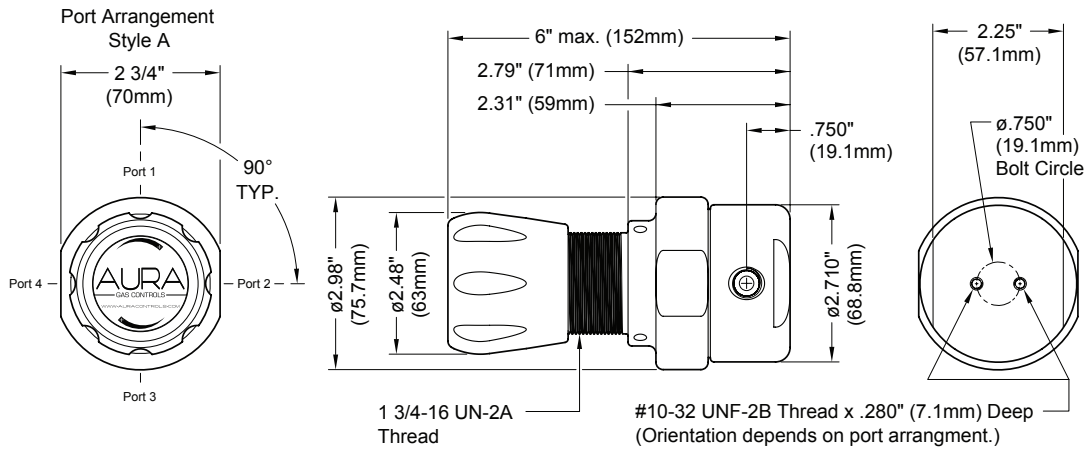


Sub-atmospheric back pressure regulators allow the end-user to precisely and consistently throttle excess positive pressure from systems operating below atmospheric levels. In a typical application, a sample is drawn out of the process line at sub-atmospheric levels for analysis; however, the zero and span gas cylinders introduce positive pressure into the system during calibration cycles. The EXZ sub-atmospheric back-pressure regulator will alleviate any spikes in system pressure caused by buildup or upstream sample injection during analysis and calibration. To introduce calibration gas, the EX2 dual-stage regulator controls the inlet pressure from the gas cylinders while the EXS sub-atmospheric regulator reduces the gas pressure down to sub-atmospheric levels.

#### Each EXZ 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

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

**Digit 4 - Material of Construction**

S = 316L stainless steel  
G = Dursan LS inert and anti-corrosive technology

**Digit 5 - Control Pressure Range**

1 = 0-30 psia

**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 = Viton seat  
2 = PTFE seat

**Digit 8 - Assembly**

See the EXZ 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  
M08 = 8mm ss compression tube fitting  
M10 = 10mm ss compression tube fitting  
M12 = 12mm ss compression tube fitting  
TF2 = 3/8" ss compression tube fitting  
TF4 = 1/4" ss compression tube fitting  
TF6 = 1/8" ss compression tube fitting  
TF8 = 1/2" ss compression tube fitting

**Digit 16 - Valve Assembly**

0 = No valve  
1 = Diaphragm valve  
2 = Needle valve

**Digit 17 - Outlet Fitting**

0 = None  
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

**Accessories:**

Panel mount kit  
EXPA0002-01-000-000

**Key:**

ss = Stainless steel

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



1501 Harpers Road, Virginia Beach, Virginia 23454

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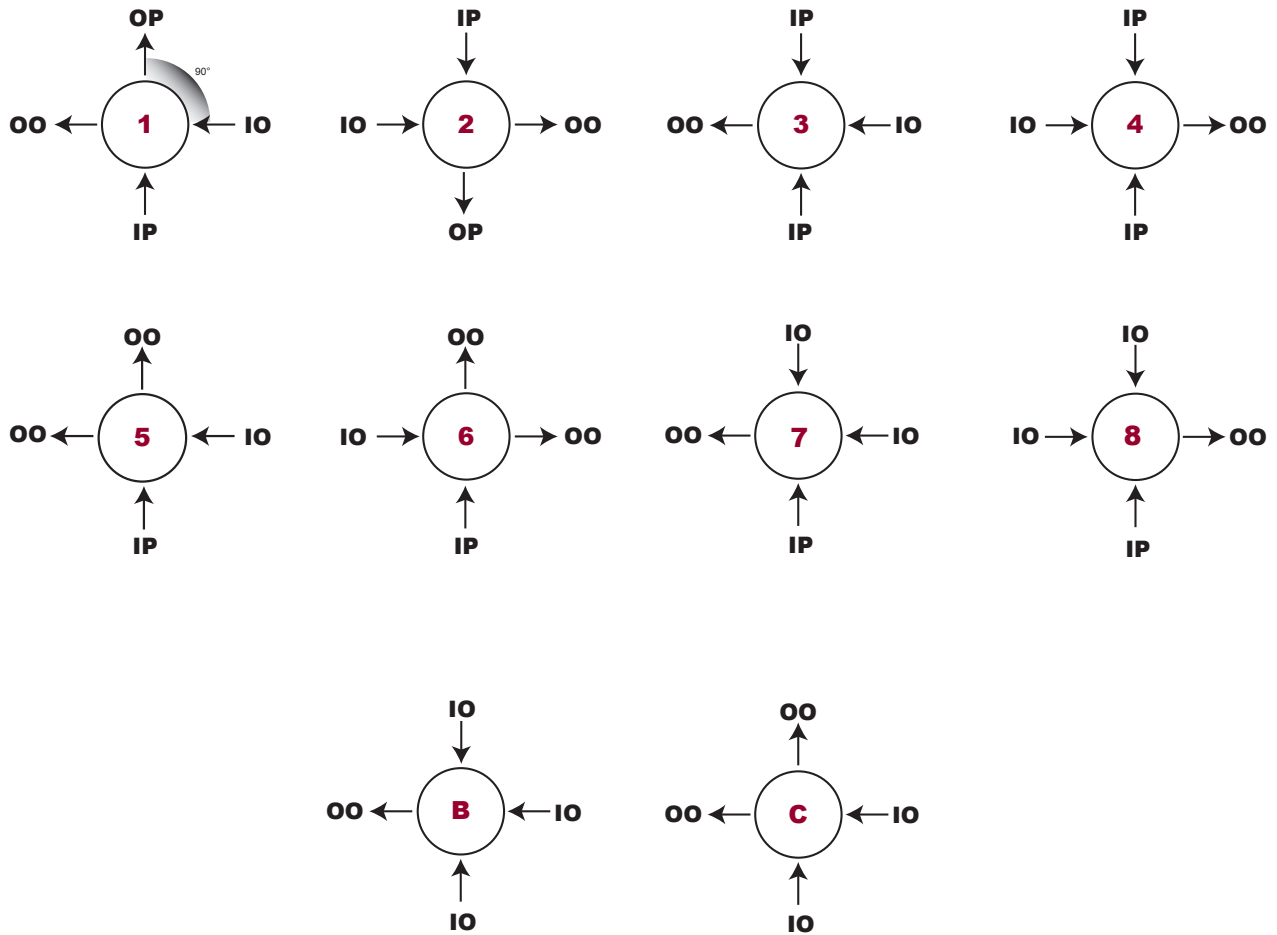
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Registered ISO 9001



# EXZ

## Sub-Atmospheric Back Pressure Regulator Port Configuration Table



**Key:**

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



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