EXF

High-Flow Single Stage Pressure Reducing Regulator

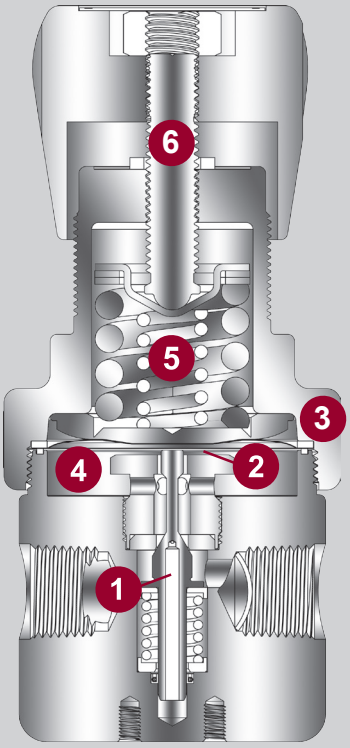
The AURA EXF is designed to provide primary control of high flow gases and liquids at delivery pressures up to 18 bar. The EXF's balanced stem seat design enables the use of larger orifices and seat sizes to accommodate higher flow rates. In addition, it eliminates the need for spring assisted shutoff 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 13mm 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



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EXF High-Flow Single Stage Pressure Reducing Regulator
Technical Data and Product Specifications

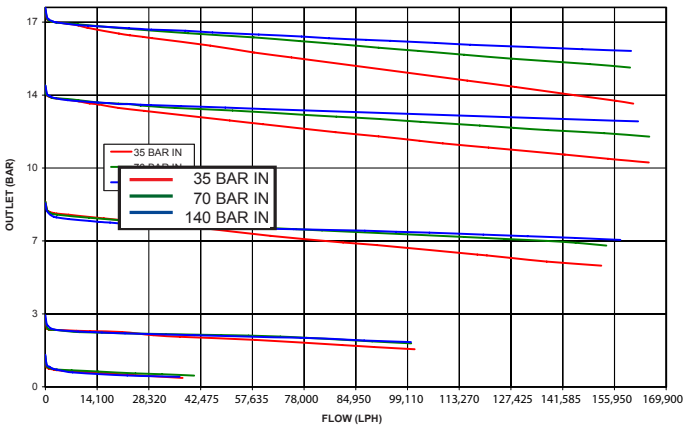
Materials of Construction

	EXFS	EXFC	EXFG
Body	316L stainless steel	Chrome-plated brass	Dursan® LS
Bonnet	304 stainless steel	Chrome-plated brass	Dursan LS
Seat	PCTFE	PCTFE	PCTFE
Pin	316L stainless steel	316L stainless steel	Dursan LS
Nozzle	316L stainless steel	Brass	Dursan LS
40-Micron inlet filter	316L stainless steel	316L stainless steel	Dursan LS
O-ring seal	PTFE	PTFE	PTFE

Functional Specifications

Design Pressure	• Working pressure: 380 bar PCTFE • Burst pressure: > 150% Working pressure	**Temperature**	• PCTFE: -40˚C to 66˚C (-40˚F to 150˚F)
Maximum Inlet Pressure	• PCTFE (310 bar maximum inlet pressure)	**Weight (bare body)**	• 2.85 kg (6 lbs 4.5 oz.)
Leak Rate	• External: $1x10^{-7}$ He ccs • Seat: $1x10^{-7}$ He ccs	**Gauges (optional)**	• 51mm manufactured to ANSI/ASME B40.1
Flow Coefficient (Cv)	• .8		

EXF Regulator PCTFE Seat

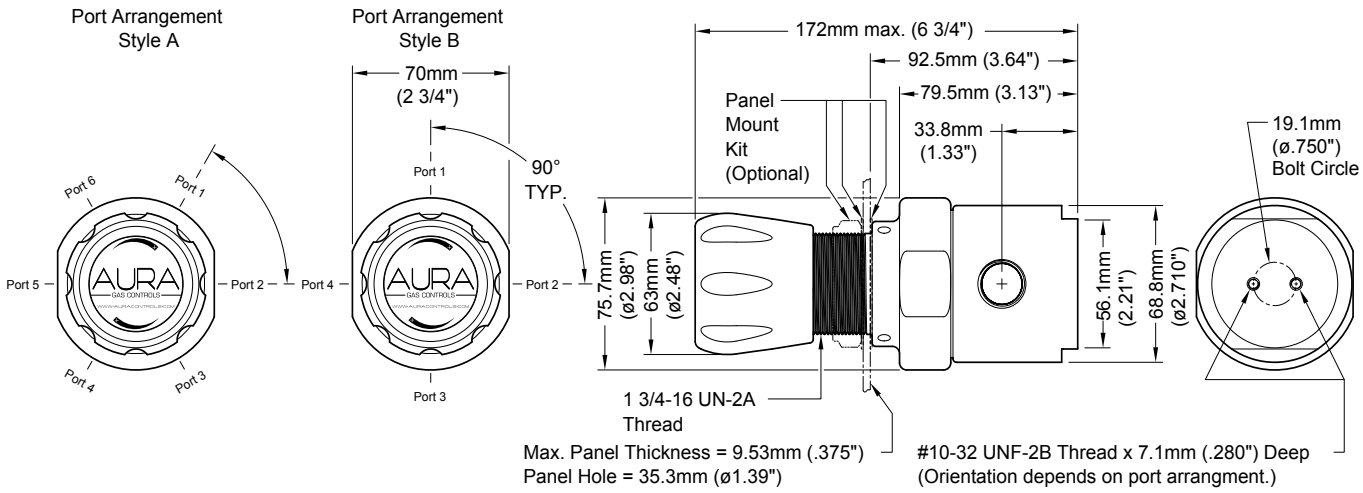


Each EXF regulator assembly includes:

- 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

AURA Products are Manufactured and Assembled in the U.S.A.

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 = 0-1 bar
2 = 0-3 bar
3 = 0-8 bar
4 = 0-14 bar
5 = 0-17 bar

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 (½" female NPT)
M06 = 6mm ss compression tube fitting
M12 = 12mm ss compression tube fitting
TF2 = ⅛" ss compression tube fitting
TF4 = ¼" ss compression tube fitting
TF6 = ⅜" ss compression tube fitting
TF8 = ½" 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 (½" female NPT)
1 = ¼" male NPT fitting
2 = ⅛" ss compression tube fitting
3 = ¼" ss compression tube fitting
4 = ⅜" ss compression tube fitting
5 = ½" 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 = ⅜" BSP RH cp fitting
B = ⅜" 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 +1.757.422.8362.

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

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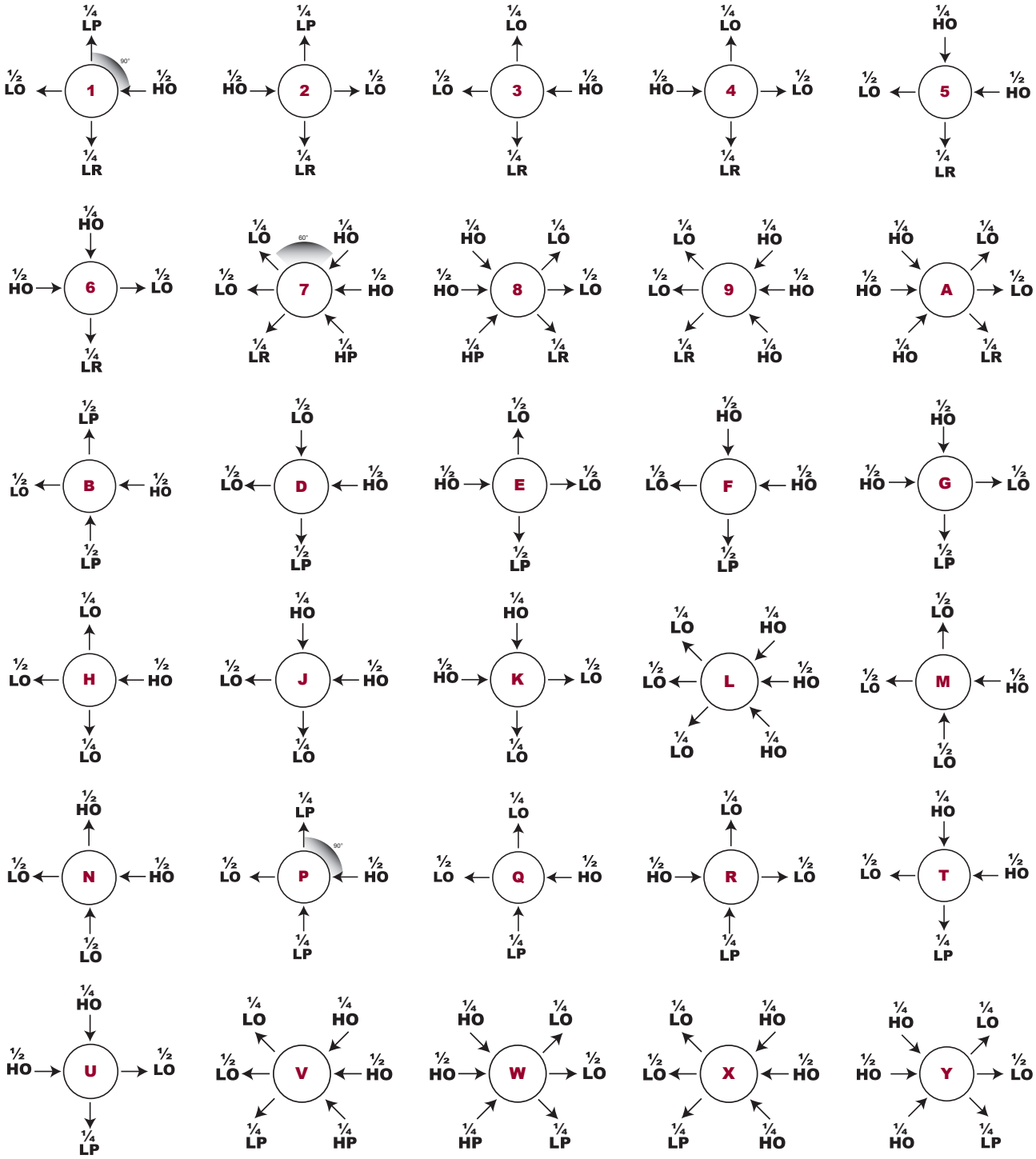
EXF High-Flow Single Stage Pressure Reducing Regulator
Port Configuration Table



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

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