582 Series AutoSwitch 2

The 582 Series AutoSwitch 2 is an electronic gas delivery system for high purity gas service. Typically used in the laboratory or process plant, it automatically changes cylinder or bank priority from the primary source to a reserve supply without transmitting pressure fluctuations to the use line. The system comes with inlet pressure transducers to help monitor gas supply pressure. Unlike most fully automatic switchovers, every valve in the AutoSwitch 2 has metal-to-metal seals suitable for continuous high purity gas delivery without compromising purity integrity. The 582 AutoSwitch 2 is intended for high pressure supply sources only. For cryogenic liquid supply systems, CONCOA recommends the IntelliSwitch family of products.



5822011-01-001 shown

Typical Applications

- High Purity Inert Gas Applications from High Pressure Supply Sources
- Gas Chromatography and Mass Spec Carrier and Support Gases
- Central Gas Supply System for Laboratory, Research, or Process Plants
- Biotech, Pharmaceutical, and Forensic Gas Systems
- Modified Atmosphere Packaging (MAP)

Features

Metal-to-Metal Seals prevent possibility of gas contamination

Integral Line Regulator provides stable line pressure during changeover

Variable Line Pressure allows pressure change on site

Microprocessor Control permits fully automatic priority assignment

400 Series Brass Components with CAPSULE® Seat Technology feature 360° filtration

Primary-Reserve Failure Mode ensures continuous efficient gas supply during power loss

Three 4-20 mA Analog Outputs echo the pressure to optional remote alarm/monitoring system

Leak Detection Capability eliminates waste and improves safety when engaged

Integral Pressure Monitors activate digital relays when inlet or outlet pressures cross user-set limits

Optional Altos 2 Remote Alarm prevents downtime or process interruption

Materials and Specifications

Maximum Inlet Pressure: 3000 PSIG (210 BAR)

Temperature Range: 0°F to 100°F (-18°C to 40°C)

Maximum Flow at 100 PSIG (7 BAR): 600 SCFH (283 LPM)

Inlet Connection: 1/2" FNPT

Outlet Connection: 1/2" FNPT

Priority Valve Body: Brass barstock

Helium Leak Integrity: 1 x 10^{-8} scc/sec

Line Regulator Body: Brass barstock

Diaphragms: 316L stainless steel

Enclosure: NEMA 12 Polycarbonate

Tubing and Fittings: 316L stainless steel

Internal Seals: PTFE

582 Series AutoSwitch 2

Materials and Specifications

Seats: PTFE (line regulator); PCTFE (priority regulator)

Transducers: Two 0-6000 PSIG (inlets); One 0-1000 PSIG (outlet)

Power Input: 24VDC 800 mA (high voltage transformer not included)

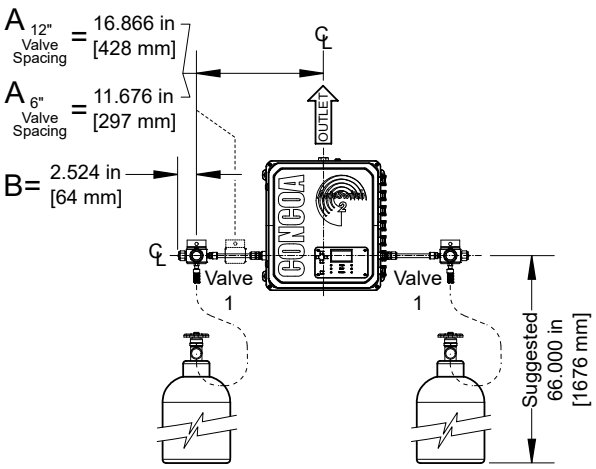
Outputs: Dry contact relay outputs (four); Normally open/normally closed; Contact rating 0.5A 24V
4-20 mA analog outputs (three)

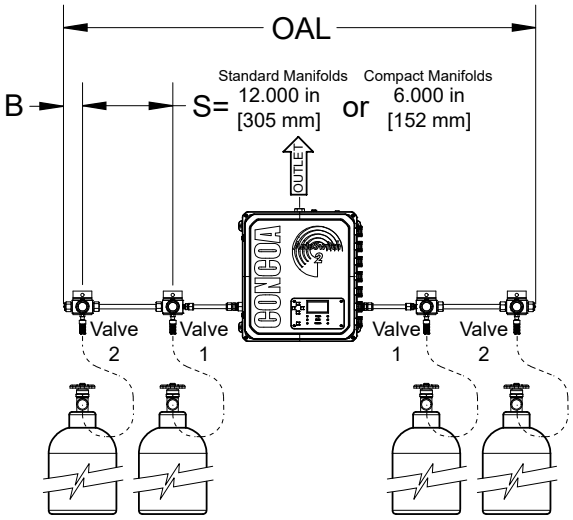
Weight: 30 lbs. (14 kg)

Conformances: Cleanliness meets or exceeds CGA G-4.1; CRN OH5216.5; CRN: OH17950.5

Installation Dimensions

Formula to Calculate Overall Length:





A = Distance from CL of Outlet to CL of Valve 1
B = Distance from CL of Last Valve to End Cap
S = Distance Between Valves
OAL = System Overall Length

OAL = (A + B + [S x {number of valves minus 1}]) x 2

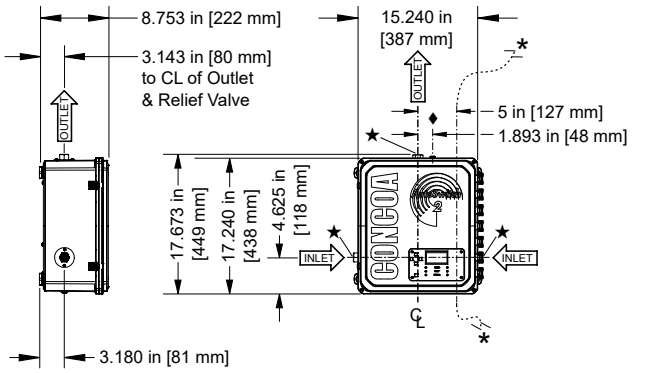
Example 1 4 Valves Per Side, Standard Manifolds (12" Spacing):
OAL = (16.866 + 2.524 + [12.000 x 3]) x 2 = 110.78 in [2814 mm]

Example 2 8 Valves Per Side, Compact Manifolds (6" Spacing):
OAL = (11.676 + 2.524 + [6.000 x 7]) x 2 = 112.40 in [2855 mm]

582 Series AutoSwitch 2

Installation Dimensions

Wall Mounting Dimensions:



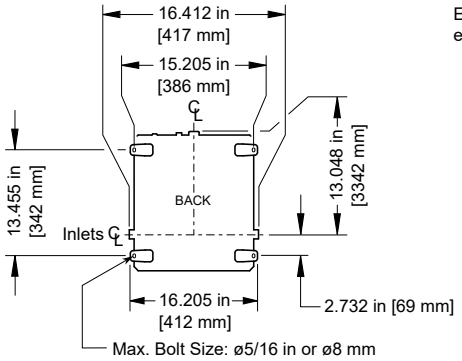
♦ 1/4" Female NPT Relief Valve Port

★ 1/2" Female NPT Port

* Electrical Input via Pierceable Water-Tight Hole Plugs in ø.540 in [ø13.5 mm] Holes on Top and Bottom of Enclosure.

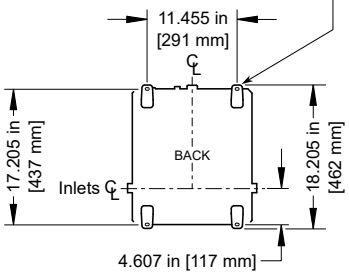
Power Supply Sold Separately.

Wall Mount Ears Horizontal

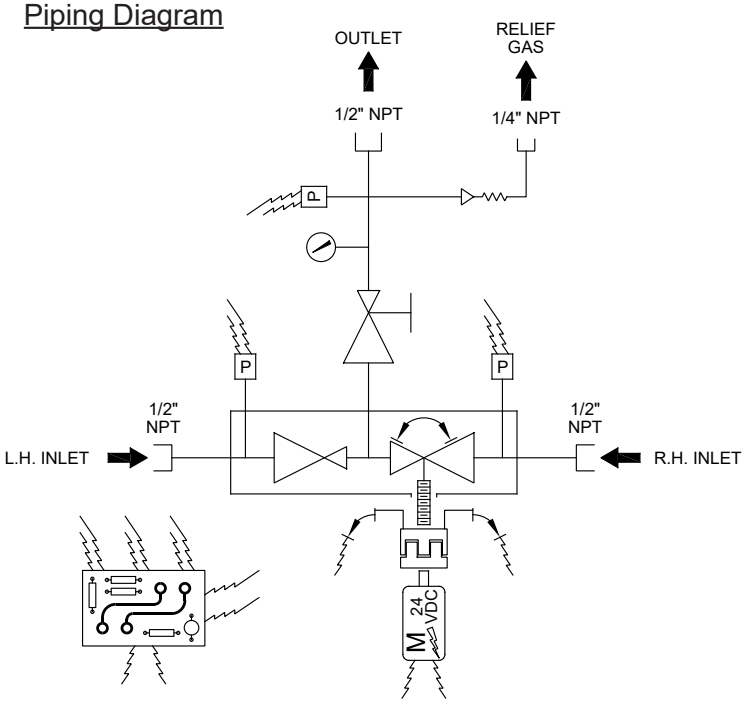


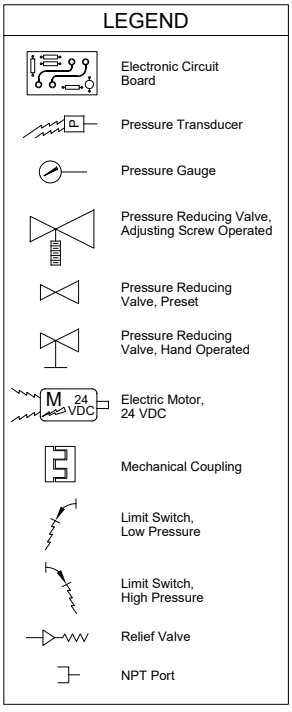
Wall Mount Ears Vertical

Each mounting ear is independently rotatable to either the vertical or the horizontal position.



Piping Diagram





582 Series AutoSwitch 2

CONCOA PRECISION GAS CONTROLS

Ordering Information

Series	A	B	C	D	-CON	Options
582	Outlet Pressure	Inlet Connection	Cylinders/Side	Alarm	Hose	Installed Options
	1: 0-100 PSIG (0-7 BAR)	**0:** 1/2" FNPT	**0:** No inlet connection	**1:** No alarm included	**-001:** 1/2" FNPT Port	**None**
	2: 0-200 PSIG (0-14 BAR)	**1:** Brass manifolds with one 24" (600 mm) stainless steel flexible hose at each station	**1:** One cylinder	**A:** Altos 2 Alarm included	*Please specify inlet connection (if applicable).*	**C:** Compact manifold connector and 6" extensions
	3: 0-350 PSIG (0-24 BAR)	**2:** Brass manifolds with one 36" (900 mm) stainless steelflexible hose at each station	**2:** Two cylinders		*CGA DIN 477 BS 341 and others available.*	
		3: Chrome-plated brass manifolds with one 24" (610 mm) stainless steel flexible hose at each station	**3:** Three cylinders			
		4: Chrome-plated brass manifolds with one 36" (914 mm) stainless steel flexible hose at each station	**4:** Four cylinders			
		5: Brass diaphragm valves with one or two 36" (914 mm) stainless steel flexible hoses per side only	**5:** Five cylinders			
		6: Brass diaphragm valves with one or two 72" (1829 mm) stainless steel flexible hoses per side only	**6:** Six cylinders			
		7: Brass double row manifold with two 24" (610 mm) stainless steel hoses at each station	**7:** Seven cylinders			
		8: Brass double row manifold with two 36" (914 mm) stainless steel hoses at each station	**8:** Eight cylinders			
		9: Chrome-plated double row manifold with two 24" (610 mm) stainless steel hoses at each station				
		A: Chrome-plated double row manifold with two 36" (914 mm) stainless steel hoses at each station				

Related Options

Part No.	Description
835 5703	Power supply for 582 Series AutoSwitch 2 (100-240VAC to 24VDC 800mA)