CONCOA®

P2 400 Series Central Gas Manual Switchover Panel

Stainless Steel or Brass Barstock Regulator

For High Purity Gases

Description

The P2 Single Stage Central Gas Supply Panel is designed for primary pressure control of high purity (up to grade 6.0+), toxic, reactive, or corrosive gases from two sources such as cylinders or cylinder bundles.

Manufactured in an ISO 9001:2008 certified facility, each P2 panel is 100% Helium leak checked and cleaned for oxygen service.

Features

Both right and left inlets
Manual switchover for continuous supply

Metal to metal diaphragm seal
High leak integrity and no contamination

316L stainless steel convoluted diaphragm
Durable and diffusion resistant membrane

CAPSULE® seat with 10 micron filtration
Long service life and reliable performance

Stainless steel panel
Clean appearance and easy installation

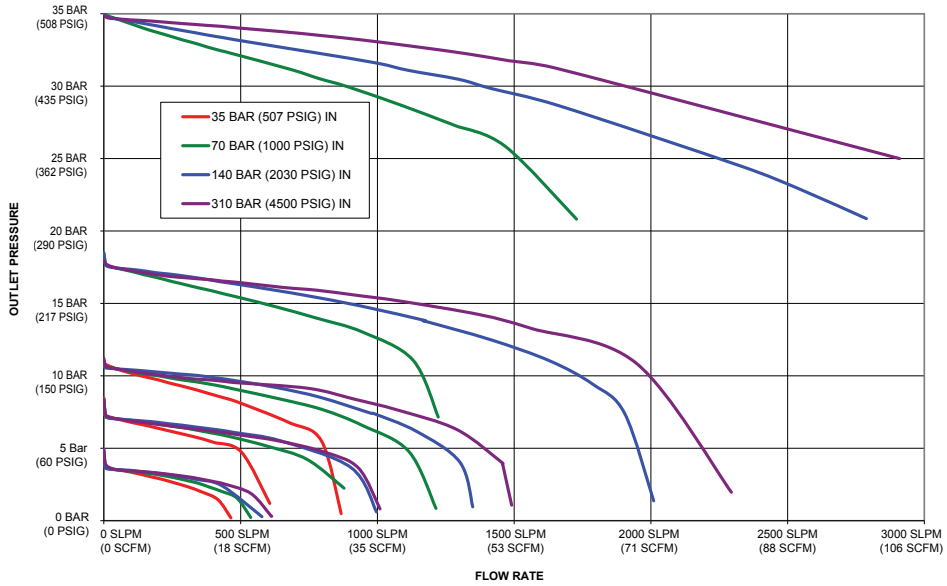
Integral process purge or inert gas micro-purge options
Maintain purity and safety during cylinder changes

Wide range of outlet pressure
Broad range of applications

Specifications

Maximum Inlet Pressures	Regulator: 310 bar (4500 psig) Diaphragm Valve: 240 bar (3500 psig)
Operating Temperature	-40˚C to 60˚C (-40˚F to 140˚F)
Helium Leak Integrity	$1x10^{-8}$ scc/sec
Gauges	53mm (2") diameter
CV:	0.1

Flow Data



Materials

		P2S	P2B
Regulator	Body	316L stainless steel barstock	Brass barstock
	Bonnet	Chrome-plated brass barstock	Chrome-plated brass barstock
	Seat	PCTFE	PCTFE
	Filter	10 micron 316 stainless mesh	10 micron sintered bronze
	Diaphragm	316L stainless steel	316L stainless steel
Diaphragm Valves	Body	316L stainless steel barstock	Brass barstock
(Optional)	Diaphragms	Elgiloy®	Elgiloy
	Seat	PCTFE	PCTFE
	Seals	Metal to metal	Metal to metal
Needle Valves	Body	316L stainless steel barstock	Brass barstock
(Optional)	Stem	316L stainless steel	316L stainless steel
	Packing	Glass-filled PTFE	Glass-filled PTFE
Gauges	Case	Stainless steel	Chrome-plated brass
	Stem	316L stainless steel	Nickel-plated brass
	Bourdon tube	316L stainless steel	Copper alloy
Pipe Fittings		316L stainless steel	Brass
Tube Fittings		316L stainless steel	316L stainless steel
Panel		2mm 304 stainless steel	2mm 304 stainless steel

P2 Ordering Information

P2 _ _ _ _ _ _ - 0 1 - _ _ _ _

Materials

B. Brass

S. Stainless steel

Max Outlet and Gauge*

1. 1 bar (15 psig)
-1-0-2 bar/-30-0-30 psig

2. 3.5 bar (50 psig)
-1-0-7 bar/-30-0-100 psig

3. 7 bar (100 psig)
-1-0-14 bar/-30-0-200 psig

4. 10 bar (150 psig)
-1-0-14 bar/-30-0-200 psig

5. 17 bar (250 psig)
0-27 bar/0-400 psig

6. 34 bar (500 psig)
0-70 bar/0-1000 psig

**Outlet gauge scales determined by inlet gauge*

Inlet Gauge

3. 0-270 bar/ 0-4000 psig

4. 0-40 bar/ 0-600 psig

5. 0-70 bar/ 0-1000 psig

6. 0-20 bar/ 0-300 psig

7. 0-27 bar/ 0-400 psig

8. 0-400 bar/ 0-6000 psig

A. 0-270 bar/ 0-4000 psig with pressure switch

B. 0-40 bar/ 0-600 psig with pressure switch

J. 0-400 bar/ 0-6000 psig with pressure switch

C. 0-28000 kPa/ 0-4000 psig

D. 0-4000 kPa/ 0-600 psig

E. 0-7000 kPa/ 0-1000 psig

F. 0-2000 kPa/ 0-300 psig

G. 0-2800 kPa/ 0-400 psig

H. 0-40000 kPa/ 0-6000 psig

Transducers

1. No inlet pressure transducer

A. Standard inlet pressure transducers with alarm

B. Standard inlet pressure transducers without alarm

C. Intrinsically safe pressure transducers with alarm

D. Intrinsically safe pressure transducers without alarm

Connection

-001. No inlet hose (1/4" NPT-F inlet)

-CON. Cylinder connection for inlet hose

Inlet Hoses

0. None

1. 600mm (24") armored stainless steel core

2. 900mm (36") armored stainless steel core

3. 1800mm (72") armored stainless steel core

4. 600mm (24") armored Monel® core

5. 900mm (36") armored Monel core

6. 1800mm (72") armored Monel core

7. 600mm (24") tethered stainless steel core

8. 900mm (36") tethered stainless steel core

9. 1800mm (72") tethered stainless steel core

A. 600mm (24") tethered Monel core

B. 900mm (36") tethered Monel core

C. 1800mm (72") tethered Monel core

Inlet Assembly

1. Regulator isolation diaphragm valves

2. Regulator isolation diaphragm valves and process purge outlet isolation diaphragm valves (1/4" NPT-F purge outlets)

3. Regulator isolation diaphragm valves and process purge outlet isolation needle valves (1/4" NPT-F purge outlet)

4. Regulator isolation diaphragm valves and process purge outlet isolation diaphragm valves with check valves (1/4" NPT-F purge outlet)

5. Regulator isolation diaphragm valves and process purge outlet isolation needle valves with check valves (1/4" NPT-F purge outlet)

6. Regulator isolation diaphragm valves, inert purge inlet isolation diaphragm valves, and inert purge outlet isolation diaphragm valves (1/4" NPT-F purge inlet and outlet)

8. Regulator isolation diaphragm valves, inert purge inlet isolation diaphragm valves, and inert purge outlet isolation diaphragm valves with check valves (1/4" NPT-F purge inlet and outlet)

Outlet

1. 1/4" NPT-F

2. Outlet diaphragm valve with 1/4" NPT-F

3. 1/4" compression tube fitting

4. 6mm compression tube fitting

5. Outlet diaphragm valve with 1/4" compression tube fitting

6. Outlet diaphragm valve with 6mm tube fitting

EXAMPLE

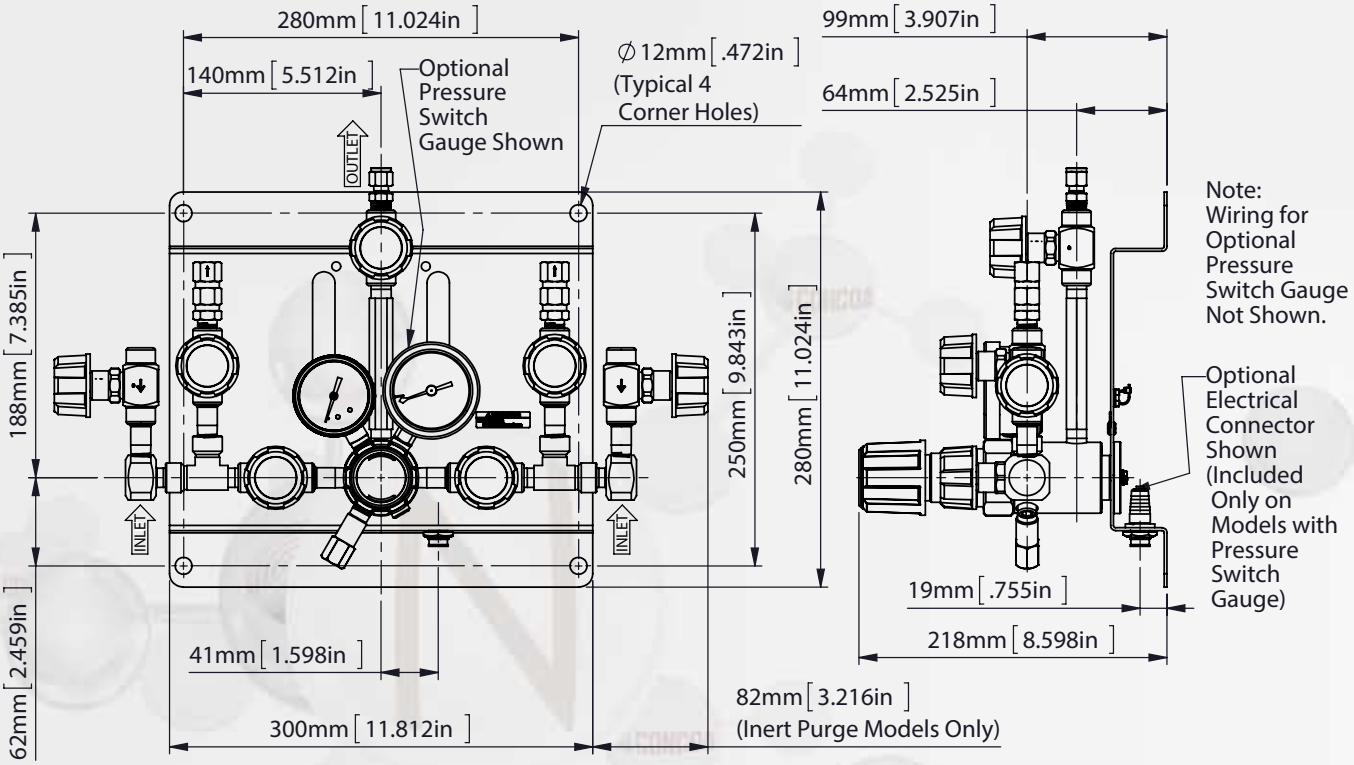
P2 S 4 3 2 4 0 - 0 1 - D 0 6 2

Stainless steel P2 assembly with 10 bar maximum outlet pressure; -1-0-14 bar/ -30-0-200 psig outlet gauge; 0-270 bar/4000 psig inlet gauge; regulator inlet isolation valves and process purge isolation diaphragm valves; 6mm compression tube fitting outlet; no inlet pressure transducers; and 900mm (36") length long armor-jacketed 316L stainless steel core flexible hoses with DIN 477 #6 cylinder connections.

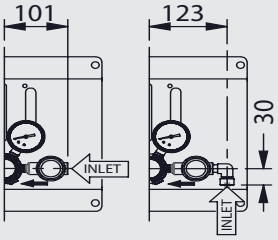
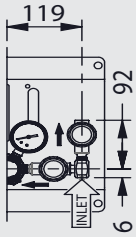
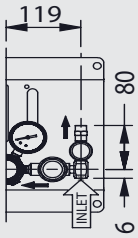
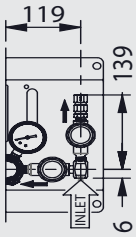
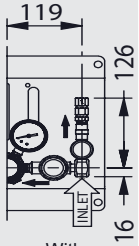
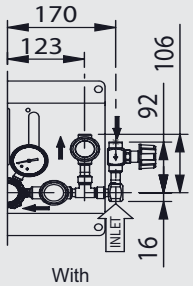
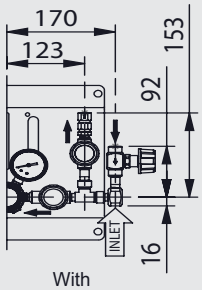
P2 Installation and Typical Configuration

TYPICAL SYSTEM - P2S1A851-01-0010 Shown:

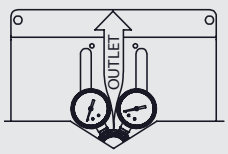
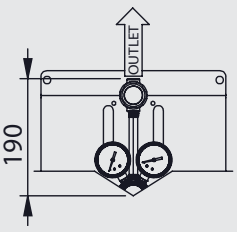
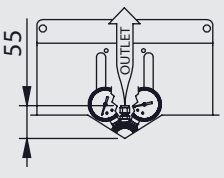
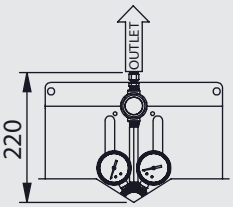
Dimensions shown are typical for All P2 series systems unless otherwise noted.
Dimensions are shown on one side only. Dimensions on opposite side are mirror image.



Inlet Assembly Options

1	2	3	4	5	6	8
						
With Diaphgram Valve Inlet, Without Hose	With Diaphgram Valve Inlet, With Hose	With Diaphgram Valve Process Gas Purge Inlet	With Needle Valve Process Gas Purge Inlet	With Diaphgram Valve Process Gas Purge Inlet and Check Valve	With Needle Valve Process Gas Purge Inlet and Check Valve	With Inert Gas Purge Inlet	With Inert Gas Purge Inlet and Check Valve

Outlet Options

1	2	3 or 4	5 or 6
			
ø1/4" NPT Outlet Port	Diaphgram Valve With ø1/4" NPT Outlet Port	Tube Fitting Outlet, ø1/4" or ø6mm	Diaphgram Valve With Tube Fitting Outlet, ø1/4" or ø6mm

Note: All inlet options use a 1/4" NPT female port. Right-hand inlets are shown. Left-hand inlets are mirror image. All dimensions are in mm.

SPF152B