

Description

The P1 Single Stage Central Gas Supply Panel is designed for primary pressure control from single cylinders or cylinder bundles of high purity (up to grade 6.0+), toxic, reactive, or corrosive gases.

Manufactured in an ISO 9001:2008 certified facility, each P1 panel is 100% Helium leak checked and cleaned for oxygen service.

Features

Metal to metal seals

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 with optional piped-through outlet

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

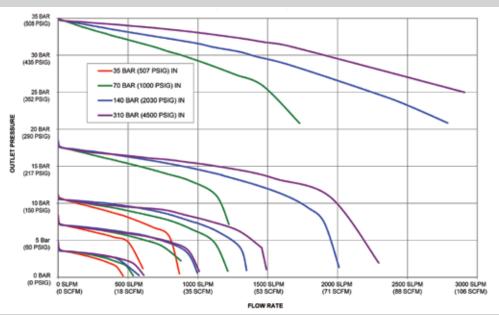
Broad range of applications



Specifications

Maximum Inlet Pressures	Regulator: 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

		P1S	P1B
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

PI Ordering Information

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

- 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

Transducer

- 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 (1/4" NPT-F inlet)
- **-CON.** Cylinder connection for inlet hose
- Inlet Hoses
- 0. None
- 1. 600mm (24") armored stainless steel
- 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

- 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* or A[†]. 1/4" NPT-F
- **2* or B**[†]. Outlet diaphragm valve with 1/4" NPT-F
- **3* or C**[†]. 1/4" compression tube fitting
- **4* or D**[†]. 6mm compression tube fitting
- **5* or E**[†]. Outlet diaphragm valve with 1/4" compression tube fitting
- **6* or F**[†]. Outlet diaphragm valve with 6mm tube fitting
- *Outlet from regulator
- *Outlet from top of panel (valve shipped separately for pipeline installation where applicable)

EXAMPLE

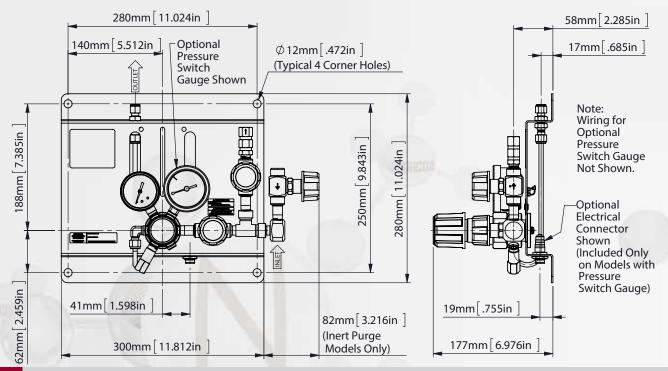
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Stainless steel P1 assembly with 10 bar maximum outlet pressure; -1-0-14 bar/-30-0-200 psig outlet gauge; 0-270 bar/4000 psig inlet gauge; right-hand inlet orientation; regulator inlet isolation diaphargm valve and process purge isolation valve; 6mm compression tube fitting outlet piped through the top of the panel; no inlet pressure transducer; and a 900mm (36") length armoriacketed 316L stainless steel core flexible hose with DIN 477 #6 cylinder connection

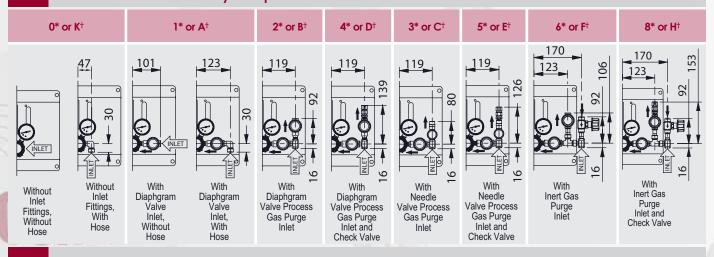
P1 Installation and Typical Configuration

TYPICAL SYSTEM - P1S1A8B1-01-0010 Shown:

Dimensions shown are typical for all P1 series systems unless otherwise noted. A right-hand inlet model is shown. Left-hand inlet model dimensions are mirror image.



Inlet Assembly Options



Outlet Options

