

EXS

Sub-Atmospheric Single Stage Regulator



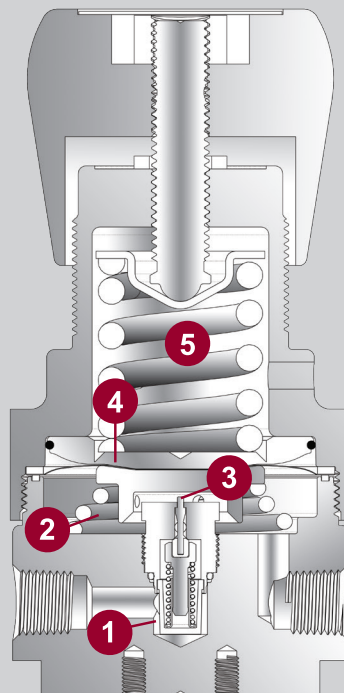
The AURA EXS is a precision single stage regulator designed to provide control under sub-atmospheric conditions in addition to low flow positive pressure applications. The proprietary hybrid spring design works in tandem with the EXS's exclusive oversized dual surface diaphragm, allowing precision pressure control under vacuum and positive pressure from 0 psia to 100 psig. AURA's encapsulated seat design consolidates the numerous moving internal components of a standard regulator into one single piece, allowing for ease of maintenance and minimizing potential failure points. Protected by a 10-micron 360° filter, the encapsulated seat provides significantly more filtration of impurities than the standard pressed-in disk. The encapsulated seat also filters damaging particles from all inlet ports rather than just the pipeline port.

Each EXS 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 EXS undergoes multiple flow and function tests to meet the harsh demands and rugged environment of any application worldwide.

The EXS is available with Dursan® LS inert and anti-corrosive technology that provides superior corrosive resistance to exotic metals in highly acidic or caustic applications, making the EXS the engineer's ideal choice for sub-atmospheric and low flow applications.

EXS Features

- 1. 10-micron 360° filter**
 - Significantly more filtration of impurities
- 2. Hybrid spring design**
 - Precision performance under vacuum and positive pressure
- 3. Encapsulated seat design**
 - Ease of maintenance
- 4. Oversized dual surface diaphragm**
 - Sensitive pressure control
- 5. Field access to adjusting spring**
 - Change delivery pressures in the field



EXS Sub-Atmospheric Single Stage Pressure Reducing Regulator

Technical Data and Product Specifications

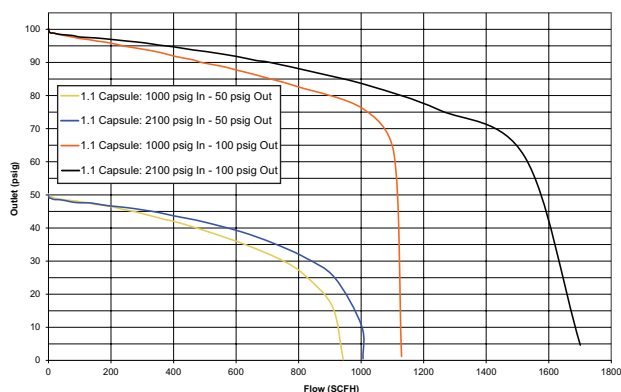
Materials of Construction

	EXSS	EXSG
Body	316L stainless steel	Dursan® LS
Bonnet	304 stainless steel	Dursan LS
Diaphragm	316L stainless steel	Dursan LS
Seat	PTFE	PTFE
10-micron 360° filter	316L stainless steel	Dursan LS
Nozzle	316L stainless steel	Dursan LS
Hybrid spring	Electro-less nickel-plated	Electro-less nickel-plated
O-ring seal	PTFE	PTFE

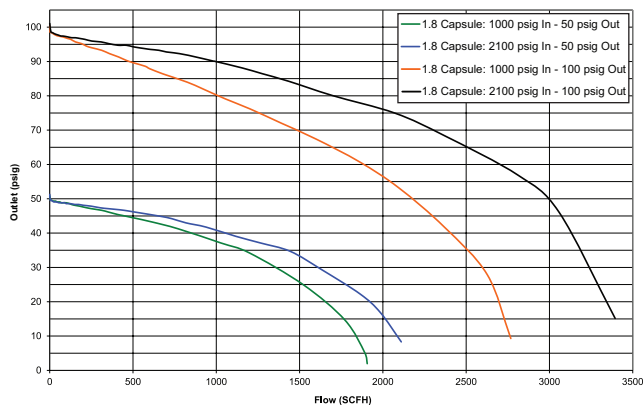
Functional Specifications

Design Pressure	- Working pressure: 3000 psig PTFE - Burst pressure >4x working pressure	Temperature	PTFE: -40°F to 140°F (-40°C to 60°C)
Maximum Inlet Pressure	PTFE (3000 psig maximum inlet pressure)	Weight (bare body)	4 lbs 10 oz. (2.10 kg)
Leak Rate	- External: 1×10^{-7} He ccs - Seat: 1×10^{-7} He ccs	Gauges (optional)	2" manufactured to ANSI/ASME B40.1

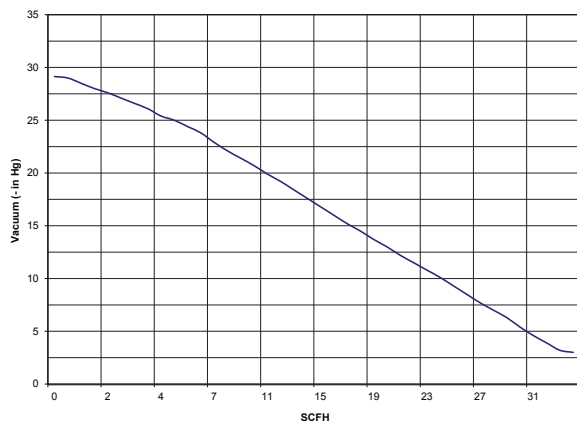
EXS Regulator, 1.1mm PTFE Capsule®



EXS Regulator, 1.8mm PTFE Capsule®



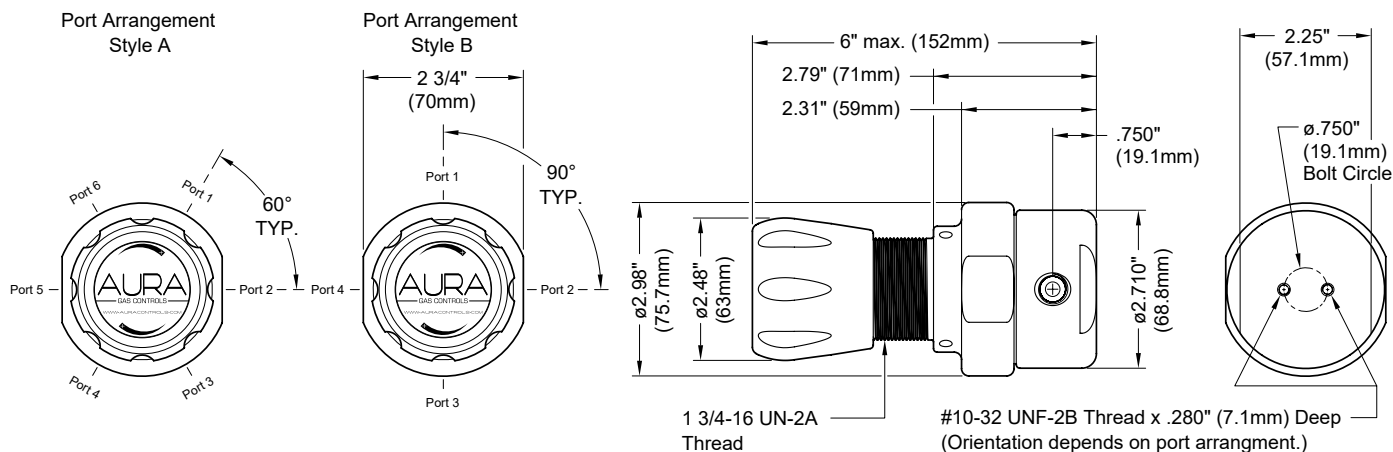
EXS Regulator, Vacuum Flow
1.1mm, 1.8mm and 2.4mm



Each EXS 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

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

Regulator Type - Digits 1-3

Single Stage Subatmospheric Regulator

Material of Construction - Digit 4

S = 316L stainless steel

G = Dursan LS inert and anti-corrosive technology

Pressure Range - Digit 5

2 = 0 psia to 50 psig

3 = 0 psia to 100 psig

Gauges - Digit 6 (Major/Minor Scale)

0 = None

1 = Inlet (psig/kPa)

2 = Outlet (psig/kPa)

3 = Both inlet and outlet (psig/kPa)

5 = Inlet (BAR/psig)

6 = Outlet (BAR/psig)

7 = Both inlet and outlet (BAR/psig)

Capsule® Material - Digit 7

1 = Cv .02 (1.1mm) PTFE

2 = Cv .06 (1.8mm) PTFE

3 = Cv .08 (2.4mm) PTFE

Assembly - Digit 8

(See Port Configuration Table on the back of this brochure)

Inlet Port - Digits 13-15

Cylinder Connection*

000 = None (1/4" 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

Valve Assembly - Digit 16

0 = No valve (stainless steel)

1 = Diaphragm valve (stainless steel)

Outlet Fitting - Digit 17

0 = None (1/4" female NPT)

1 = 1/4" stainless steel FNPT fitting

2 = 1/8" stainless steel TF

3 = 1/4" stainless steel TF

4 = 3/8" stainless steel TF

5 = 1/2" stainless steel TF

6 = 6mm stainless steel TF

7 = 8mm stainless steel TF

8 = 10mm stainless steel TF

9 = 12mm stainless steel TF

Accessories:

Panel mount kit

EXPA0004-01-000-000

Rear mount kit

EXPA0006-01-000-000

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.

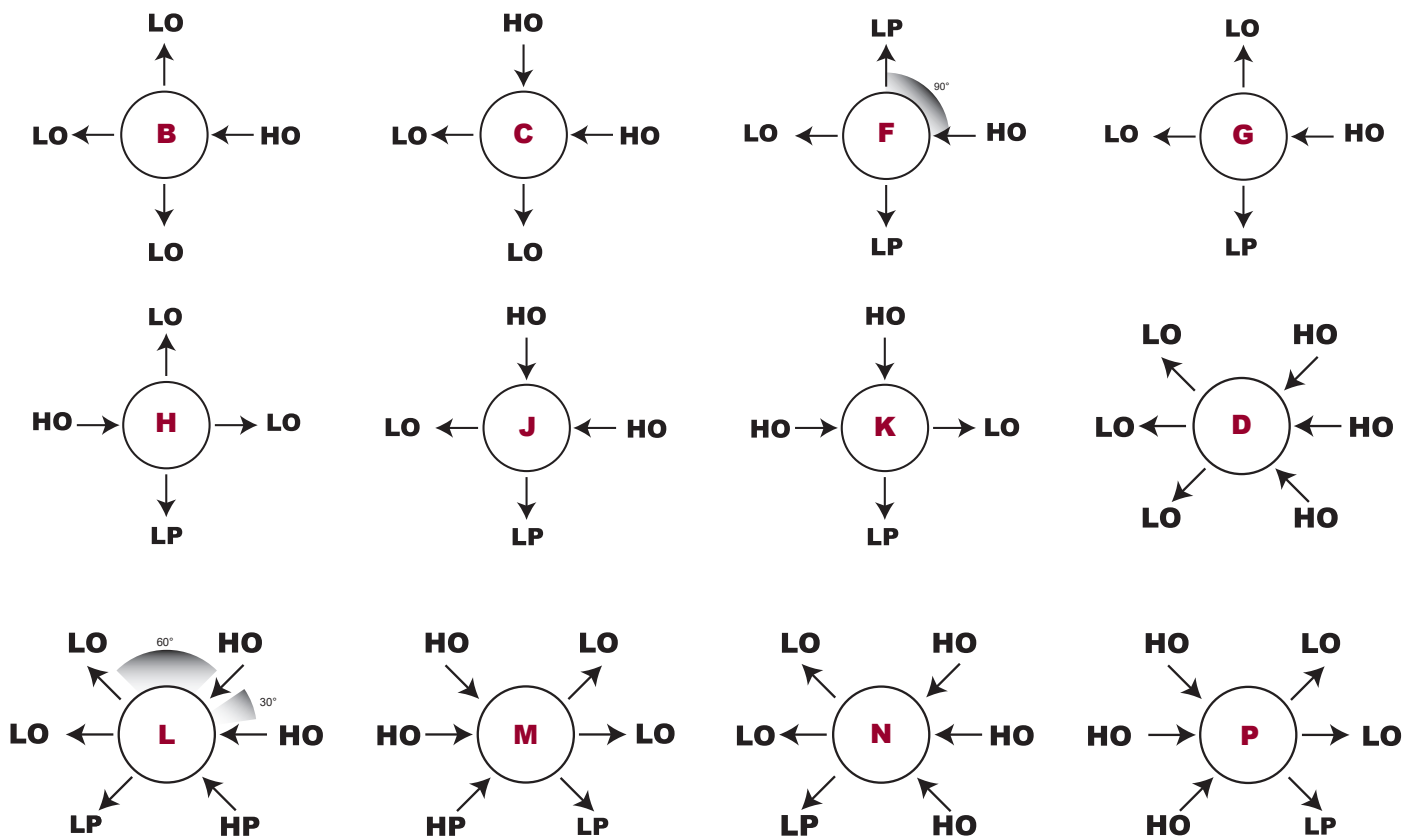
*AURA Supports all major international cylinder connections including: CGA, BS 341, DIN 477, JIS B 8246, and others available



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 800.582.2565 • www.AURACONTROLS.com
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 Dursan® is a registered trademark of SilcoTek Corporation.



EXS Sub-Atmospheric Single Stage Pressure Reducing Regulator Port Configuration Table



Key:

LO - Low Pressure Open
 LP - Low Pressure Plugged
 HO - High Pressure Open
 HP - High Pressure Plugged