

WOA Series Wall Outlets for Analytical Applications

Key Features

Designed Specifically for High Purity Gases

No more medical outlets for laboratory gases

Brass or Stainless Steel Construction

A wide variety of materials is available for material compatibility with the service gas

Proven Quick Connect Technologies

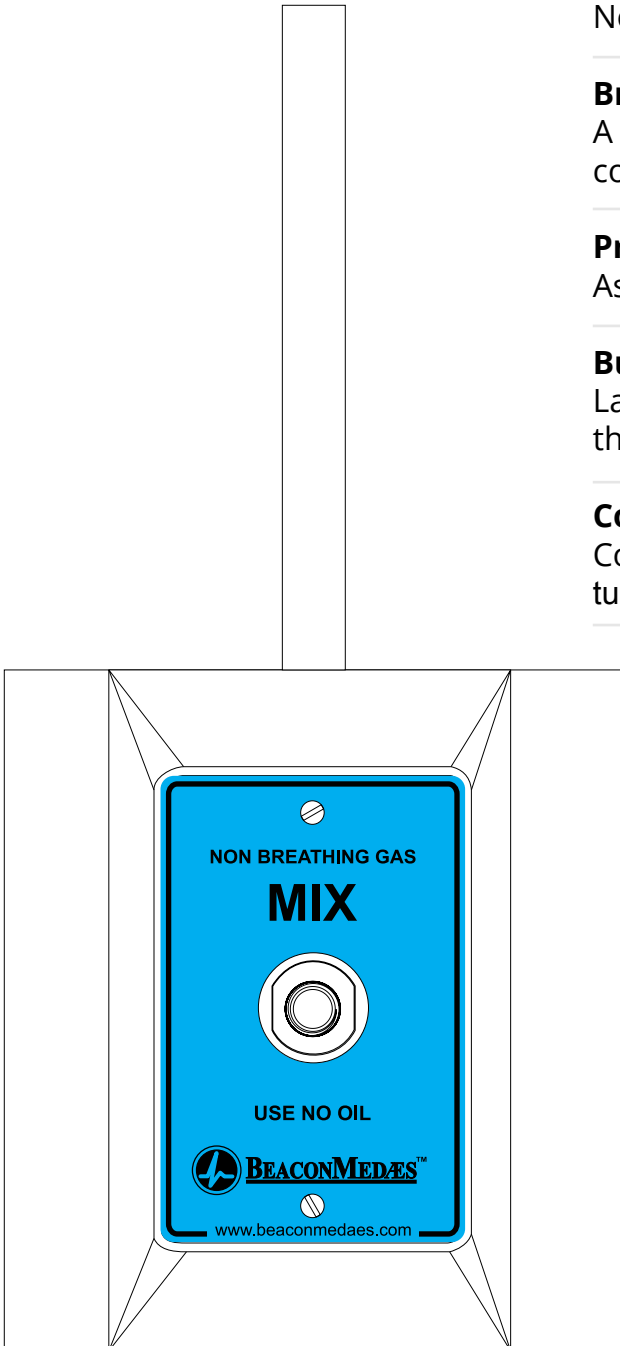
Assembled with reliable Swagelok quick connect assemblies

Built with BeaconMedaes Series B Hardware

Laboratory wall outlets and medical gas wall outlets look the same throughout the building

Color Coding as per SEFA

Consistent color coding for gas apparatuses such as gas turrets throughout the laboratory



**No Cross Connection
No Contamination
PURE & SIMPLE**

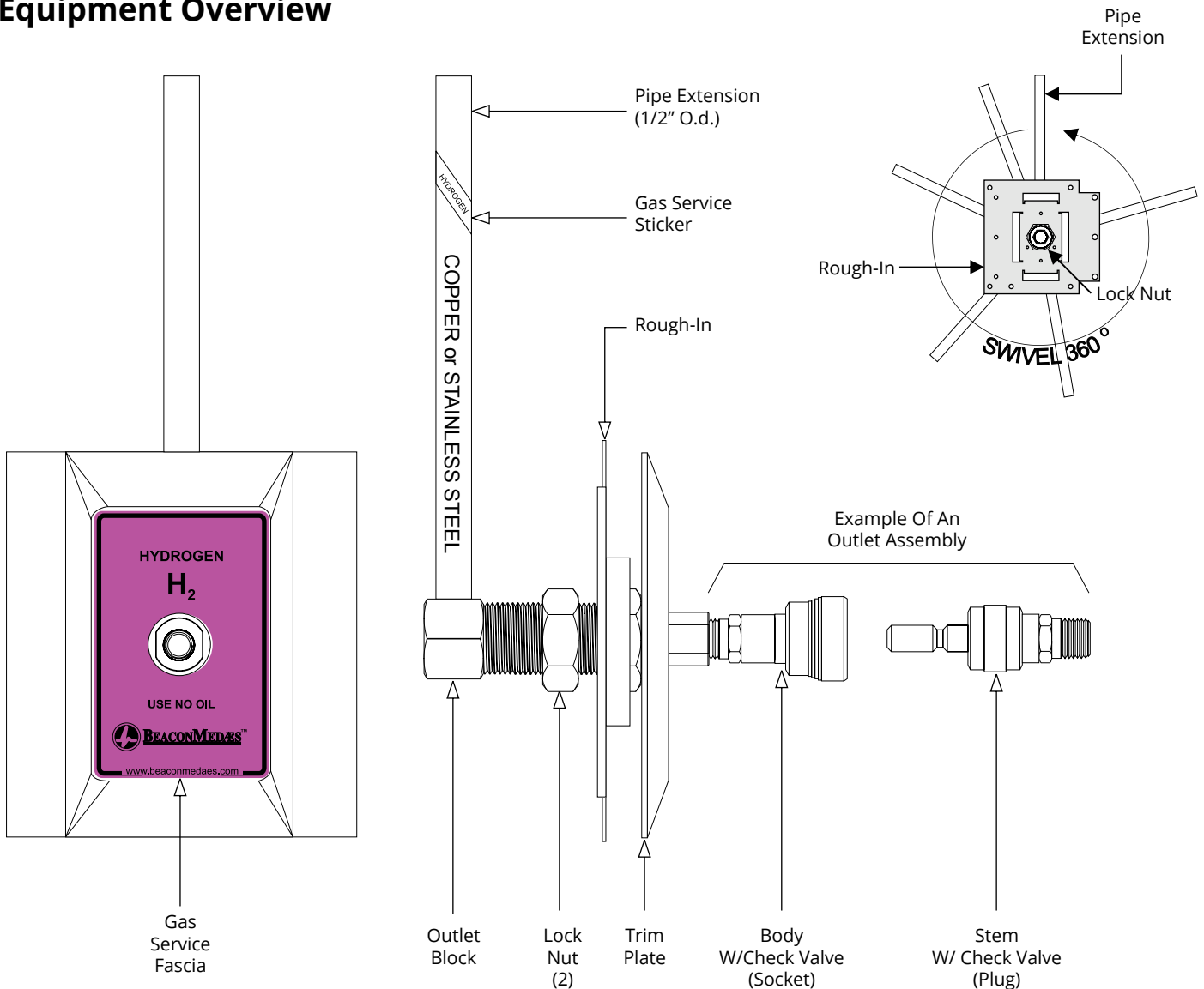
Wall Outlets for Analytical Applications

Description

It is no longer necessary to install medical gas wall outlets for laboratory gases. The WOA Series Wall Outlets for Analytical Applications is designed for high purity gases. Each wall outlet is labeled for the exact gas service whether it is a pure gas or a gas mixture. BeaconMedæx offers a wide variety of quick connect assemblies to prevent cross connections between gases. The unique design allows the design engineer architect to select the construction materials and accommodate pretty much all standard wall thicknesses. The installer will be pleased to see that the wall outlet body rotates 360° for ease of installation.

The WOA Series Wall Outlet for Analytical Applications is assembled using the BeaconMedæx Series B rough-ins and trim plates. This allows the architect to design the a laboratory with a standard wall outlet look even if other gases (or vacuum) are not high purity such as medical instrument air.

Equipment Overview



Wall Outlets for Analytical Applications

Typical Outlet Assemblies

BeaconMedæx uses Swagelok quick connect assemblies with the WOA Series wall outlets for analytical applications. Swagelok is renowned for their outstanding product quality and unequal reliability.

No Cross Connections

In order to avoid cross-connection and cross contamination, several measures are taken:

- any quick connect stem will fit any quick connect body of the same series;
- different size of bodies and stems are used depending upon the family of gases (see Table below);
- the bodies and stems can be either on the wall outlet side or the hose side (see Table below);
- within the same family of gases (for examples inerts or flammables), several key numbers are available if required.

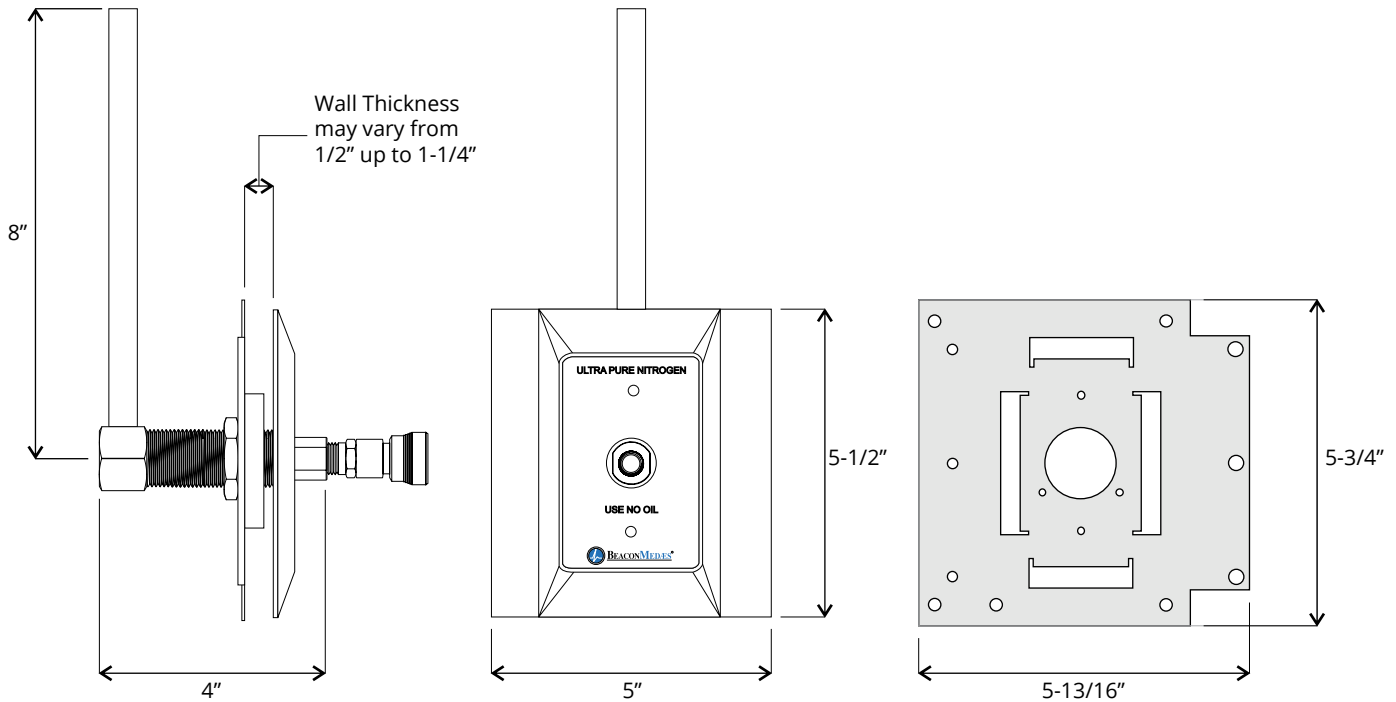
Minimal Air Inclusions

The other important features of the WOA Series wall outlet is the DESO (Double End Shut Off). That means less air inclusions into the gas stream as both bodies and stems are equipped with a check valve.

Gas Service	Wall Outlet Side		Hose Side	
Inerts Or Inert Gas Mixtures For Laboratories Such as: Argon Nitrogen Helium Krypton Xenon Neon	1/4" M.NPT	1/4" Body w/CV	←	1/4" Stem w/CV 1/4" M.NPT
Flammables Or Flammable Gas Mixtures For Laboratories Such as: Hydrogen Methane Ethylene Excludes: Acetylene Propane Natural Gas	1/4" M.NPT	3/8" Body w/CV	←	3/8" Stem w/CV 1/4" M.NPT
Oxygen Or Oxygen-Based Mixtures For Laboratories Excludes: All Gases Covered Under NFPA 99 Oxygen for Welding Medical Oxygen Breathing Gas Mixtures	1/4" M.NPT	1/4" Stem w/CV	←	1/4" Body w/CV 1/4" M.NPT
Carbon Dioxide Or Carbon Dioxide-Based Mixtures For Laboratories & Air Or Air-Based Mixtures For Laboratories Excludes: All Gases Covered Under NFPA 99 Medical Air Industrial (Compressed Air) Breathing Air Mixtures	1/4" M.NPT	3/8" Stem w/CV	←	3/8" Body w/CV 1/4" M.NPT

Wall Outlets for Analytical Applications

Dimensions



Materials (Standard Parts Only)

	Typical Brass Body Units	Typical Stainless Steel Units
Pipe	<i>Copper, Type K or L</i>	<i>Type 316/L Stainless Steel</i>
Body	<i>Brass, ASTM B16</i>	<i>Type 316 Stainless Steel</i>
Quick Connects		
<i>Body, housing, stem, body valve, body insert, DESO valve, DESO retainer</i>	<i>Brass C36000</i>	<i>Type 316 Stainless Steel</i>
<i>O-rings</i>	<i>Buna-N</i>	<i>Fluorocarbon FKM</i>
<i>Springs</i>	<i>Type 316 Stainless Steel</i>	<i>Type 316 Stainless Steel</i>
Body Sleeve	<i>Brass C36000</i>	<i>Powdered metal 300 series SS</i>
DESO Stem Sleeve	<i>Polyurethane enamel-coated 316 SS</i>	<i>Polyurethane enamel-coated brass C36000</i>
Locking Dogs	<i>Xylan-coated 316 SS powdered metal</i>	<i>Xylan-coated 316 SS powdered metal</i>
Lubricants	<i>Silicon and PTFE-based*</i>	<i>Silicon and PTFE-based*</i>
Locking Nuts	<i>Brass, ASTM B16</i>	<i>Brass, ASTM B16</i>
Trim Plate	<i>Die cast, light gray, epoxy coated</i>	<i>Die cast, light gray, epoxy coated</i>
Rough-In	<i>16-gauge steel</i>	<i>16-gauge steel</i>
Front Plate	<i>Aluminum</i>	<i>Aluminum</i>
Sticker	<i>Lexan over Vinyl</i>	<i>Lexan over Vinyl</i>

*Other O-ring materials and lubricants are available. Contact BeaconMedæ. Wetted components listed in italics.

Wall Outlets for Analytical Applications

Specifications

	1/4" Quick Connects	3/8" Quick Connects
Service Fluids	Inert Gases and Oxygen	Flammable Gases, Carbon Dioxide & Air
Outlet Connection	1/4" M.NPT	1/4" M.NPT
Cleaning	Factory cleaned for oxygen service	Factory cleaned for oxygen service
Pipe Outside Diameter	1/2"	1/2"
Flow	Cv = 0.2	Cv = 0.5
Spillage⁽¹⁾	0.3 cm ³	1.0 cm ³
Air Inclusion⁽²⁾	0.3 cm ³	1.0 cm ³
Maximum Working Pressure	250 psig	250 psig

⁽¹⁾ Spillage is the amount of system gas that escapes when a quick connect is uncoupled.

⁽²⁾ Air inclusion is the amount of air trapped between the body and stem that enters the system when a quick connect is coupled.

Fascia (Label)

Gas Service	Background Color	Letters & Trim Color	Possible Symbol
Air	Orange	White	Air
Acetylene	Violet	White	C ₂ H ₂
Argon	Violet	White	Ar
Carbon Dioxide	Pink	White	CO ₂
Helium	Black	White	He
Hydrogen	Pink	Black	H ₂
Nitrogen	Brown or Gray	White	N ₂
Oxygen	Light Green	Black	O ₂
All Other Gases	Light Blue	White or Black	Chemical Symbol of Gas

Ordering Information



Gas	Inscribe
Air	CGA 346
Acetylene	CGA 510A
Argon	CGA 580A
Carbon dioxide	CGA 320
Helium	CGA 580H
Hydrogen	CGA 350H
Nitrogen	CGA580N
Nitrous oxide	CGA 326
Oxygen	CGA 540
Other	Specify

Quick Connect Material	Inscribe
Brass	QCB
Stainless Steel	QCSS

Pipe Extension Material	Inscribe
Copper	B280
Type 316L Stainless Steel	A269

Body Material	Inscribe
Brass	B
Stainless Steel	SS