

# EXF

## High-Flow Single Stage Pressure Reducing Regulator



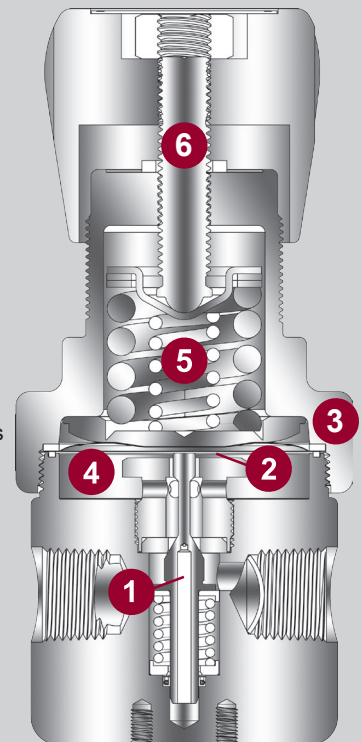
The AURA EXF is designed to provide primary control of high flow gases and liquids at delivery pressures up to 250 psig. The EXF's balanced stem seat design enables the use of larger orifices and seat sizes to accommodate higher flow rates. In addition, it eliminates the need for spring assisted shutoff of the inlet stream so fluctuations in outlet pressure are minimized. AURA's dual surface diaphragm also provides sensitive pressure control even at low pressures while the EXF's large .8 orifice size and 1/2" process ports allow for maximum flow.

AURA's proprietary machining process yields surface finishes of 4-25 Ra designed to reduce corrosion. With its minimal internal volume, the EXF also allows less gas to be used while purging. Each EXF regulator is assembled in a Class 100 clean room as a complete assembly with all gauges, valves, and fittings attached. The complete assembly is 100% helium leak checked and cleaned for oxygen service. Additionally, the EXF undergoes multiple flow and function tests to meet the harsh demands and rugged environment of any application worldwide.

For highly acidic or caustic applications, AURA's Dursan™ LS inert and anti-corrosive technology provides exceptional corrosion resistance and performance as a superior choice versus exotic metals or passivated surfaces. Combined with AURA's balanced stem seat design, the EXF provides the functionality and flexibility that engineers depend upon for high flow applications.

### EXF Features

- 1. Balanced stem seat**
  - Steady pressure control
- 2. Dual surface diaphragm**
  - Extremely sensitive even at lower temperatures
- 3. 4-25 Ra surface finish**
  - Minimizes corrosion
- 4. Low internal volume**
  - Minimal dead volume
- 5. Field access to adjusting spring**
  - Change delivery pressure ranges in the field
- 6. Field access to adjusting screw**
  - Lock pressure setting



# EXF High-Flow Single Stage Pressure Reducing Regulator

## Technical Data and Product Specifications

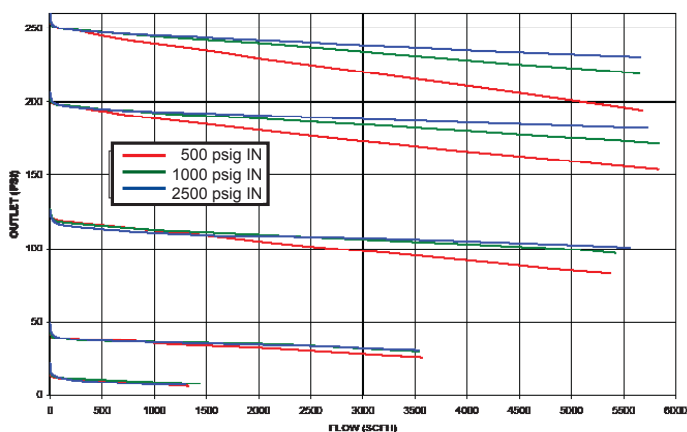
### Materials of Construction

	EXFS	EXFN	EXFC	EXFG
<b>Body</b>	316L stainless steel	Nickel-plated brass	Chrome-plated brass	Dursan™LS
<b>Bonnet</b>	304 stainless steel	Nickel-plated brass	Chrome-plated brass	Dursan LS
<b>Seat</b>	PCTFE	PCTFE	PCTFE	PCTFE
<b>Pin</b>	316L stainless steel	316L stainless steel	316L stainless steel	Dursan LS
<b>Nozzle</b>	316L stainless steel	Brass	Brass	Dursan LS
<b>40-Micron inlet filter</b>	316L stainless steel	316L stainless steel	316L stainless steel	Dursan LS
<b>O-ring seal</b>	PTFE	PTFE	PTFE	PTFE

### Functional Specifications

<b>Design Pressure</b>	<ul style="list-style-type: none"> <li>Working pressure: 5500 psig PCTFE</li> <li>Burst pressure: &gt; 150% Working pressure</li> </ul>	<b>Temperature</b>	<ul style="list-style-type: none"> <li>PCTFE: -40°F to 150°F (-40°C to 66°C)</li> </ul>
<b>Maximum Inlet Pressure</b>	<ul style="list-style-type: none"> <li>PCTFE (4500 psig maximum inlet pressure)</li> </ul>	<b>Weight (bare body)</b>	<ul style="list-style-type: none"> <li>6 lbs 4.5 oz. (2.85 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>
<b>Flow Coefficient (Cv)</b>	<ul style="list-style-type: none"> <li>.8</li> </ul>		

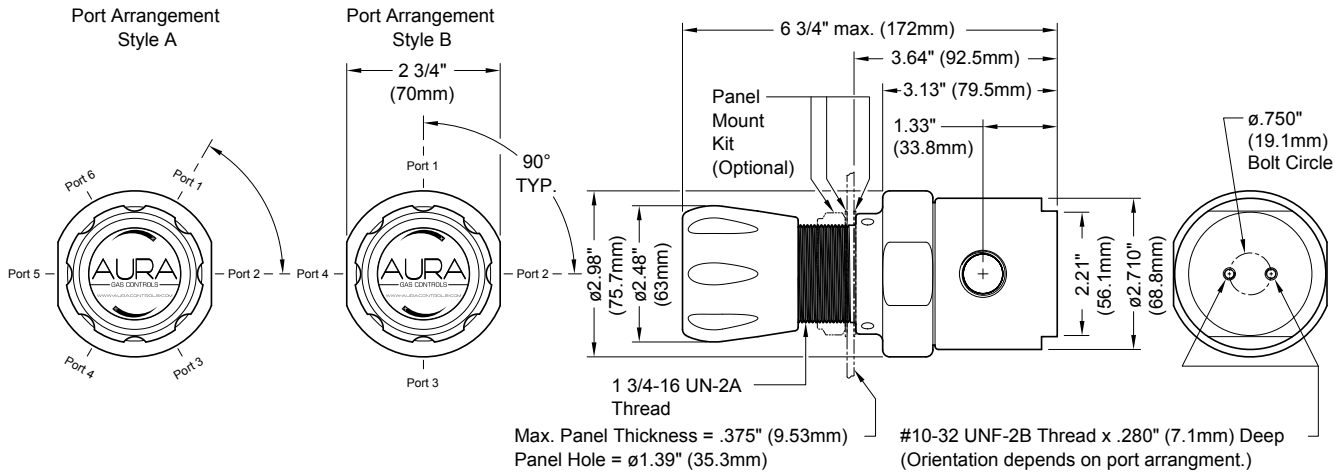
EXF Regulator PCTFE Seat



### Each EXF 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**

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

**Digit 4 - Material of Construction**

- S = 316L stainless steel
- N = Nickel-plated brass
- 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 = 0-120 psig
- 4 = 0-200 psig
- 5 = 0-250 psig

**Digit 6 - Gauges (Major/Minor Scale)**

- 0 = No gauges
- 1 = Inlet (psig/kPa)
- 2 = Outlet (psig/kPa)
- 3 = Both inlet and outlet (psig/kPa)
- 5 = Inlet gauge (BAR/psig)
- 6 = Outlet gauge (BAR/psig)
- 7 = Both inlet and outlet (BAR/psig)

**Digit 8 - Assembly**

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

**Digits 13-15 - Inlet Port**

- Cylinder Connection\*
- 000 = None (1/2" female NPT)
- M06 = 6mm ss compression tube fitting
- M12 = 12mm 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, ni, cp, Dursan LS)
- 1 = Diaphragm valve (ss, cp, Dursan LS)

**Digit 17 - Outlet Fitting**

- 0 = None (1/2" 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

**Key:**

- ss = Stainless steel
- ni = Nickel-plated brass
- cp = Chrome-plated brass
- RH = Right hand
- LH = Left hand
- CON = Cylinder Connection

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

\*AURA Supports all major international cylinder connections including: CGA, BS 341, DIN 477, JIS B 8246, and others available



1501 Harpers Road, Virginia Beach, Virginia 23454

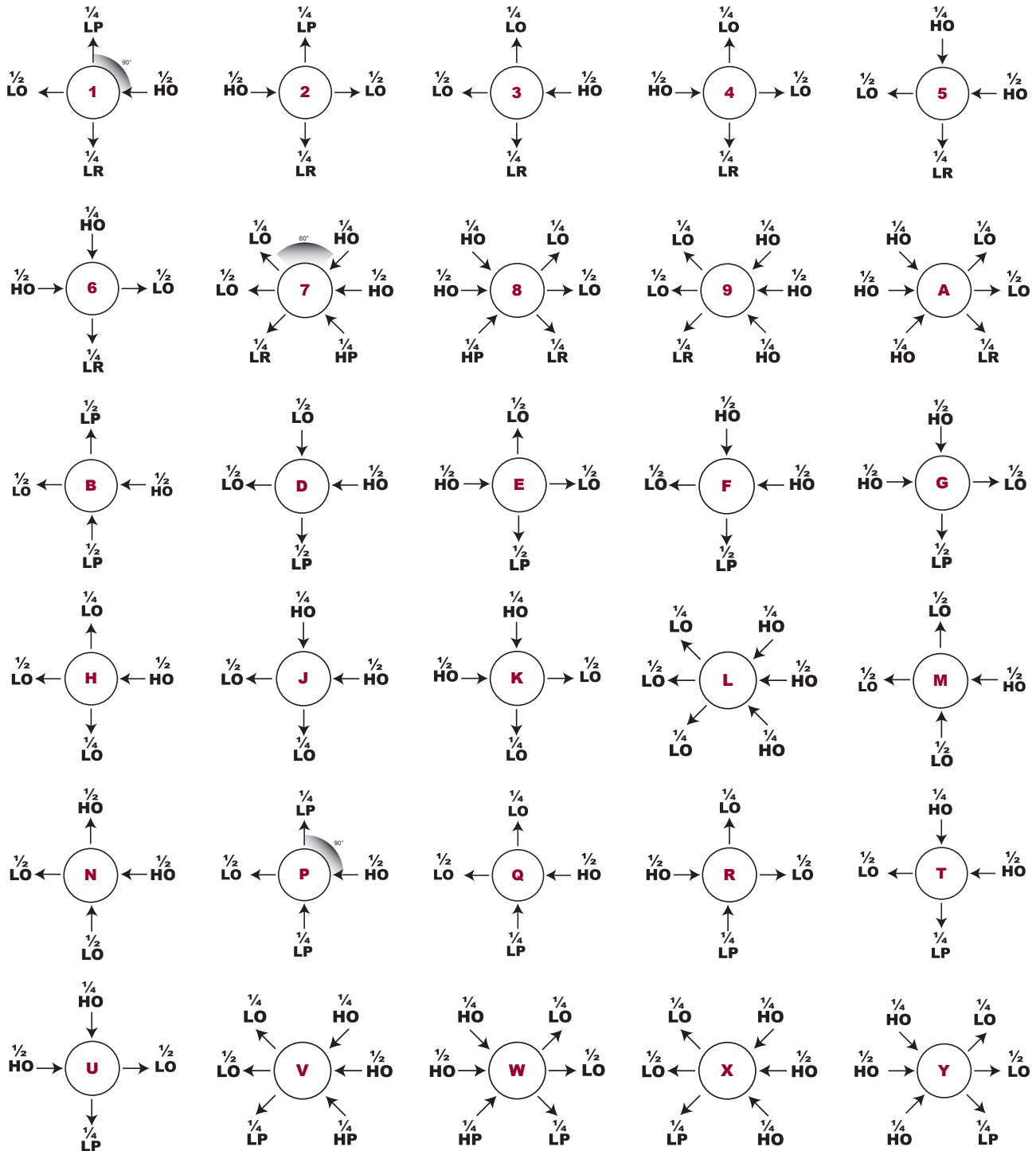
**800.582.2565**

www.AURACONTROLS.com

Registered ISO 9001



# EXF High-Flow Single Stage Pressure Reducing Regulator Port Configuration Table



**Key:**  
 LO - Low Pressure Open  
 LP - Low Pressure Plugged  
 LR - Low Pressure with Relief Valve  
 HO - High Pressure Open  
 HP - High Pressure Plugged



1501 Harpers Road, Virginia Beach, Virginia 23454

**800.582.2565**  
[www.AURACONTROLS.com](http://www.AURACONTROLS.com)

Registered ISO 9001



LEX3179EXF-B