

# Pneumatic Pressure Controllers

## PP901; PP902 Pressure Reducing Valves



Used to control the pressure of the air delivered to pneumatic control systems. Models available for single-pressure systems or two-pressure systems (Day/Night or Summer/Winter) requiring two independently regulated pressure settings. Dual-pressure units switch from the lower settings to the higher settings when main air is applied to the pilot port. Models also available including a sub-micron filter assembly and pressure gauges. Replacement devices are available for Johnson, Powers, Robertshaw, Barber-Colman and older Honeywell pressure reducing valves.

- Built-in adjustable safety relief valve for limiting downstream pressure.
- For two-pressure models: Pressure changes accomplished with manual switch or automatically with electric pneumatic switch.
- Adjustable stops for desired settings.

**Application Type:** Pressure Reducing

**Connection Size:** Inlet and out air: 1/4 in. NPT (female) Air gage: 1/8 in. NPT (female)

**Mounting:** Bracket furnished

**Accessories:**

**305917**-2 in. diameter, 1/4 NPT center stem back mount Pressure Indicating gauge (0 to 160 psi scale) with  $\pm 3\%$  accuracy

**804191E**-2-1/2 in. diameter, panel-mounted Pneumatic Pressure Indicating Gauge (0 to 160 psi), 1/8 in. NPT connection,  $\pm 3\%$  accuracy

**305965**-1-1/2 in. diameter, 1/8 NPT center stem back mount Pressure Indicating gauge (0 to 30 psi scale) with  $\pm 4\%$  accuracy

**Replacement Parts:**

**316203A**-Pressure Regulator Valve Assembly for PP901A; PP902A, C

**316134B**-PP901A & B Diaphragm Repair Kit

**14004203-001**-Filter cartridge kit for PP902C and PP902D.

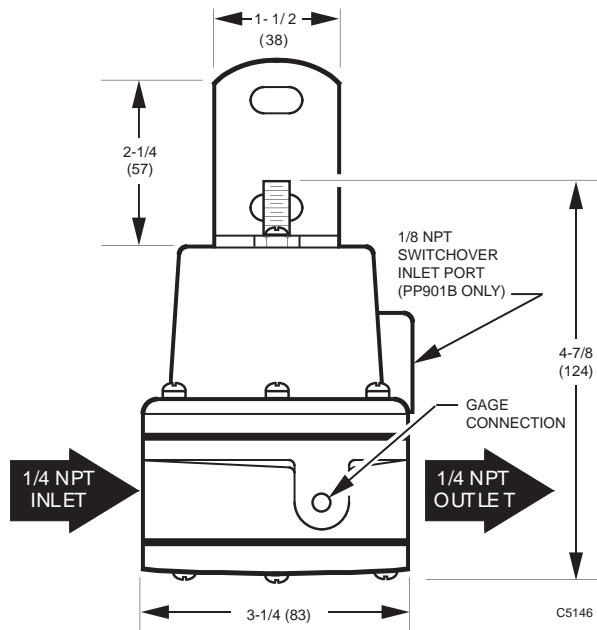
**14004205-002**-Filter Station Assembly for PP901, PP902A or B

**14003121-002**-Filter for PP902A or B

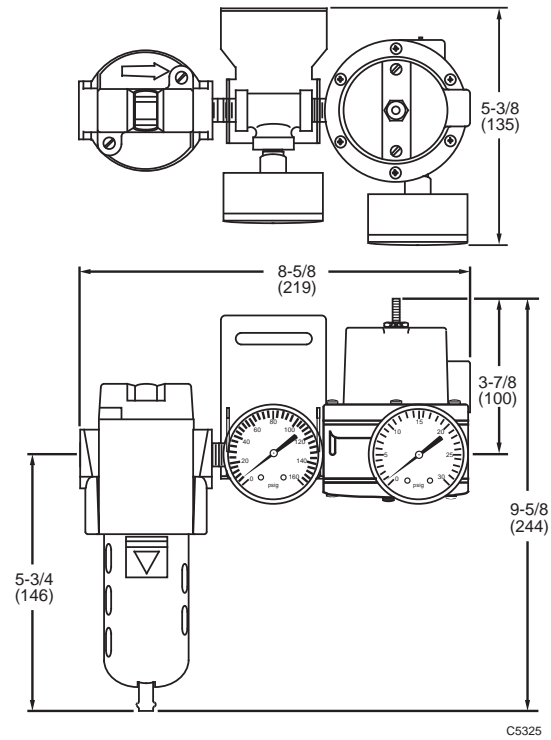
Product Number	Inlet Pressure Range		Output Pressure Range		Description	Includes
	(psi)	(kPa)	(psi)	(kPa)		
PP901A1004/U	45 to 150 psi	310 to 1034 kPa	primary pressure: adj.0 to 25 psi.	primary pressure: adj.0 to 172 kPa.	High Pressure Diaphragm Operated Reducing Valve with Built-in Adjustable Relief Valve for Single Pressure Systems. Includes Mounting Bracket and Gage Taps But No Gages.	Gage tapping to measure the regulated pressure.
PP901B1002/U	45 to 150 psi	310 to 1034 kPa	primary pressure: adj.0 to 25 psi; secondary pressure: adj. 0 to 5 psi above primary rating	primary pressure: adj.0 to 172 kPa; secondary pressure: adj. 0 to 34kPa above primary setting.	High Pressure Diaphragm Operated Reducing Valve with Built-in Adjustable Relief Valve for Dual Pressure Systems. Includes Mounting Bracket and Gage Taps But No Gages.	Gage tapping to measure the regulated pressure.
PP902C1009/U	45 to 150 psi	310 to 1034 kPa	primary pressure: adj.0 to 25 psi	primary pressure: adj.0 to 172 kPa.	Pressure Reducing Valve for Single Pressure Systems, consists of a PP901A Valve, a sub-micron filter station, 2 psig gages, Interconnecting Pipe Fittings, and a Mounting Bracket	Submicron filter assembly and two psig gages.
PP902D1007/U	45 to 150 psi	310 to 1034 kPa	primary pressure: adj.0 to 25 psi; secondary pressure: adj. 0 to 5 psi above primary rating	primary pressure: adj.0 to 172 kPa; secondary pressure: adj. 0 to 34kPa above primary setting.	Pressure Reducing Valve for Dual Pressure Systems, consists of a PP901B Valve, a sub-micron filter station, 2 psig gages, Interconnecting Pipe Fittings, and a Mounting Bracket	Submicron filter assembly and two psig gages.

# Pneumatic Pressure Controllers

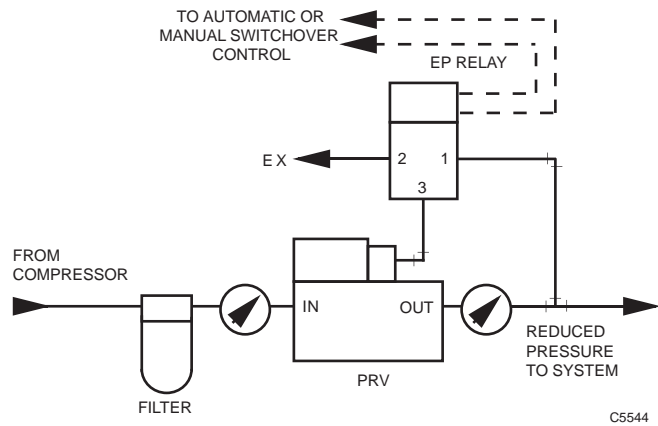
PP901 Dimensions in inches (millimeters)



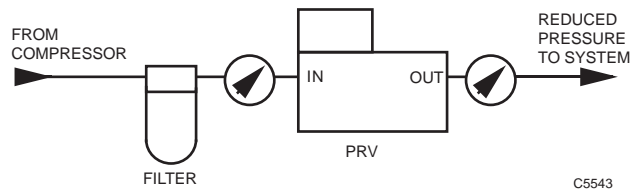
PP902 Dimensions in inches (millimeters)



PP902D Typical Operation



PP902C Typical Operation



# Pneumatic Pressure Controllers

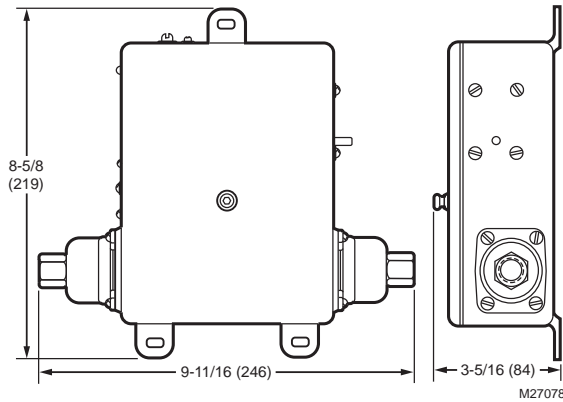
## PP903 Pneumatic Differential Pressuretrol



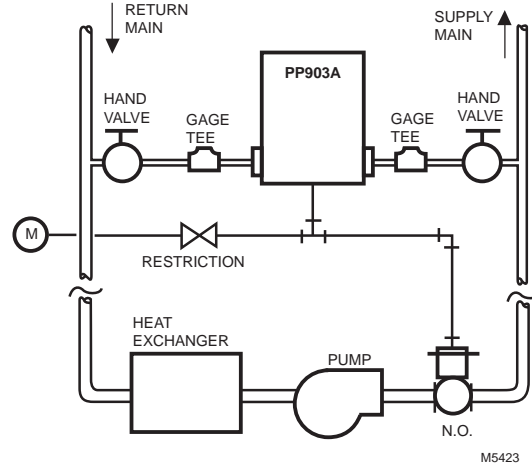
One-pipe, pressure operated device used to provide proportional control of pneumatic valve or damper actuators by varying the pressure to the actuators in relation to the pressure difference between two separate water pressures. Replacement devices are available for Johnson, Powers, Robertshaw, and older Honeywell pneumatic pressure controllers.

- Easily accessible adjustments.
- Direct Acting (DA) or Reverse Acting (RA) setting.
- Mounting lugs for quick mounting.

Dimensions Diagram



PP903A Typical Piping



**Application Type:** Differential Pressure  
**Action:** Reverse Acting, Direct Acting  
**Connection Size:** Input: 1/4 in. NPT; Branch Line: 1/8 in. NPT  
**Pressure Range:** 0 to 300 psi (0 to 2068 kPa)  
**Approximate Throttling Range, Midscale (max.):** 25 psi (172 kPa)  
**Mounting:** Lugs for 3-point surface mounting

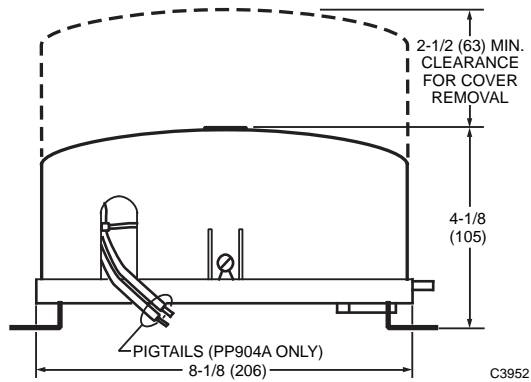
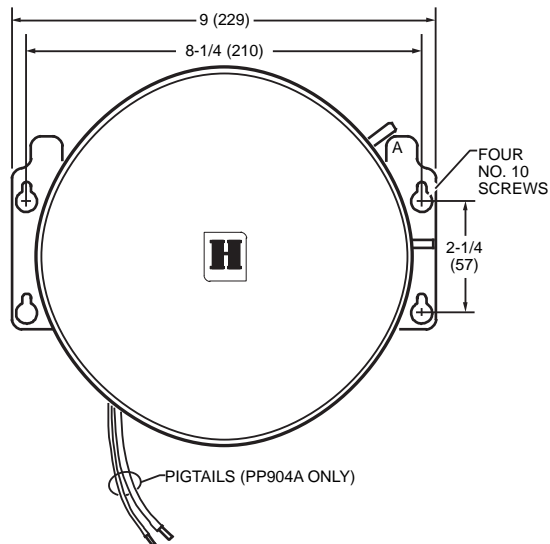
Product Number	Actuator Force		Maximum Operating Pressure		Differential Pressure Range	
	(psi)	(kPa)	(psi)	(kPa)	(psi)	(kPa)
PP903A1036/U	7.5 psi	52 kPa	18 psi	124 kPa	5 to 65 psi	34 to 448 kPa

# Pneumatic Pressure Controllers

## PP904 Static Pressure Regulators



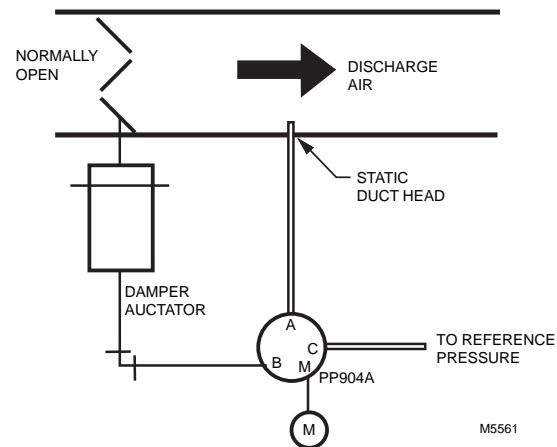
Dimensions Diagram



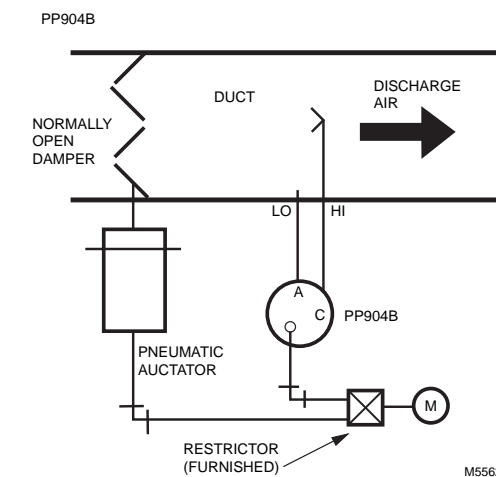
One- or two-pipe, direct- or reverse-acting, low- or high-capacity controller used with pneumatic actuators to regulate static or differential pressure in central fan installations. Replacement devices are available for Johnson, Powers, Robertshaw, Barber-Colman, and older Honeywell devices.

- Adjustable setpoint and throttling range (Zero and span).
- Direct Acting (DA) and Reverse Acting (RA).
- Sharp-barb, push-on connectors for plastic tubing.
- Field calibration possible.

PP904A Typical Piping



PP904B Typical Piping



**Application Type:** Static or Differential Pressure  
**Action:** Reverse Acting, Direct Acting  
**Airflow Usage:** 0.022 scfm (10.0 mL/s) at 18 psi (124 kPa)  
**Connections:** Main: Sharp-barbed fittings for 1/4 in. diameter tubing;  
 Branch: Sharp-barbed fittings for 5/32 in. diameter tubing  
**Mainline Air Pressure (min.):** 16 psi (112 kPa)  
**Mainline Air Pressure (max.):** 25 psi (175 kPa)  
**Throttling Range (in. wc):** 0.03 to 0.5 in wc (adjustable)  
**Maximum Safe Static Pressure:** 28 in. wc (7 kPa)  
**Mounting:** Duct mount  
**Temperature Range:** 40 F to 120 F (5 C to 50 C)

**Accessories:**  
**14004238-001**-Static Pressure Duct Head for 1/4 in., 6 mm diameter Plastic Tubing  
**301298B**-Outdoor Static Pressure Head

Product Number	Number of Pipes	Maximum Operating Pressure		Setpoint Range		Throttling Range (in. wc)	Comments
		(psi)	(kPa)	(in. wc)	(kPa)		
PP904A1035/U	2	25 psi	170 kPa	0 to +/-8 in. wc (adjustable)	0 to +/-2 kPa (adjustable)	0.03 to 0.5 in wc (adjustable)	High capacity branchline pressure
PP904B1009/U	1	25 psi	170 kPa	0 to +/-8 in. wc (adjustable)	0 to +/-2 kPa (adjustable)	0.06 to 0.5 in. wc (adjustable)	Low capacity branchline pressure