AURA™

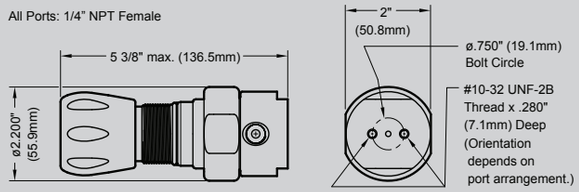
GAS CONTROLS

Critical processes demand precise controls. AURA regulators provide primary and secondary pressure control of liquids and gases ranging from high pressure to sub-atmospheric levels in the most challenging analytical applications. Manufactured and assembled in the United States, each device is backed by an exclusive Lifetime Warranty and decades of industry experience. Innovative designs, superior performance and robust technology define the AURA advantage.

PERFORMANCE GUARANTEED FOR LIFE

EX1

Single Stage Regulator



The AURA EX1 provides primary pressure control of gases and liquids where minor fluctuations in outlet pressure due to variable inlet pressure are accepted. Available with multiple porting options, peripherals and end connections, the EX1 is a reliable general purpose regulator designed to fulfill a wide variety of applications such as instrument panels, skid-mounted systems and line pressure control.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm

Maximum inlet pressure and temperature range:
- PTFE 3000 psig, -40˚F to 140˚F (-40˚C to 60˚C)
- PCTFE 4500 psig, -40˚F to 150˚F (-40˚C to 66˚C)
- PEEK 6000 psig, -40˚F to 275˚F (-40˚C to 135˚C)

Maximum delivery pressure
- 500 psig

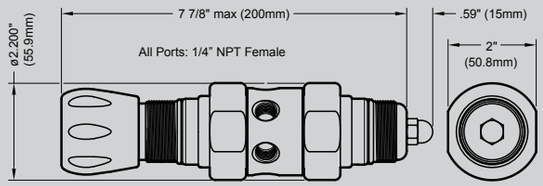
Flow coefficient (Cv)
- .02, .06, .1

Leak rate
- External: $1x10^{-9}$ cc/sec helium
- Seat: $1x10^{-7}$ cc/sec helium

Materials of construction
- Plated brass
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

EX2

Dual Stage Regulator



The AURA EX2 is designed to provide steady and precise outlet pressure control of gases and liquids regardless of changes in inlet pressure. The EX2's dual surface diaphragm provides sensitive pressure control and the encapsulated seat design eliminates impurities. The EX2 is ideal for systems requiring constant outlet pressure such as instrument calibration, compressed gas cylinders and distribution systems.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm

Maximum inlet pressure and temperature range:
- PTFE 3000 psig, -40˚F to 140˚F (-40˚C to 60˚C)
- PCTFE 4500 psig, -40˚F to 150˚F (-40˚C to 66˚C)
- PEEK 6000 psig, -40˚F to 275˚F (-40˚C to 135˚C)

Maximum delivery pressure
- 250 psig

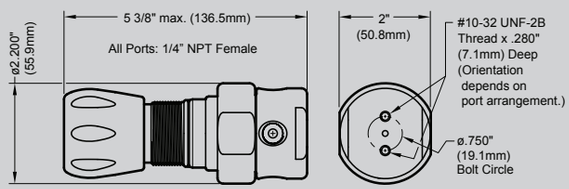
Flow coefficient (Cv)
- .02, .06, .1

Leak rate
- External: $1x10^{-9}$ cc/sec helium
- Seat: $1x10^{-7}$ cc/sec helium

Materials of construction
- Plated brass
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

EXB

Back Pressure Regulator



The AURA EXB provides adjustable relief of excess pressure in closed loop systems caused by spikes in inlet pressure. Unlike standard relief devices that only provide open/close functions, the EXB allows the end user to throttle excess pressure. The EXB is a versatile solution for applications such as analytical instrumentation and processing skids.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm
- 316L stainless steel dynamic cartridge

Maximum control pressure:
- Diaphragm 250 psig
- Dynamic cartridge 500 psig

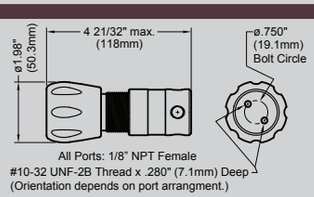
Temperature range
- PTFE: -40˚F to 140˚F (-40˚C to 60˚C)
- PCTFE: -40˚F to 150˚F (-40˚C to 66˚C)
- Viton: -40˚F to 140˚F (-40˚C to 60˚C)

Leak rate
- External: $1x10^{-9}$ cc/sec helium (diaphragm model)
- External: $1x10^{-7}$ cc/sec helium (dynamic cartridge model)
- Seat: $1x10^{-7}$ cc/sec helium

Materials of construction
- Plated brass
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

EXC

Compact Regulator



The AURA EXC enables accurate and reliable pressure control of gases and liquids in a single stage where space is at a premium. The ultra-compact design minimizes weight and footprint to allow the EXC to be integrated into numerous systems with ease.

Specifications

Sensing element
- 316L stainless steel dynamic cartridge

Maximum inlet pressure and temperature range:
- PTFE 3000 psig, -40˚F to 140˚F (-40˚C to 60˚C)
- PCTFE 5500 psig, -40˚F to 150˚F (-40˚C to 66˚C)

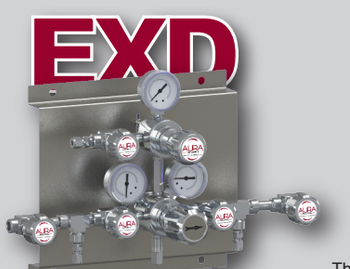
Maximum delivery pressure
- 1500 psig

Flow coefficient (Cv)
- .02, .06, .08

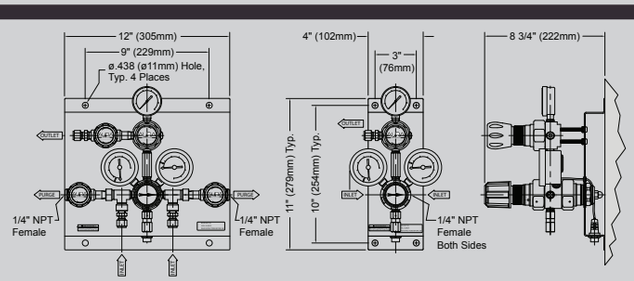
Leak rate
- External: $1x10^{-7}$ cc/sec helium
- Seat: $1x10^{-7}$ cc/sec helium

Materials of construction
- Plated brass
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

EXD



Pressure Differential Switchover



The AURA EXD is an automatic switchover system designed to provide a continuous supply of high purity gas for inlet pressures up to 3000 psig. Fully configurable with multiple inlet fittings, purges, panels, and delivery ranges up to 350 psig, the EXD allows for superior flexibility and functionality in applications requiring uninterrupted flow of gas, such as refinery stack analysis, sampling systems and laboratory applications.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm

Maximum inlet pressure and temperature range:
- PTFE 3000 psig, -40˚F to 140˚F (-40˚C to 60˚C)

Maximum delivery pressure
- 350 psig

Inlet options
- Diaphragm valve
- Direct purge
- Tee purge

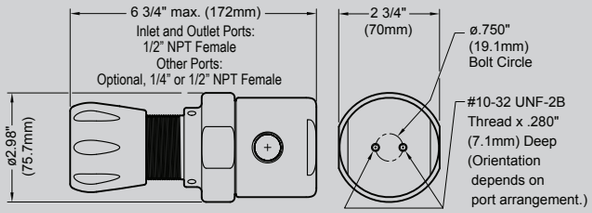
Leak rate
- External: $1x10^{-8}$ cc/sec helium
- Seat: $1x10^{-7}$ cc/sec helium

Panel options
- 4"
- 12"
- 24"

Materials of construction
- Brass
- 316L stainless steel body and 304 stainless steel bonnet

EXF

High Flow Regulator



The AURA EXF provides primary pressure control of high flow gases and liquids. AURA's dual surface diaphragm provides sensitive pressure control while the EXF's large orifice size and ½" process ports allow for maximum flow. The EXF is an ideal solution for applications such as pharmaceutical sample blanketing, point of use gas systems and chemical pipelines.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm

Maximum inlet pressure and temperature range:
- PCTFE 4500 psig, -40˚F to 150˚F (-40˚C to 66˚C)

Maximum delivery pressure
- 250 psig

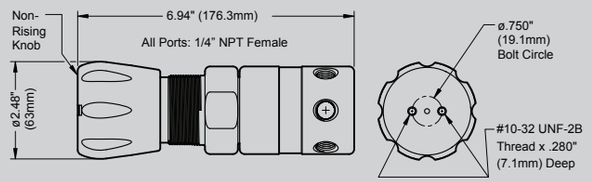
Flow coefficient (Cv)
- .8

Leak rate
- External: $1x10^{-7}$ cc/sec helium
- Seat: $1x10^{-7}$ cc/sec helium

Materials of construction
- Plated brass
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

EXH

High Pressure Regulator



The AURA EXH supplies principle pressure control of gases and liquids in closed loop systems requiring delivery pressures as high as 4500 psig. The standard self-venting feature allows gas downstream to be safely relieved as the desired outlet pressure is decreased. The EXH is a reliable and flexible fit in applications such as test benches, process line surge protection and aerospace systems.

Specifications

Sensing element
- 316L stainless steel dynamic cartridge

Maximum inlet pressure and temperature range:
- PTFE 4000 psig, -40˚F to 140˚F (-40˚C to 60˚C)
- PCTFE 5500 psig, -40˚F to 150˚F (-40˚C to 66˚C)

Maximum delivery pressure
- 4500 psig

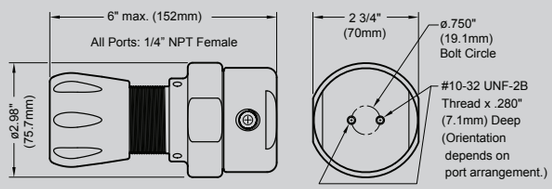
Flow coefficient (Cv)
- .02, .06, .1

Leak rate
- External: $1x10^{-7}$ cc/sec helium
- Seat: $1x10^{-7}$ cc/sec helium

Materials of construction
- 316L stainless steel body and 304 stainless steel bonnet

EXS

Sub-Atmospheric Regulator



The AURA EXS is designed to provide accurate pressure control under sub-atmospheric conditions as well as for low flow applications. The EXS's hybrid spring design allows for precision vacuum control while the oversized dual surface diaphragm allows for increased sensitivity in low flow applications. The EXS is an ideal choice for applications such as hydrocarbon leak detection, analytical instrumentation and vacuum coating.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm

Maximum inlet pressure and temperature range:
- PTFE 3000 psig, -40˚F to 140˚F (-40˚C to 60˚C)

Delivery pressure range
- 0 psia to 100 psig

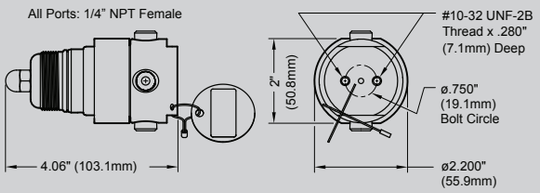
Flow coefficient (Cv)
- .02, .06, .08

Leak rate
- External: $1x10^{-7}$ cc/sec helium
- Seat: $1x10^{-7}$ cc/sec helium

Materials of construction
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

EXT

High Temperature Regulator



The AURA EXT enables pressure control of gases and liquids at elevated temperatures and ambient process environments as high as 500°F. The EXT incorporates a corrosive and heat resistant design along with all metal to metal seals to ensure functionality and reliability in applications such as petrochemical process, furnace, and boiler systems.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm

Maximum inlet pressure and temperature range:
- PEEK 3000 psig
  - EXTS: -40˚F to 500˚F (-40˚C to 260˚C)
  - EXTG: -40˚F to 450˚F (-40˚C to 232˚C)

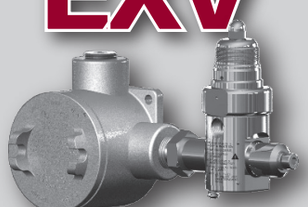
Maximum delivery pressure
- 500 psig

Flow coefficient (Cv)
- .06

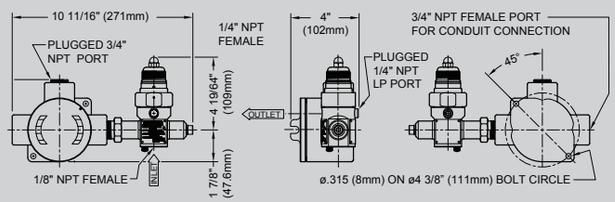
Leak rate
- External: $1x10^{-9}$ cc/sec helium
- Seat: Bubble tight

Materials of construction
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

EXV



Vaporizing Regulators



The AURA EXV provides steady and reliable heat to vaporize and maintain gas phase of samples for analysis. The proprietary labyrinth-style flow path maximizes the heated surface area to prevent samples from condensing. Available in both electronically and steam heated designs with numerous temperature, wattage, and voltage options, the EXV is a versatile solution for applications such as hydrocarbon analysis, natural gas sampling systems and fluid analysis.

Specifications

Sensing element
- 316L stainless steel dual surface diaphragm

Maximum inlet pressure and temperature range:
- PEEK 3000 psig
  - Electrical: -40˚F to 380˚F (-40˚C to 193˚C)
  - Steam: -40˚F to 500˚F (-40˚C to 260˚C)

Maximum delivery pressure
- 500 psig

Leak rate
- External: $1x10^{-9}$ cc/sec helium
- Seat: Bubble tight

Materials of construction
- 316L stainless steel body and 304 stainless steel bonnet
- LumiShield™ inert and anti-corrosive technology

Certifications
- CAN/CSA E60079-0 and E60079-1
- UL 1203
- ATEX 13688
- Class 1, Division 1, Group A,B,C,D

The AURA Advantage

Encapsulated Seat Design

- Consolidated internal parts allow easy maintenance
- 10-Micron 360° filter eliminates impurities from all inlet ports
- Orifice size and seat material options ensure ideal performance

Precision Manufacturing

- Metal to metal seals enable 1x10^{-9} cc/sec helium leak integrity
- 4-25 Ra surface finishes reduce corrosion
- Low internal volume minimizes dead space

Lifetime Warranty

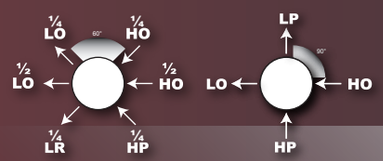
- All products are guaranteed free from manufacturing defect for life
- Minimal number of components eliminates failure points
- Rugged construction increases life cycle in harsh environments

Rigorous Assembly and Testing

- Class 100 cleanroom assembly
- Cleaning for oxygen service standard
- 100% Helium leak check on every product
- Multiple flow and function tests as a complete assembly with peripherals installed

Superior Service

- Made-to-order products meet any user's specification
- Lead times in days with same-day expedited shipping available
- Applications assistance and local training provided by industry experts
- Online access to CAD files, literature, and technical resources

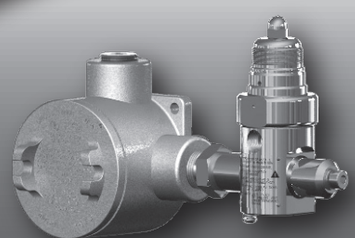


Customized Product Design

- Wide array of standard configurations
- Products engineered from scratch to specific application needs
- Experienced design team knowledgeable in global regulatory requirements

LumiShield Inert and Anti-Corrosive

- Superior corrosion resistance compared to stainless steel and exotic alloys
- Inert surface eliminates absorption of corrosive compounds and moisture
- Reliable in both caustic and acidic applications up to 450°C



AURA GAS CONTROLS

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All AURA Gas Controls products are designed, manufactured and assembled in the U.S.A.