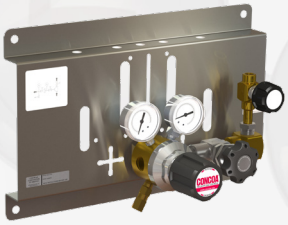
CONCOA®
PRECISION GAS CONTROLS



P3 High Flow Central Gas Supply Panel

Stainless Steel or Brass Barstock Regulator For High Purity Gases





Description

The P3 High Flow Central Gas Supply Panel is designed for primary pressure control from cylinder bundles of high purity (up to grade 6.0+), toxic, reactive, or corrosive gases.

Manufactured in an ISO 9001:2015 certified facility, each P3 panel is 100% Helium leak checked and cleaned for oxygen service.

Features

316L stainless steel convoluted diaphragm
Durable and diffusion resistant membrane

ISOFLOW technology
Constant delivery pressure at high flows

Stainless steel panel
Clean appearance and easy installation

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

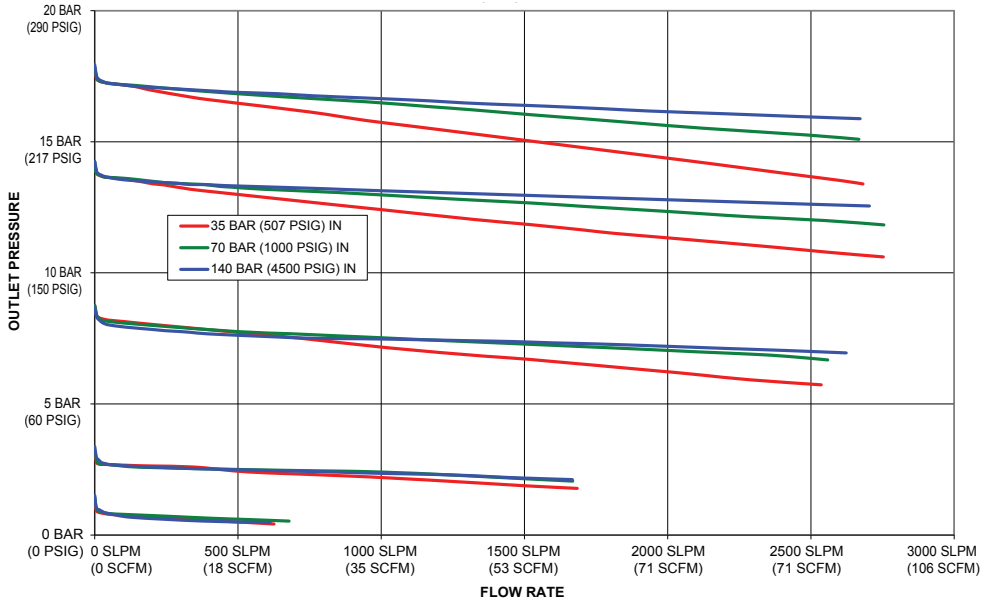
Pipe away relief valve
Safely vent gas

Wide range of outlet pressures
Broad range of applications

Specifications

Maximum Inlet Pressures	Regulator: 210 bar (3000 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	50mm (2") diameter
CV:	0.1

Flow Data



Materials

		P3S	P3B
Regulator	Body	316L stainless steel barstock	Brass barstock
	Bonnet	Chrome-plated die-cast zinc	Chrome-plated die-cast zinc
	Seat	PCTFE	PCTFE
	Filter	40-micron 316L stainless steel	40-micron 316L stainless steel
	Diaphragm	316L stainless steel	316L stainless steel
Diaphragm Valves	Body	316L stainless steel	Brass or 316L stainless steel
(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

P3 Ordering Information

P3 _ _ _ _ _ _ - 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 bar (40 psig)
-1-0-7 bar/-30-0-100 psig

3. 8 bar (120 psig)
-1-0-14 bar/-30-0-200 psig

4. 14 bar (200 psig)
0-27 bar/0-400 psig

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

**Outlet gauge scales determined by inlet gauge*

Inlet Gauge

3. 0-280 bar/ 0-4000 psig

4. 0-42 bar/ 0-600 psig

5. 0-70 bar/ 0-1000 psig

6. 0-21 bar/ 0-300 psig

7. 0-28 bar/ 0-400 psig

A. 0-280 bar/ 0-4000 psig with pressure switch

B. 0-42 bar/ 0-600 psig with pressure switch

C. 0-28,000 kPa/ 0-4000 psig

D. 0-4200 kPa/ 0-600 psig

E. 0-7000 kPa/ 0-1000 psig

F. 0-2100 kPa/ 0-300 psig

G. 0-2800 kPa/ 0-400 psig

Transducer

0. No inlet pressure transducer

A. Standard inlet pressure transducer with alarm

B. Standard inlet pressure transducer without alarm

C. Intrinsically safe pressure transducer with alarm

D. Intrinsically safe pressure transducer without alarm

Connection

-001. No inlet hose (1/2" NPT-F inlet)

-CON. Cylinder connection for inlet hose

Inlet Hoses

0. None

1. 610mm (24") armored stainless steel core

2. 914mm (36") armored stainless steel core

3. 1829mm (72") armored stainless steel core

4. 610mm (24") armored Monel® core

5. 914mm (36") armored Monel core

6. 1829mm (72") armored Monel core

7. 610mm (24") tethered stainless steel core

8. 914mm (36") tethered stainless steel core

9. 1829mm (72") tethered stainless steel core

A. 610mm (24") tethered Monel core

B. 914mm (36") tethered Monel core

C. 1829mm (72") tethered Monel core

Inlet Assembly

0* or K†. No valve

1* or A†. Regulator isolation diaphragm valve

2* or B†. Regulator isolation diaphragm valve and process purge outlet isolation diaphragm valve (1/4" NPT-F purge outlet)

3* or C†. Regulator isolation diaphragm valve and process purge outlet isolation needle valve (1/4" NPT-F purge outlet)

4* or D†. Regulator isolation diaphragm valve and process purge outlet isolation diaphragm valve with check valve (1/4" NPT-F purge outlet)

5* or E†. Regulator isolation diaphragm valve and process purge outlet isolation needle valve with check valve (1/4" NPT-F purge outlet)

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

8* or H†. Regulator isolation diaphragm valve, inert purge inlet isolation diaphragm valve, and inert purge outlet isolation diaphragm valve with check valve (1/4" NPT-F purge inlet and outlet)

*Right side inlet orientation

†Left side inlet orientation

Outlet

1. 1/2" NPT-F

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

3. 1/2" compression tube fitting

4. 12mm compression tube fitting

5. Outlet diaphragm valve with 1/2" compression tube fitting

6. Outlet diaphragm valve with 12mm tube fitting

EXAMPLE

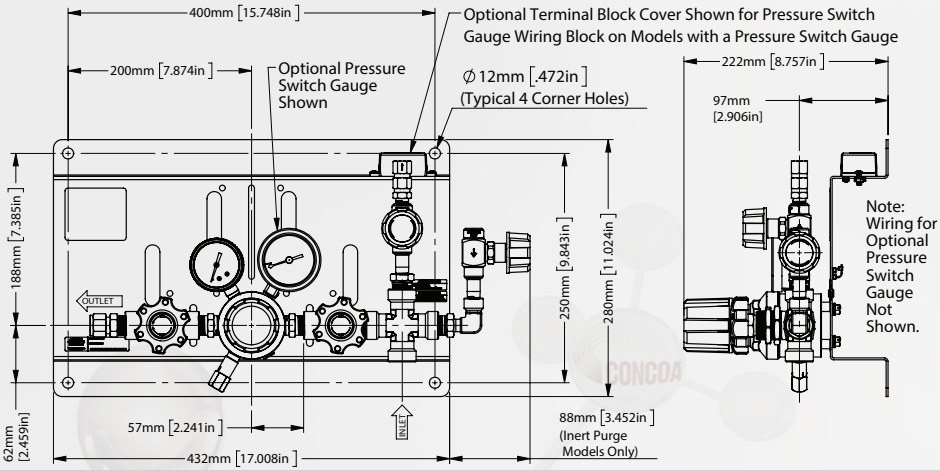
P3 S 4 3 2 4 0 - 0 1 - D 0 6 2

Stainless steel P3 assembly with 14 bar maximum outlet pressure; -1-0-14 bar/-30-0-200 psig outlet gauge; 0-280 bar/4000 psig inlet gauge; right hand inlet orientation; regulator isolation valve and process purge outlet isolation diaphragm valve; 12mm compression tube fitting outlet; no inlet pressure transducer; and a 914mm (36") length armor-jacketed 316L stainless steel core flexible hose with DIN 477 #6 cylinder connection.

P3 Installation and Typical Configuration

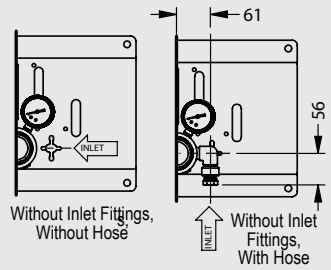
TYPICAL SYSTEM - P3S1A850-01-0010 Shown :

Dimensions Shown in this Detail are Typical for All P3 Series Systems Unless Otherwise Noted.
A Right-Hand Inlet Model is Shown. Left-Hand Inlet Model Dimensions are Mirror Image.
See other Details for Variable Dimensions.

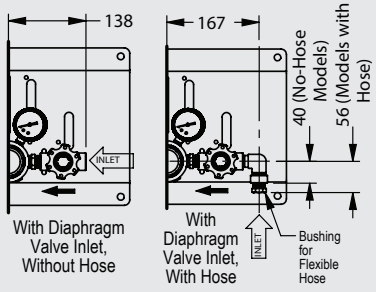


Inlet Assembly Options

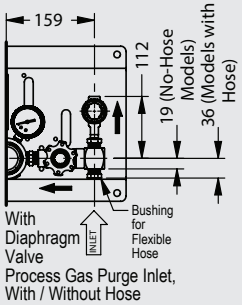
0* or K†



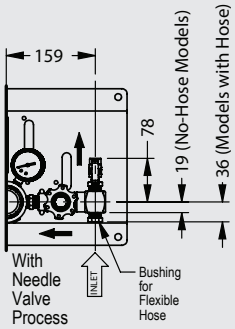
1* or A†



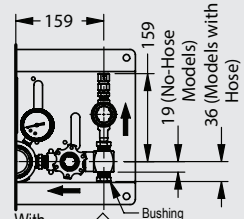
2* or B†



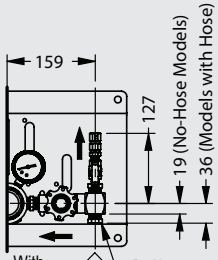
3* or C†



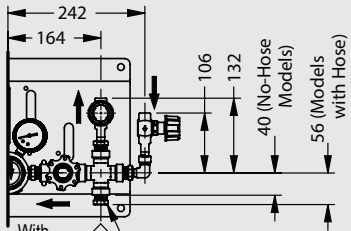
4* or D†



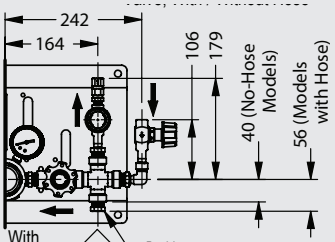
5* or E†



6* or F†

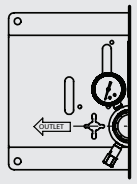


8* or H†

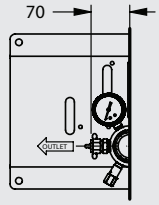


Outlet Options

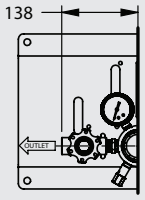
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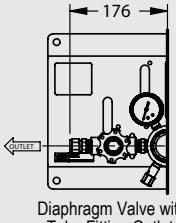
2



3 or 4



5 or 6



Note: Models without hose have a 1/2" NPT female port. Inlets and outlets for right-hand models are shown. Left-hand inlet models are mirror image. All dimensions are in mm.
*Right side inlet orientation †Left side inlet orientation