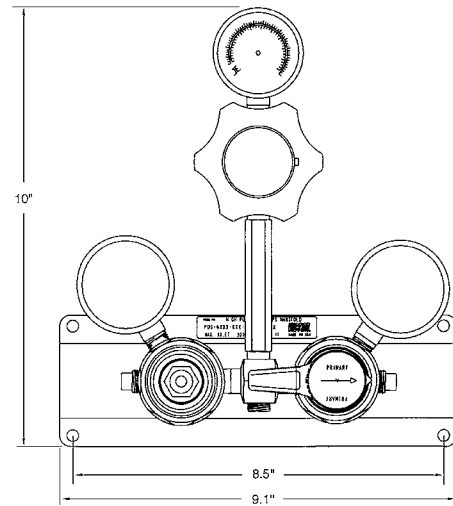
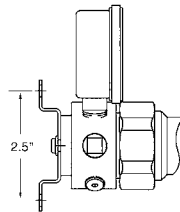


## PDS600 Switchover Manifold Brass & Stainless Steel

The **PDS600** is an automatic switchover manifold system that changes between a primary side, or bank, and the secondary side using the pressure differential between the two sides of high pressure gas supply.

The **PDS600** is designed to continuously supply the downstream process with high purity gas from two individual cylinders, or from two entire banks of cylinders manifolded together.

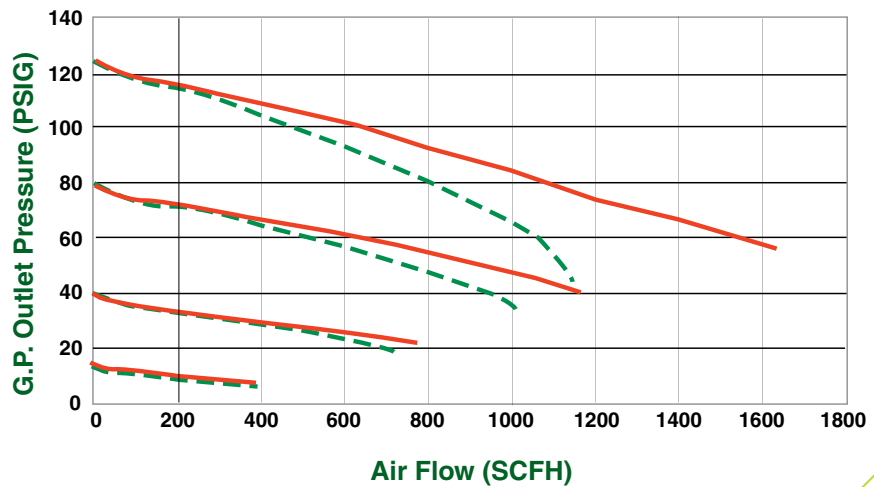
The **PDS600** is designed with an outlet regulator to maintain a constant downstream pressure. The PDS600 is available with brass or with stainless steel Barstock regulators for use with high purity or corrosive gases.



**PDS 600 Flow Data**

**Flow vs Outlet Pressure**  
Inlet pressure  
(Nitrogen @ 70°F)

2000 psig ————  
250 psig - - - - -



# PDS600

## Switchover Manifold Brass & Stainless Steel

### PDS600 SERIES

SWITCHOVER MANIFOLDS

#### FEATURES

- Metal-to-metal diaphragm seals
- Helium leak rate of  $1 \times 10^{-9}$  scc/sec.
- All high purity regulators are inboard leak checked with a helium mass spectrometer
- 100% Helium leak tested
- 2" dual scale gauges (psi/kpa)
- Cartridge-type seat assemblies with 10 micron inboard filter
- 180° lever with arrow indicates which side of the manifold is the active side
- Rotating captured vent for remote venting of process gases (optional)
- Regulator bodies are mounted on rear bracket
- Audible and visual alarms (optional)
- Control knob allows precise setting for maximum delivery and locking is easily attained by pressing in the cap

#### SPECIFICATION

Maximum inlet pressure	3000 psig
Maximum output flow rate	See Performance Data
Outlet Pressure ranges	15 (2-15 psig) 40 (2-40 psig) 80 (4-80 psig) 125 (5-125 psig)
Switchover Pressures	Right to Left Bank: 200 psig - Left to Right Bank: 165 psig
Inlet & Outlet ports	1/4" Female NPT
Temperature Operating Range	-40 to 140°F (-40 to 60°C)
Outlet pressure rise	PDS 600: None
Flow coefficient	Cv = 0.05
Weight	12 lbs. (5.4kg)

#### BRASS MODEL MATERIALS

Body	Brass Barstock
Spring housing cap	Nickel-Plated Brass
Diaphragm	316L Stainless Steel
Nozzle	Brass
Seat	PCTFE
Seals	Teflon
Poppet	Brass Barstock
Inboard filter	10 Micron Sintered Stainless Steel
Seat return spring	Stainless Steel
Pressure adjusting spring	Heat-Treated Spring Steel
Adjusting knob	Polypropylene

#### STAINLESS MODEL MATERIALS

Body	316L Stainless Steel Barstock
Spring housing cap	Nickel-Plated Brass
Diaphragm	316L Stainless Steel
Nozzle	316L Stainless Steel
Seat	PCTFE
Seals	Teflon
Poppet	316L Stainless Steel
Inboard filter	10 Micron Sintered Stainless Steel
Seat return spring	316L Stainless Steel
Pressure adjusting spring	Heat-Treated Spring Steel
Adjusting knob	Polypropylene

### MODEL NO. SELECTOR GUIDE

## PDS600 SERIES MODEL NUMBER SYSTEM

**PDS600 - XXX - XXX - XXX - XXX - XX**

CENTRE SECTION	DELIVERY	HEADER RIGHT	HEADER LEFT	CGA INLET	STAINLESS STEEL PIGTAIL
<b>PDS600B</b>	15	1 RW	1 LW	<b>Brass</b>	<b>24" Flex</b>
Brass	40	2 RW	2 LW	320, 346, 350,	<b>36" Flex</b>
<b>PDS600S</b>	80	3 RW	3 LW	540, 580, 590	See note†
Stainless Steel	125	4 RW	4 LW	<b>Stainless Steel</b>	
		6 RW	6 LW	240, 330, 660, 705	
		See note*	See note*		

**Ordering Examples:** **PDS600B-40-1 RW-2 LW-350-36**  
 PDS600 manifold w/40 psi delivery pressure, 1 header right, 2 headers left, CGA 350 brass inlet and 36" flex stainless steel pigtail.

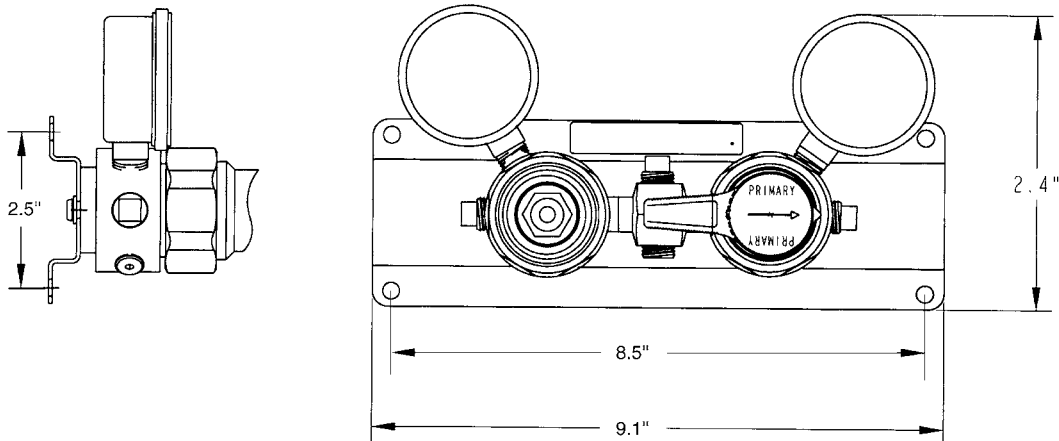
\* Optional header configurations are available.  
 † Standard pigtails are stainless steel lined and include a check valve.

## PDS500 Switchover Manifold Brass & Stainless Steel



The **PDS500** is an automatic switchover manifold system that uses the pressure differential between each side, or bank, of the manifold to determine which side is active. The PDS500 is designed to continuously supply the downstream process with high purity gas from two individual cylinders, one primary and one secondary, or from a bank of cylinders manifolded together.

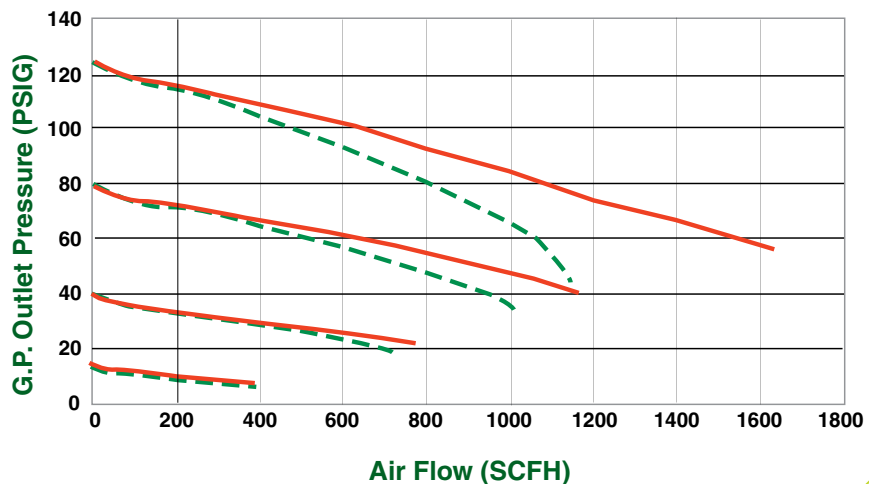
The **PDS500** is available with brass or stainless steel Barstock regulators for use with high purity or corrosive gases.



**PDS 500 Flow Data**

**Flow vs Outlet Pressure**  
Inlet pressure  
(Nitrogen @ 70°F)

2000 psig ————  
250 psig - - - - -



# PDS500

## Switchover Manifold Brass & Stainless Steel

### PDS500 SERIES

SWITCHOVER MANIFOLDS

#### FEATURES

Metal-to-metal diaphragm seals
Helium leak rate of $1 \times 10^{-9}$ scc/sec.
All high purity regulators are inboard leak checked with a helium mass spectrometer
100% Helium outboard leak tested
2" dual scale gauges (psi/kpa)
Cartridge-type seat assemblies with 10 micron inboard filter
2" brass Barstock body regulators with ports for high and low pressure transducers alarm switches
180° lever with arrow indicates which side of the manifold is the active side
360° rotating captured vent for remote venting of process gases (optional)
Regulator bodies are mounted on rear bracket
Audible and visual alarms (optional)

#### SPECIFICATION

Maximum inlet pressure	3000 psig
Maximum output flow rate	See Performance Data
Outlet Pressure ranges	Right as primary 250 psig - Left as primary 165 psig
Switchover Pressures	Right to Left Bank: 200 psig - Left to Right Bank: 165 psig
Inlet & Outlet ports	1/4" Female NPT
Temperature Operating Range	-40 to 140°F (-40 to 60°C)
Outlet pressure rise	<0.53 psig/100 psig inlet decay
Flow coefficient	$C_v = 0.05$
Weight	8.5 lbs. (3.8kg)

#### BRASS MODEL MATERIALS

Body	Chrome-Plated Brass Barstock
Spring housing cap	Chrome-Plated Brass
Diaphragm	316L Stainless Steel
Nozzle	Brass Barstock
Seat	PCTFE
Seals	Teflon
Poppet	Brass Barstock
Inboard filter	10 Micron Sintered Stainless Steel
Seat return spring	316L Stainless Steel
Pressure adjusting spring	Heat-Treated Spring Steel
Adjusting knob	Polypropylene

#### STAINLESS MODEL MATERIALS

Body	316L Stainless Steel Barstock
Spring housing cap	Chrome-Plated Brass
Diaphragm	316L Stainless Steel
Nozzle	316L Stainless Steel
Seat	PCTFE
Seals	Teflon
Poppet	316L Stainless Steel
Inboard filter	10 Micron Sintered Stainless Steel
Seat return spring	316L Stainless Steel
Pressure adjusting spring	Heat-Treated Spring Steel
Adjusting knob	Polypropylene

### MODEL NO. SELECTOR GUIDE

## PDS500 SERIES MODEL NUMBER SYSTEM

**PDS500 - XXX - XXX - XXX - XXX - XX**

CENTRE SECTION	DELIVERY	HEADER RIGHT	HEADER LEFT	CGA INLET	STAINLESS STEEL PIGTAIL
<b>PDS600B</b>	<b>15</b>	<b>1 RW</b>	<b>1 LW</b>	<b>Brass</b>	<b>24" Flex</b>
Brass	40	2 RW	2 LW	320, 346, 350,	36" Flex
<b>PDS600S</b>	<b>80</b>	<b>3 RW</b>	<b>3 LW</b>	540, 580, 590	See note†
Stainless Steel	125	4 RW	4 LW	<b>Stainless Steel</b>	
		6 RW	6 LW	240, 330, 660, 705	
		See note*	See note*		

#### Ordering Examples:

**PDS600B-40-1 RW-2 LW-350-36**  
PDS600 manifold w/40 psi delivery pressure,  
1 header right, 2 headers left, CGA 350 brass  
inlet and 36" flex stainless steel pigtail.

\* Optional header configurations are available.

† Standard pigtails are stainless steel lined and include a check valve.

## VHP Manifolds

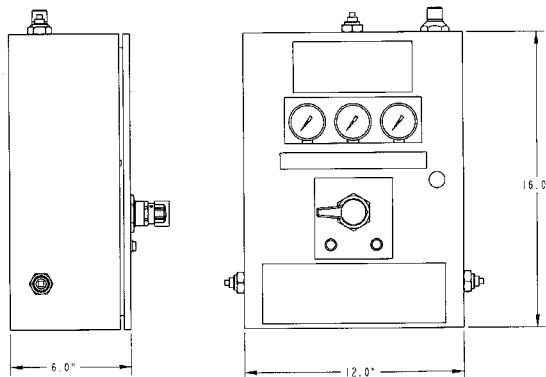
### High Purity Switchover Manifolds

#### VHP2100 & VHP2000 Manifold Systems

The VHP2100 is a deluxe manifold system for high purity gases. The system is highly recommended for laboratory and process plant applications where depletion of gas supply is unacceptable.

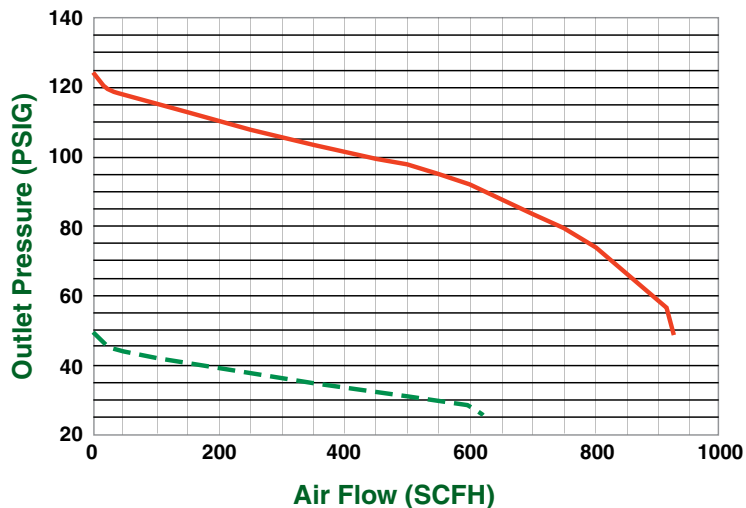
The VHP2100 is designed with an outlet regulator to maintain a constant downstream pressure. The system is available in brass or 316L stainless steel. In-service and reserve indicator lights are standard on the VHP2100 manifold.

The VHP2000 manifold is the same manifold without the in-service and reserve indicator lights.



**Flow vs Outlet Pressure**  
**Inlet pressure**  
**(Nitrogen @ 70°F)**

2000 psig ————  
 250 psig - - - - -



# VHP Manifolds

## High Purity Switchover Manifolds

### VHP MANIFOLDS

#### FEATURES

- 500 Series Barstock regulators - High Purity for critical applications
- In-service and reserve indicator lights standard†
- Metal-to-metal seals for high helium leak integrity
- Adjustable line regulator for constant delivery
- Line regulator enclosed in box for tamper - resistant protection
- Easy 180° lever to select primary gas source
- VHP2100 Model incorporates pressure switches for remote alarm activation to indicate gas depletion†
- † VHP2100 model only

#### SPECIFICATION

Maximum inlet pressure	3000 psig
Outlet pressure ranges	15 (2-15 psig) 40 (2-40 psig) 80 (4-80 psig) 125 (5-125psig)
Switchover Pressures	Right to Left Bank: 200 psig Left to Right Bank: 165 psig
Inlet & outlet ports	1/4" NPT (F)
Temperature operating range	-40 to 140°F (-40 to 60°C)
Outlet pressure rise	None
Flow coefficient	C <sub>v</sub> = 0.05
Weight	30 lbs

#### BRASS MODEL MATERIALS

Body	Brass Barstock
Spring housing cap	Nickel-Plated Brass
Diaphragm	316L Stainless Steel
Nozzle	Brass
Seat	PCTFE
Seals	Teflon
Poppet	Brass Barstock
Inboard filter	10 Micron Sintered Stainless Steel
Seat return spring	316L Stainless Steel
Pressure adjusting spring	Heat-Treated Spring Steel
Adjusting knob	Polypropylene
Enclosure	16 Gauge Powder Coated
Tubing	1/4" Copper
Fittings	Brass

#### STAINLESS MODEL MATERIALS

Body	316L Stainless Steel Barstock
Spring housing cap	Nickel-Plated Brass
Diaphragm	316L Stainless Steel
Nozzle	316L Stainless Steel
Seat	PCTFE
Seals	Teflon
Poppet	316L Stainless Steel
Inboard filter	10 Micron Sintered Stainless Steel
Seat return spring	316L Stainless Steel
Pressure adjusting spring	Heat-Treated Spring Steel
Adjusting knob	Polypropylene
Enclosure	16 Gauge Powder Coated
Tubing	1/4" Stainless Steel
Fittings	Stainless Steel Tube

SWITCHOVER MANIFOLDS

### MODEL NO. SELECTOR GUIDE

## VHP MANIFOLD MODEL NUMBER SYSTEM

**XXX - PDS500 - XXX - XXX - XXX - XX**

CGA INLET	CENTRE POSITION	DELIVERY PRESSURE	HEADER RIGHT	HEADER LEFT	STAINLESS STEEL PIGTAIL
<b>Brass</b>	<b>VHP2000B</b>	<b>15</b>	<b>1 RW</b>	<b>1 LW</b>	<b>24" Flex</b>
320, 346, 350, 540, 58, 590	Brass	40	2 RW	2 LW	36" Flex
<b>Stainless Steel</b>	<b>VHP2000S</b>	<b>80</b>	<b>3 RW</b>	<b>3 LW</b>	See note†
240, 330, 660, 705	Stainless Steel	125	4 RW	4 LW	
	<b>VHP2100B</b>	<b>125</b>	<b>4 RW</b>	<b>4 LW</b>	
	Brass	300	6 RW	6 LW	
	<b>VHP2100S</b>		<b>See note*</b>	<b>See note*</b>	
	Stainless Steel				

\* Optional header configurations are available.

† Standard pigtails are stainless steel lined and include a check valve.