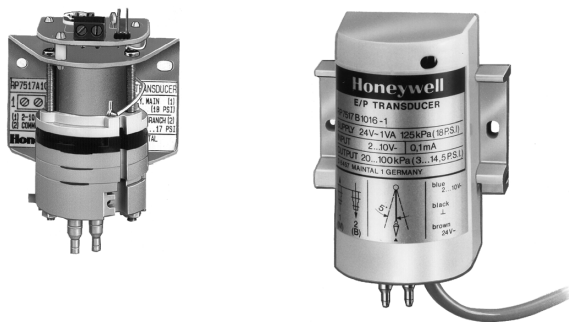


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Pneumatic Transducer

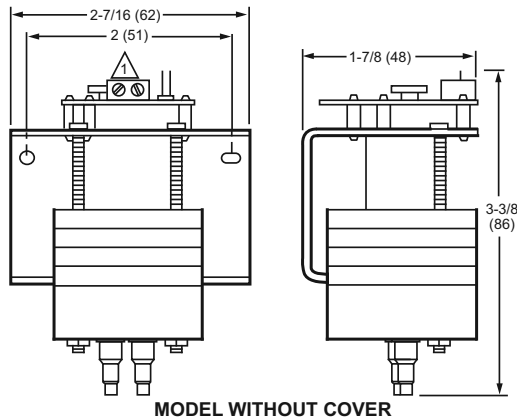
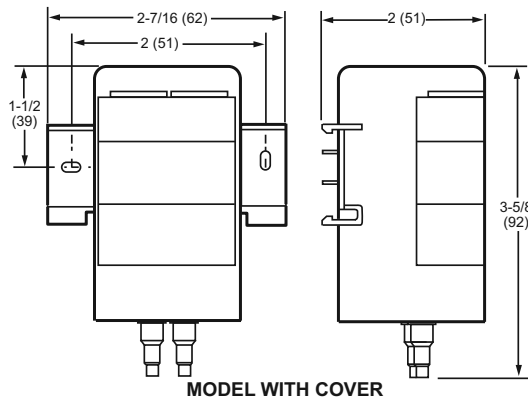
RP7517 Electronic-Pneumatic Transducer



Electronic-Pneumatic Transducers are used in electronic-pneumatic control systems to convert a proportional electric output signal from a controller into a direct-acting, proportional pneumatic signal.

- Screw mounting or snap rail (models with cover).
- Factory calibrated.
- Dual barb fittings.
- High accuracy.

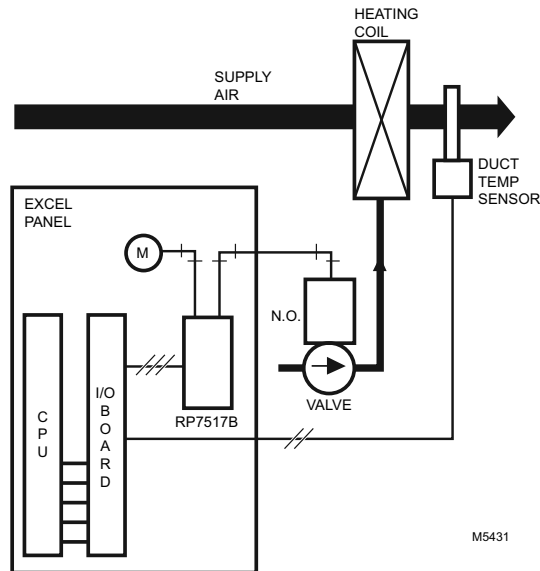
Dimensions in inches (millimeters)



1/2" TERMINALS ON RP7517A1017
3 TERMINALS ON RP7517B1024

M13904

RP7517 Typical Piping/Wiring



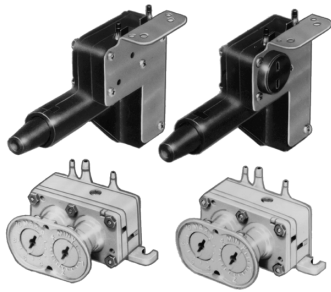
M5431

Application: Electric to pneumatic Transducer
Action: Direct Acting
Airflow Usage: 0.025 scfm (117mL/s)
Connections: Dual barb-fittings for 1/4 in. or 5/32 in. O.D. plastic tubing
Maximum Operating Temperature: 131 F (55 C)
Maximum Operating Pressure: 30 psi (205 kPa)
Pressure Ranges: 0 to 18 psi (0 to 125 kPa)
Nominal High End: 16 psi with 18 psi main pressure at 12 Vdc (110 kPa with 125 kPa main pressure at 12 Vdc)
Nominal Low End: 0.5 psi at 0 Vdc (3.5 kPa at 0 Vdc)
Output Pressure Range: 3 to 15 psi (21 to 103 kPa)
Capacity: 0.45 scfm (211 mL/s)
Humidity Ratings: 5 to 95% RH

Product Number	Electrical Connections	Input Signal	Power Consumption	Voltage	Description	Includes
RP7517A1009	30 in. (762 mm) lead wire	2 to 10 Vdc	16mA at 12 Vdc	Powered by Control signal	Electronic Pneumatic Transducer with direct action and 2 to 10 vdc input signal. Powered by control signal.	With cover, without internal power supply (2-wire)
RP7517A1017	screw terminals for 14 to 22 gage wire	2 to 10 Vdc	16mA at 12 Vdc	Powered by Control signal	Electronic Pneumatic Transducer with direct action and 2 to 10 vdc input signal. Powered by control signal	Without cover, without internal power supply for panel mounting (2 wire)
RP7517B1016	30 in. (762 mm) lead wire	2 to 10 Vdc at 0.1 mA max	1.7 vA	24 Vac external transformer	Electronic Pneumatic Transducer with direct action and 2 to 10 Vdc at 0.1 mA max input signal. External transformer required.	With cover, external transformer required, 24 Vac, 50/60 Hz, (3 wire)
RP7517B1024	screw terminals for 14 to 22 gage wire	2 to 10 Vdc at 0.1 mA max	1.7 vA	24 Vac external transformer	Electronic Pneumatic Transducer with direct action and 2 to 10 Vdc at 0.1 mA max input signal. External transformer required.	Without cover, external transformer required, 24 Vac, 50/60 Hz, (3 wire)

Velocity Sensors/Controllers

CP980 Velocitrol Velocity Sensor/Controller

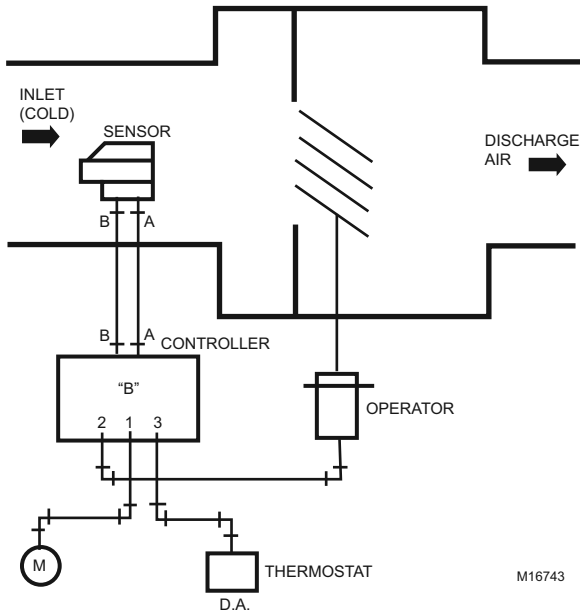


An ultra-sensitive air velocity sensor and pneumatic controller, control pneumatic damper actuators in heating and air conditioning systems to provide constant air velocity in the duct regardless of the static pressure.

- State-of-the-art design provides reliable operation.
- Not position sensitive.
- Direct Acting (DA) and Reverse Acting (RA) models are available.
- Insensitive to static pressure changes.
- Accurate control throughout entire velocity range.
- Graduated scales for minimum and maximum velocity adjustments.
- Velocity reset by thermostat demand.
- Adaptable to many terminal unit control strategies.

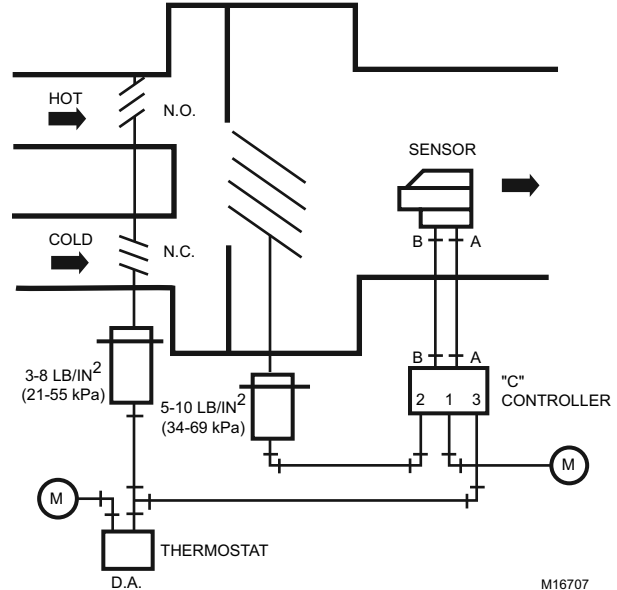
Controllers

Single Duct, Variable Constant Volume Application



M16743

Dual Duct, Variable Constant Volume Application



M16707

Dimensions, Approximate: Controller: 1 3/4 in. high x 3 1/4 in. wide x 2 3/8 in. deep / Sensor: 3 3/16 in. high x 1 3/4 in. wide x 4 3/16 in. long with orifice and 3 3/8 in. long without orifice
(Controller: 44 mm high x 83 mm wide x 60 mm deep / Sensor: 81 mm high x 45 mm wide x 107 mm long with orifice and 86 mm long without orifice.)

Airflow Usage: 0.029 scfm (13.7 mL/s), includes supply for bleed type thermostats for type B, does not include thermostat air for type C controller

Maximum Safe Operating Pressure: 30 psi (207 kPa)

Mainline Air Pressure (min): 18 psi (124 kPa)

Nominal Mainline Air Pressure: 20 psi (138 kPa)

Remote Sensor: Yes

Temperature Range: 40 F to 130 F (5 C to 55 C)

Operating Humidity Range: 5 to 95% RH

Product Number	Application	Action	Control Range		Reset Pressure Range		Comments
			(fpm)	(m/s)	(psi)	(kPa)	
CP980C1065	Velocitrol Air Velocity Sensor B Type	Direct, non-sequencing, normally open	500 fpm up to 3500 fpm by changing orifice	2.5 m/s up to 17.8 m/s by changing orifice	1 to 15 psi	7 to 103 kPa	For normally open damper and one-pipe thermostat
CP980D1063	Velocitrol Air Velocity Sensor B Type	Reverse, non-sequencing, normally closed	500 fpm up to 3500 fpm by changing orifice	2.5 m/s up to 17.8 m/s by changing orifice	1 to 15 psi	7 to 103 kPa	For normally closed damper and one-pipe thermostat
CP980E1060	Velocitrol Air Velocity Sensor C Type	Direct, sequencing, normally open	500 fpm up to 3500 fpm by changing orifice	2.5 m/s up to 17.8 m/s by changing orifice	9 to 15 psi	62 to 103 kPa	For normally open damper and two-pipe thermostat
CP980F1068	Velocitrol Air Velocity Sensor C Type	Reverse, sequencing, normally closed	500 fpm up to 3500 fpm by changing orifice	2.5 m/s up to 17.8 m/s by changing orifice	9 to 15 psi	62 to 103 kPa	For normally closed damper and two-pipe thermostat

Velocity Sensors/Controllers

CP980C,D,E, and F Cross-Reference Table

Current Order Number (Less Orifice)	Orifice Order No.	Velocity Range ft/min (m/s)	Orifice Set	Replaces Honeywell		
				Original Set Less Orifice	Interim Matched Set (Less Orifice)	Matched Set (Includes Orifice)
CP980C1065	None	500 (2.5)	None	—	—	—
	14003642-002	750 (3.8)	Green			CP980C1016
	14003642-003	1500 (7.6)	White			CP980C1024
	14003642-004	2000 (10.2)	Blue			CP980C1032
	14003749-001	2500 (12.7)	Black			CP980C1040
	14003749-002	3500 (17.8)	Gray			CP980C1057
CP980D1063	None	500 (2.5)	None	CP980A1002/ RP980A1006 or CP980A1002/ RP980B1004	CP980B1000 or CP980B1018 CP980B1034	— CP980D1014 CP980D1022 CP980D1030 CP980D1048 CP980D1055
	14003642-002	750 (3.8)	Green	CP980A1010/ or CP980B1042		
	14003642-003	1500 (7.6)	White			
	14003642-004	2000 (10.2)	Blue			
	14003749-001	2500 (12.7)	Black			
	14003749-002	3500 (17.8)	Gray RP980A1006 or RP980A1010/ RP980B1004			
CP980E1060	None	500 (2.5)	None	—	—	—
	14003642-002	750 (3.8)	Green			CP980E1011
	14003642-003	1500 (7.6)	White			CP980E1029
	14003642-004	2000 (10.2)	Blue			CP980E1037
	14003749-001	2500 (12.7)	Black			CP980E1045
	14003749-002	3500 (17.8)	Gray			CP980E1052
CP980F1068	None	500 (2.5)	None	CP980A1002/ RP980C1002 CP980A1010/ RP980C1002 ^a	CP980B1026 CP980B1059 ^a	— CP980F1019 CP980F1027 CP980F1035 CP980F1043 CP980F1050
	14003642-002	750 (3.8)	Green			
	14003642-003	1500 (7.6)	White			
	14003642-004	2000 (10.2)	Blue			
	14003749-001	2500 (12.7)	Black			
	14003749-002	3500 (17.8)	Gray			

^a Valid with green (1500 ft/min), red (2500 ft/min), white (3500 ft/min) or blue (4250 ft/min) orifices only.

Velocity Sensors/Controllers

Pneumatic Velocity Control Accessories and Replacement Parts

Product Number	Description	Used With
14003469-001	Replacement Diaphragm	RP980
14003514-001	Sensor for CP980E Velocitrol Velocity Control	CP980E
14003617-002	Velocitrol Supply Module "B"	CP980; RP980
14003642-002	Orifice Green, Velocity Range 750 ft/min (3.8 m/s)	CP980
14003642-003	Orifice White, Velocity Range 1500 ft/min (7.6 m/s)	CP980
14003642-004	Orifice Blue, Velocity Range 2000 ft/min (10.2 m/s)	CP980
14003749-001	Orifice Black, Velocity Range 2500 ft/min (12.7 m/s)	CP980
14003749-002	Orifice Gray, Velocity Range 3500 ft/min (17.8 m/s)	CP980
14003749-003	Orifice Yellow	CP980
14003882-001	Direct Acting Velocitrol sensor plate assembly including Base plate (14003480-001), Diaphragm (14003504-001), top plate assembly (14003525-002), gasket (14003885-001), valve plate assembly (14003897-001), knob (14003886-001), diaphragm (14003886-001),	CP980E, CP980C
14003931-006	Stainless steel SCCM flow Restriction of 120-160 at 100 kPa	CP980E, CP980C
14004176-001	Air check Valve assembly including Base & pipe assembly (14004126-001), valve cup (14004090-001), Membrane (14004092-001), protective cover (14004091-001), Gasket (14004093-001), and Label (14004177-001)	CP981
14004316-001	Cover Assembly for CP983A.	CP981
315993A	Scaleplate assembly, RP908	RP908
316155A	Cover Assembly, RP908	RP908

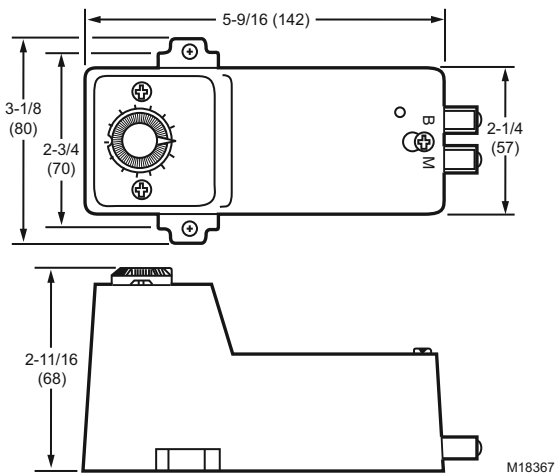
Controllers

Temperature Controllers

LP920 Remote Bulb Temperature Controllers

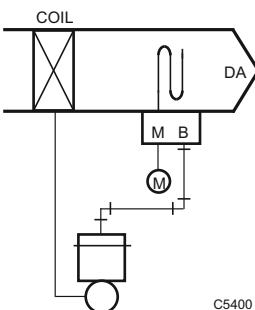


Dimensions in inches (millimeters)

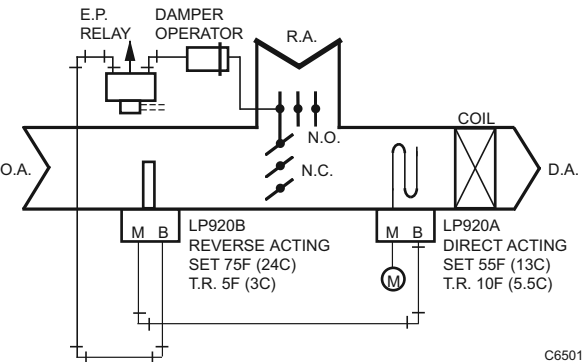


- Two-pipe, single temperature, pneumatic temperature controller used to provide proportional control of pneumatic valves and damper actuators in heating and air conditioning systems. Replacement devices are available for Johnson, Powers, Robertshaw, Barber-Colman, and older Honeywell two-pipe pneumatic temperature controller.
- Fahrenheit or Celsius scales for all adjustments.
 - Pilot operated for high capacity.
 - Direct Acting (DA) and Reverse Acting (RA) models are available.
 - Adjustable setpoint and throttling ranges.
 - Scales in bold type for high visibility.
 - Replaceable filter cartridge.
 - Single point or averaging elements.

Typical coil discharge control



Typical mixed air control



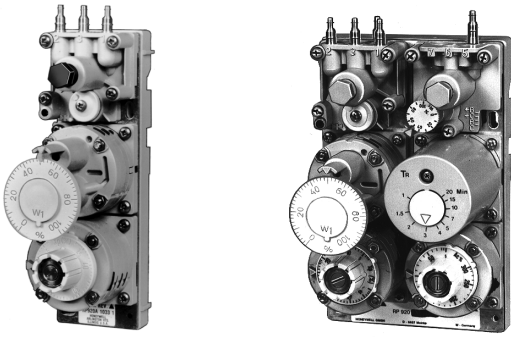
Application: Remote Bulb Temperature
Airflow Usage: 0.011 scfm (5.2 mL/s)
Maximum Operating Temperature: Element: 230 F, Controller: 150 F (Element: 110 C, Controller: 66 C)
Maximum Storage Temperature: 150 F (66 C)
Maximum Operating Pressure: 30 psi (207 kPa)
Throttling Range: Factory set at 10 F with adjustment range of 5 to 25 F (Factory set at 6K with adjustment range of 3 to 15 K)
Remote Bulb Sensor: yes
Comments: Scale plate is reversible for F and C applications

- Accessories:**
314439 Duct Clip for Averaging Element
315904B 1/2 in. NPT stainless steel Well, 7 5/16 in. (186 mm) long
315046B Well, 1/2 NPT Copper, 7 1/2 in. (191 mm) long
- Replacement Parts:**
14001865-001 Filter Cartridge Assembly
14002172-001 Gage Tap repair Plug

Product Number	Action	Number of Pipes	Scale Range		Includes
			(F)	(C)	
LP920A1005	Direct Acting	2	30 F to 150 F	-1 C to +66 C	8 ft (2.4 m) averaging element for duct mounting
LP920A1013	Direct Acting	2	30 F to 150 F	-1 C to +66 C	3/8 x 5 1/4 in. (10 x 133 mm) bulb with 3 in. (76 mm) capillary, well mount
LP920A1021	Direct Acting	2	30 F to 150 F	-1 C to +66 C	3/8 x 5 1/4 in. (10 x 133 mm) bulb with 10 in. (254 mm) capillary, integral duct mount
LP920A1039	Direct Acting	2	30 F to 150 F	-1 C to +66 C	3/8 x 5 1/4 in. (10 x 133 mm) bulb with 5 ft. (1.5 m) capillary, remote duct mount
LP920B1037	Reverse Acting	2	30 F to 150 F	-1 C to +66 C	3/8 x 5 1/4 in. (10 x 133 mm) bulb with 5 ft. (1.5 m) capillary, remote duct mount

Temperature Controllers

RP920 Pneumatic Controller

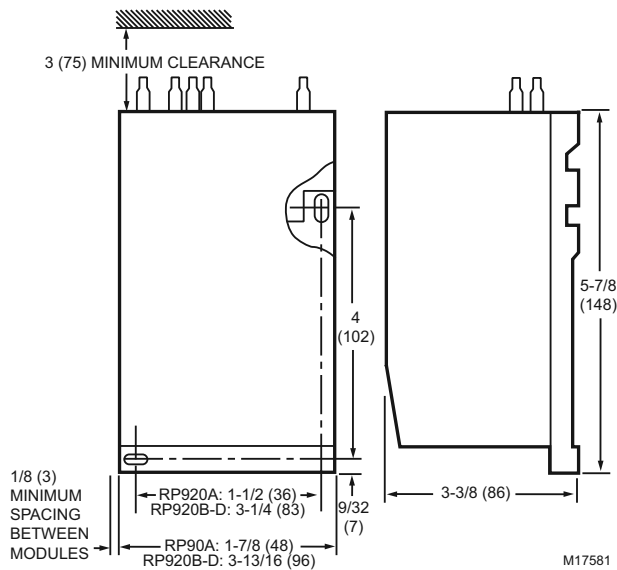


Proportional, high capacity, single or dual input pneumatic controller used in conjunction with remote sensors to provide proportional (P) or proportional plus integral (P+I) control of temperature, humidity, pressure, or dewpoint for heating and air conditioning systems. Replacement devices are available for Johnson, Powers, Robertshaw, Barber-Colman, and older Honeywell controllers.

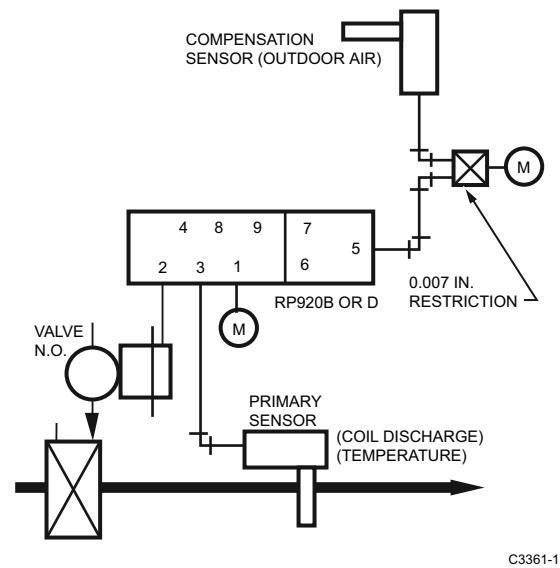
- Proportional plus integral control option minimizes offset.
- Miniature diaphragm technology provides high degree of accuracy and reliability.
- Direct Acting models can be converted to Reverse Acting (RA) function in field.
- Field adjustable compensation start point.
- Local or remote setpoint field option. Integral action cut-off provides trouble-free automatic startup.
- Transparent cover (optional) provides protection while allowing easy reading of settings and gages.
- Corrosion resistant construction.

Controllers

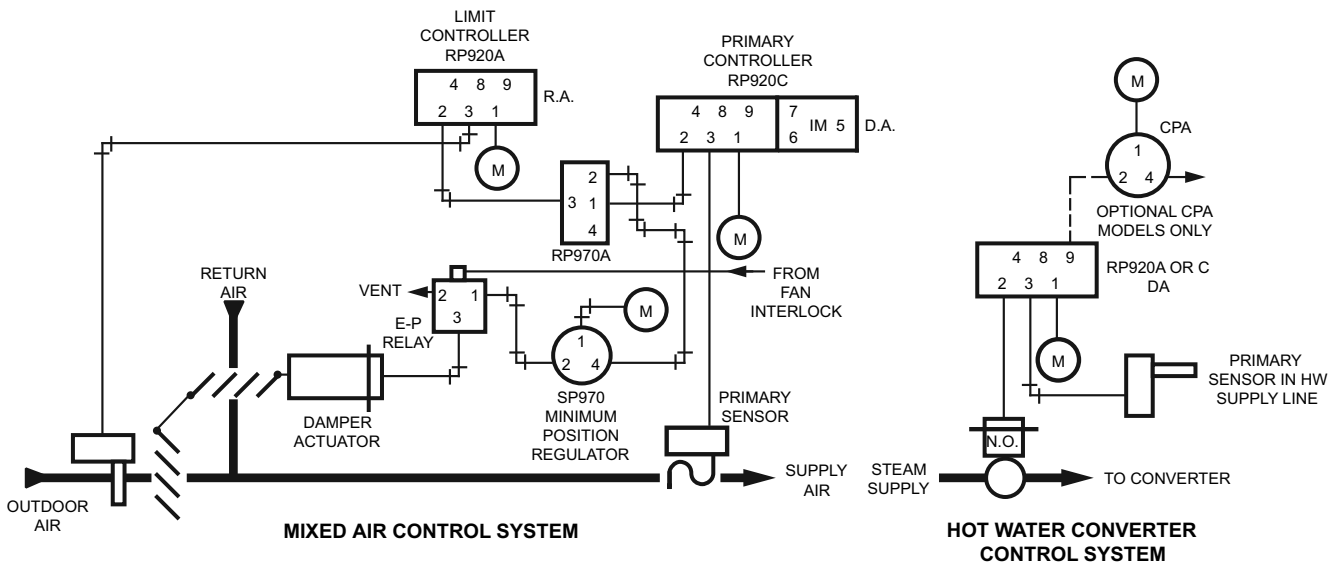
Dimensions in inches (millimeters)



Typical Dual-Input Control System



Typical Single-Input Control System



Temperature Controllers

Airflow Usage: 0.07 scfm (33.0 mL/s) with 1 psi (7kPa) pressure drop at 18 psi (124 kPa) main air supply

Connections: Air: Combination 5/32 in. by 1/4 in. barb. Optional accessory 14003755-001 (barb fitting for port 4,6,7, or 8 for all RP920).

Input Signal: 3 to 15 psi (21 to 103 kPa)

Maximum Operating Temperature: 130 F (54 C)

Temperature Range: 40 F to 130 F (5 C to 55 C)

Maximum Operating Pressure: 30 psi (207 kPa)

Humidity Ratings: 5 to 95% RH

Remote Bulb Sensor: no

Remote Control Point Adjustment: Yes

Comments: All RP920s can be converted to reverse acting in the field. For additional technical information see literature Form no. 85-0224 and 95-7392EF.

Accessories:

14000786-001 Receiver Gauge, 25 F-125 F scale, 1 1/2 in. diameter, 1/8 in. NPT connection

14000786-003 Receiver Gauge, 15 to 75% RH scale, 1 1/2 in. diameter, 1/8 in. NPT connection

14000786-004 Receiver Gauge, 65 to 95% RH scale, 1 1/2 in. diameter, 1/8 in. NPT connection

14000786-005 Receiver Gauge, 15 to 85% RH scale, 1 1/2 in. diameter, 1/8 in. NPT connection

14000786-002 Receiver Gauge, -5 to 55 C scale, 1 1/2 in. diameter, 1/8 in. NPT connection

14004267-001 Temperature and Humidity scaleplate insert for setpoint knob for all RP920

14004322-001 DIN Rail Mount

14505694-003 13 3/4 inch (350 mm) long mounting rail for RP920

14505694-004 17 3/4 inch (450 mm) long mounting rail for RP920

43188057-010 Clear plastic cover for all RP920A pneumatic controllers

43188123-010 Clear plastic cover for all RP920B, RP920C, RP920D pneumatic controllers

305616 1-1/2 in. diameter, 1/8 NPT center stem back mount Receiver gauge (0 to 2 in. w.c. scale) with +/- 2% accuracy

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

305929 1-1/2 in. diameter, 1/8 NPT center back stem mount Receiver gauge (-40 to +160 F scale) with +/- 2% accuracy

305930 1-1/2 in. diameter, 1/8 NPT center back stem mount Receiver gauge (0 to 200 F scale) with +/- 2% accuracy

305931 1-1/2 in. diameter, 1/8 NPT center back stem mount Receiver gauge (40 to 240 F scale) with +/- 2% accuracy

305972 Receiver gauge, 1-1/2 in. 1/8 NPT center back, temperature 50 to 100F

305986 Receiver Gauge. -20 to 80 F scale 1-1/2 in. diameter, 1/2 NPT connection

Replacement Parts:

14004277-003 Setpoint module with gasket with CPA for RP920

14004278-002 Compensation module with gasket for RP920B and RP920D

14004533-001 Connector block with gasket and CPA for RP920

14003757-001 Seal screw for port 8 and O-ring repair parts for RP920

43915905-110 O-ring for filter in RP920

43188059-001 Setpoint knob for all RP920 pneumatic controllers

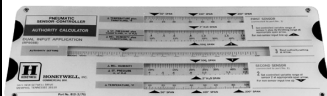
14002172-001 Gage Tap repair Plug

14001865-001 Filter Cartridge Assembly

Product Number	Application	Action	Capacity	Number of Sensors	Output Pressure Range		Includes
					(psi)	(kPa)	
RP920A1025	Proportional pneumatic controller	Direct Acting	at 18 psi (124 kPa) MLP and 8.5 psi (59 kPa) BLP (does not include sensor usage): 0.021 scfm (10 mL/s)	single	3 to 13 psi, output signal maximum is Mainline Pressure minus 1/2 psi	21 to 90 psi, output signal maximum is Mainline Pressure minus 7 kPa	With remote control point adjustment capability.
RP920A1033	Proportional pneumatic controller	Direct Acting	at 18 psi (124 kPa) MLP and 8.5 psi (59 kPa) BLP (does not include sensor usage): 0.021 scfm (10 mL/s)	single	3 to 13 psi, output signal maximum is Mainline Pressure minus 1/2 psi	21 to 90 psi, output signal maximum is Mainline Pressure minus 7 kPa	Without remote control point adjustment capability.
RP920B1023	Proportional pneumatic controller	Direct Acting	at 18 psi (124 kPa) MLP and 8.5 psi (59 kPa) BLP (does not include sensor usage): 0.046 scfm (21.7 mL/s)	dual	3 to 13 psi, output signal maximum is Mainline Pressure minus 1/2 psi	21 to 90 psi, output signal maximum is Mainline Pressure minus 7 kPa	With remote control point adjustment capability.
RP920B1031	Proportional pneumatic controller	Direct Acting	at 18 psi (124 kPa) MLP and 8.5 psi (59 kPa) BLP (does not include sensor usage): 0.046 scfm (21.7 mL/s)	dual	3 to 13 psi, output signal maximum is Mainline Pressure minus 1/2 psi	21 to 90 psi, output signal maximum is Mainline Pressure minus 7 kPa	Without remote control point adjustment capability.
RP920C1021	Proportional plus integral pneumatic controller	Direct Acting	at 18 psi (124 kPa) MLP and 8.5 psi (59 kPa) BLP (does not include sensor usage): 0.021 scfm (10 mL/s)	single	3 to 13 psi, output signal maximum is Mainline Pressure minus 1/2 psi	21 to 90 psi, output signal maximum is Mainline Pressure minus 7 kPa	With remote control point adjustment capability.
RP920C1039	Proportional plus integral pneumatic controller	Direct Acting	at 18 psi (124 kPa) MLP and 8.5 psi (59 kPa) BLP (does not include sensor usage): 0.021 scfm (10 mL/s)	single	3 to 13 psi, output signal maximum is Mainline Pressure minus 1/2 psi	21 to 90 psi, output signal maximum is Mainline Pressure minus 7 kPa	Without remote control point adjustment capability.
RP920D1029	Proportional plus integral pneumatic controller	Direct Acting	at 18 psi (124 kPa) MLP and 8.5 psi (59 kPa) BLP (does not include sensor usage): 0.046 scfm (21.7 mL/s)	dual	3 to 13 psi, output signal maximum is Mainline Pressure minus 1/2 psi	21 to 90 psi, output signal maximum is Mainline Pressure minus 7 kPa	With remote control point adjustment capability.

Temperature Controllers

Pneumatic Temperature Controller Accessories

Product Number	Description	Used With	
14000786-001	Receiver Gauge, 25 F-125 F scale, 1 1/2 in. diameter, 1/8 in. NPT connection	RP920;	
14000786-002	Receiver Gauge, -5 to 55 C scale, 1 1/2 in. diameter, 1/8 in. NPT connection	RP920;	
14000786-003	Receiver Gauge, 15 to 75% RH scale, 1 1/2 in. diameter, 1/8 in. NPT connection	RP920;	
14000786-004	Receiver Gauge, 65 to 95% RH scale, 1 1/2 in. diameter, 1/8 in. NPT connection	RP920;	
14000786-005	Receiver Gauge, 15 to 85% RH scale, 1 1/2 in. diameter, 1/8 in. NPT connection	RP920;	
14002696-001	Repair kit including filters, screens, washers, gaskets, O-rings, and restrictors for RP908A and RP908B controllers	RP908;	
14004278-002	Compensation module with gasket for RP920B and RP920D	RP920;	
14004322-001	DIN Rail Mount	RP920;	
14505694-003	13 3/4 inch (350 mm) long mounting rail for RP920	RP920;	
14505694-004	17 3/4 inch (450 mm) long mounting rail for RP920	RP920;	
305616	1-1/2 in. diameter, 1/8 NPT center stem back mount Receiver gauge (0 to 2 in. w.c. scale) with +/- 2% accuracy	RP920;	
305617	1-1/2 in. diameter, 1/8 NPT center stem back mount Receiver gauge (1.0 to 3.0 in. w.c. scale) with +/- 2% accuracy	RP920;	
305929	1-1/2 in. diameter, 1/8 NPT center back stem mount Receiver gauge (-40 to +160 F scale) with +/- 2% accuracy	RP920;	
305930	1-1/2 in. diameter, 1/8 NPT center back stem mount Receiver gauge (0 to 200 F scale) with +/- 2% accuracy	RP920;	
305931	1-1/2 in. diameter, 1/8 NPT center back stem mount Receiver gauge (40 to 240 F scale) with +/- 2% accuracy	RP920;	
305965	1-1/2 in. diameter, 1/8 NPT center stem back mount Pressure Indicating gauge (0 to 30 psi scale) with +/- 4% accuracy	RP920;	
305972	Receiver gauge, 1-1/2 in. 1/8 NPT center back, temperature 50 to 100F	RP920;	
43188057-010	Clear plastic cover for all RP920A pneumatic controllers	RP920;	
43188123-010	Clear plastic cover for all RP920B, RP920C, RP920D pneumatic controllers	RP920;	
CCT813	Slide Rule for Calculating Pneumatic Controller Settings for all RP908 and RP920's.	RP908; RP920;	

Controllers

Pneumatic Temperature Controller Replacement Parts

Product Number	Description	Used With
14003757-001	Seal screw for port 8 and O-ring repair parts for RP920	RP920;
14004277-003	Setpoint module with gasket with CPA for RP920	RP920;
14004286-002	Zinc plated metric machine screw, M3x0.5., 19 min., 26 - 0.8	RP920;
14004533-001	Connector block with gasket and CPA for RP920	RP920;
43188059-001	Setpoint knob for all RP920 pneumatic controllers	RP920;
43915905-110	O-ring for filter in RP920	RP920;

Pressure Controllers

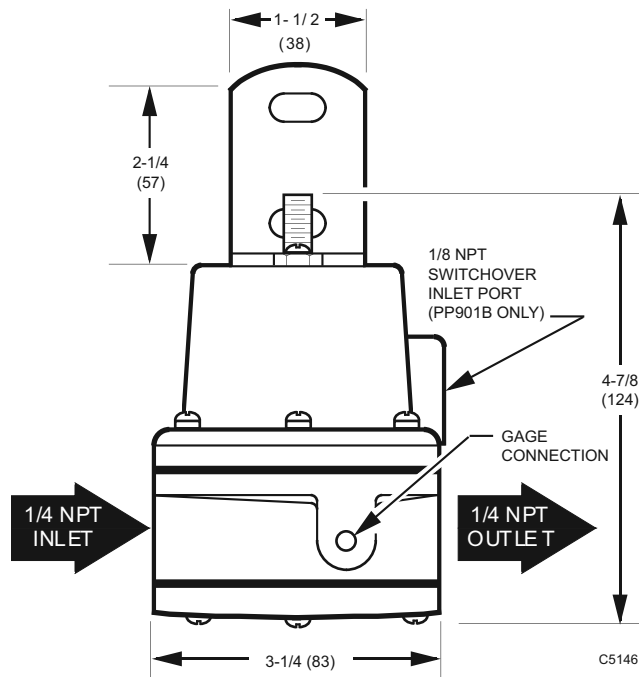
PP901; PP902 Pressure Reducing Valves



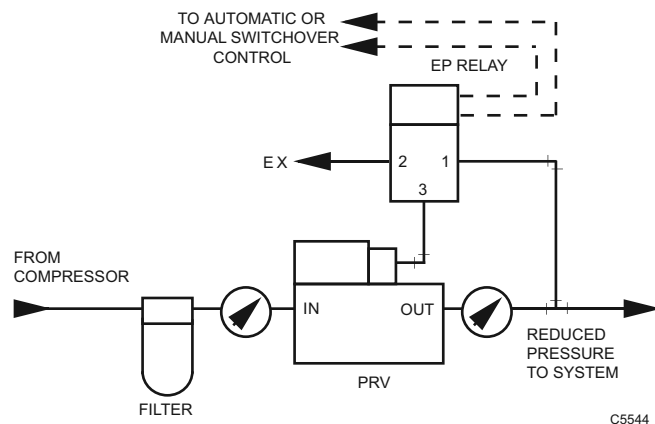
Used to control the pressure of the air delivered to pneumatic control systems. Models available for single-pressure systems or two-pressure systems (Day/Night or Summer/Winter) requiring two independently regulated pressure settings. Dual-pressure units switch from the lower settings to the higher settings 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.

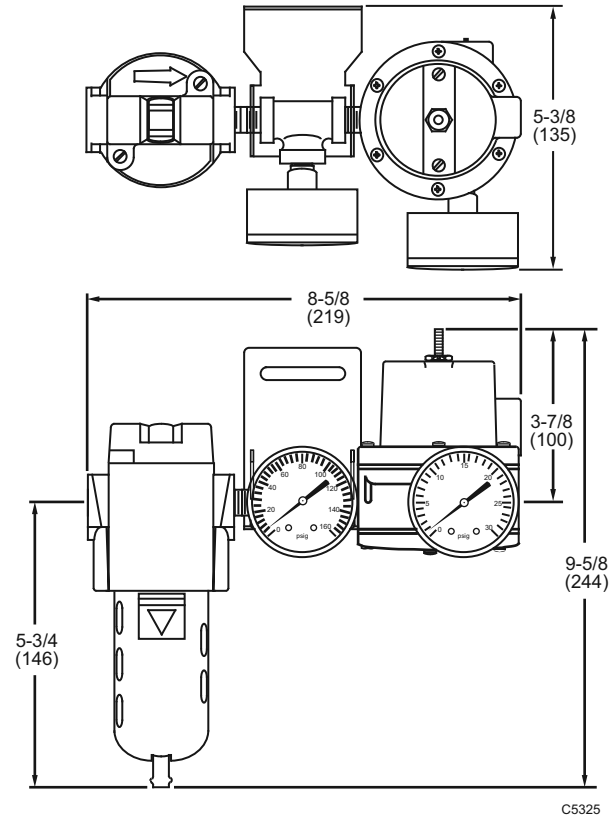
Dimensions in inches (millimeters)



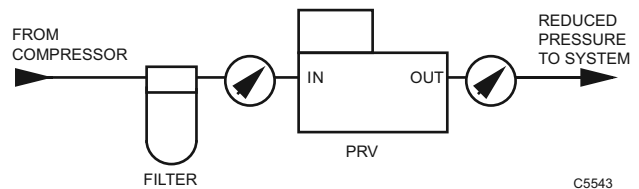
PP902D Typical Operation



Dimensions in inches (millimeters)



PP902C Typical Operation



Pressure Controllers

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 +/- 3% accuracy

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

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

Replacement Parts:

14003121-002 Filter for PP902A or B

14004203-001 Filter cartridge kit for PP902C and PP902D.

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

316134B PP901A & B Diaphragm Repair Kit

316203A Pressure Regulator Valve Assembly, PP901A & PP901B, PP902A,B.

Controllers

Product Number	Inlet Pressure Range		Output Pressure Range		Includes	Description
	(psi)	(kPa)	(psi)	(kPa)		
PP901A1004	45 to 150 psi	310 to 1034 kPa	primary pressure: adj.0 to 25 psi.	primary pressure: adj.0 to 172 kPa.	Gage tapping to measure the regulated pressure.	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.
PP901B1002	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.	Gage tapping to measure the regulated pressure.	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.
PP902C1009	45 to 150 psi	310 to 1034 kPa	primary pressure: adj.0 to 25 psi	primary pressure: adj.0 to 172 kPa.	Sub-micron filter assembly and two psig gages.	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
PP902D1007	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.	Sub-micron filter assembly and two psig gages.	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

Pressure Controllers

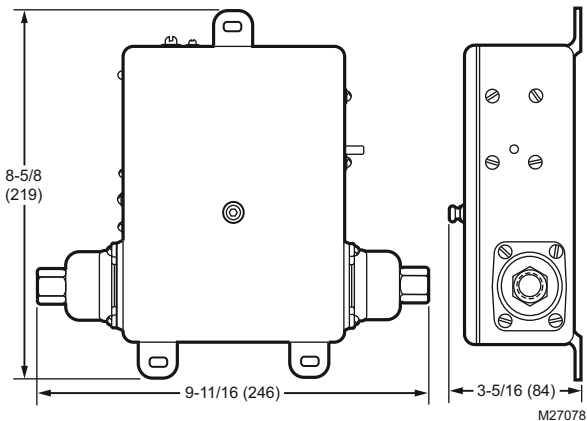
PP903 Pneumatic Differential Pressuretrol



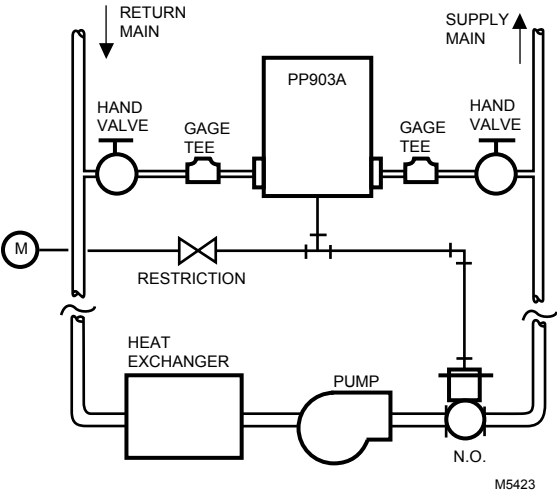
One-pipe, pressure operated device used to provide proportional control of pneumatic valve or damper actuators by varying the pressure to the actuators in relation to the pressure difference between two separate water pressures. Replacement devices are available for Johnson, Powers, Robertshaw, and older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

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

Dimensions in inches (millimeters)



PP903A Typical Piping



Application Type: Differential Pressure
Connection Size: Input: 1/4 in. NPT; Branchline: 1/8 in. NPT
Approximate Throttling Range, Midscale (max.): 25 psi (172 kPa)

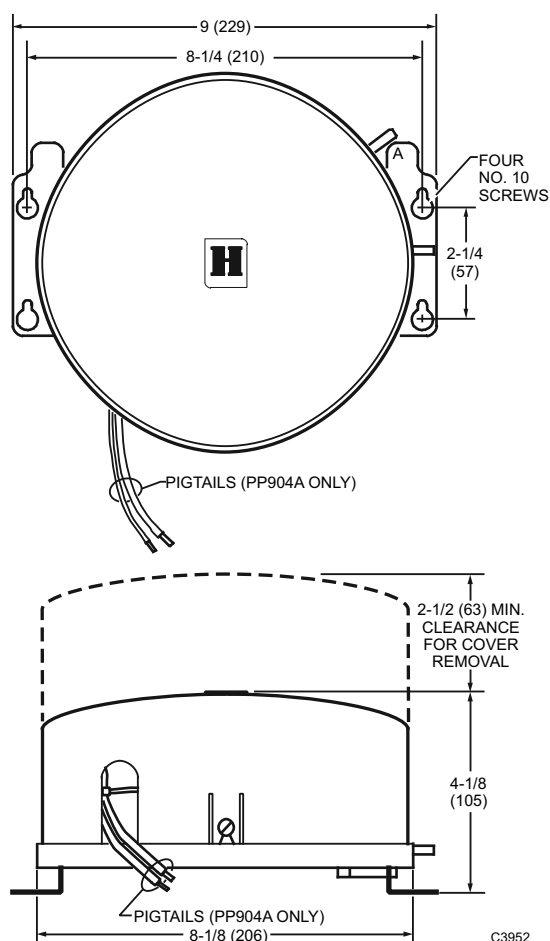
Pressure Range: 0 to 300 psi (0 to 2068 kPa)
Mounting: Lugs for 3-point surface mounting

Product Number	Action	Actuator Force		Maximum Safe Operating Pressure		Differential Pressure Range	
		(psi)	(kPa)	(psi)	(kPa)	(psi)	(kPa)
PP903A1036	Reverse Acting, Direct Acting	7.5 psi	52 kPa	18 psi	124 kPa	5 to 65 psi	34 to 448 kPa

PP904 Static Pressure Regulators



Dimensions in inches (millimeters)



Application Type: Static or Differential Pressure

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)

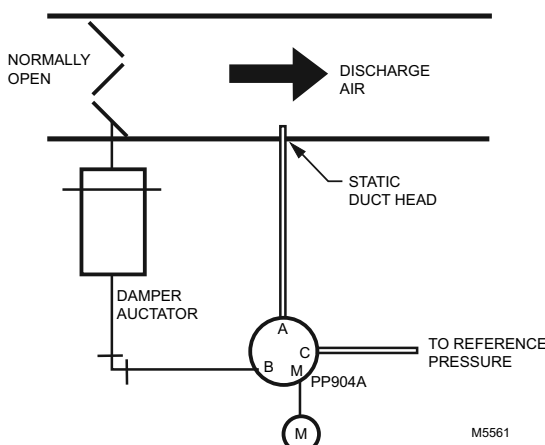
Maximum Safe Static Pressure: 28 in. wc (7 kPa)

Maximum Safe Operating Pressure: 25 psi (170 kPa)

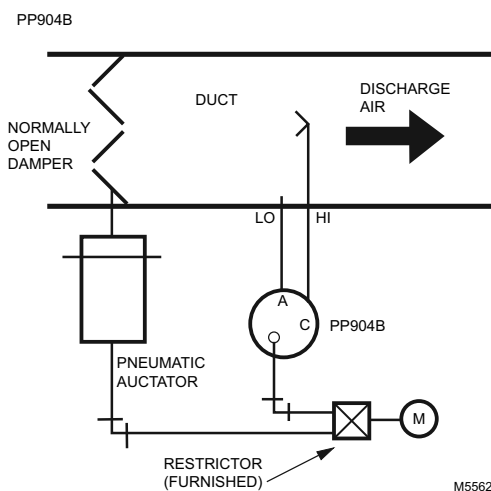
One- or two-pipe, direct- or reverse-acting, low- or high-capacity controller used with pneumatic actuators to regulate static or differential pressure in central fan installations. Replacement devices are available for Johnson, Powers, Robertshaw, Barber-Colman, and older Honeywell devices.

- 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



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

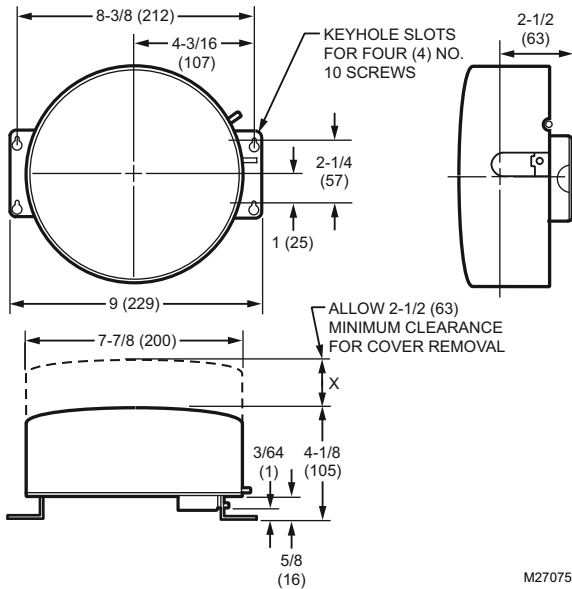
301298B Outdoor Static Pressure Head

Product Number	Action	Number of Pipes	Setpoint Range		Throttling Range (in. wc)	Comments
			(in. wc)	(kPa)		
PP904A1035	Reverse Acting, Direct Acting	2	0 to +/-8 in. wc (adjustable)	0 to +/-2 kPa (adjustable)	0.03 to 0.5 in wc (adjustable)	High capacity branchline pressure
PP904B1009	Reverse Acting, Direct Acting	1	0 to +/-8 in. wc (adjustable)	0 to +/-2 kPa (adjustable)	0.06 to 0.5 in. wc (adjustable)	Low capacity branchline pressure

PP905 Static Pressure Sensor



Dimensions in inches (millimeters)

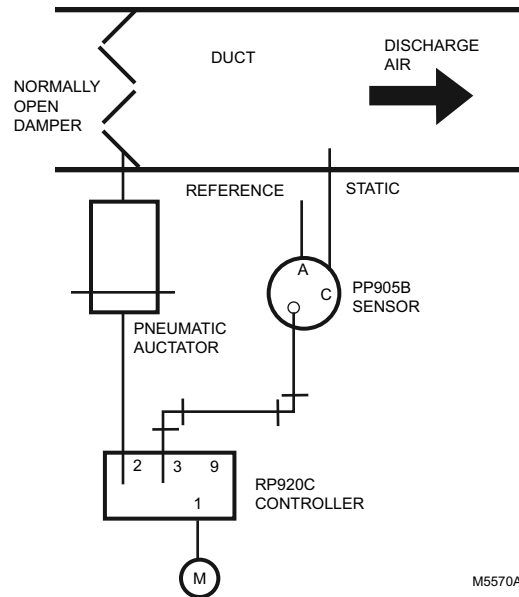


Application Type: Static Pressure
Airflow Usage: 0.021 cfm (9.9 ml/s)
Connections: Push-on barb for 1/4 in (6 mm) Diameter tubing
Mainline Air Pressure (min.): 16 psi (112 kPa)
Mainline Air Pressure (max.): 25 psi (175 kPa)
Maximum Safe Static Pressure: 28 in. wc (7 kPa)
Maximum Safe Operating Pressure: 25 psi (172 kPa)

One-pipe, direct-or reverse-acting pressure sensor used with RP908/RP920 Controllers to provide control of duct static, velocity, or differential pressure in airflow applications. Replacement devices available for Johnson, Powers, Robertshaw, Barber-Colman, and older Honeywell devices.

- Three-diaphragm design minimizes calibration shift with static pressure changes in velocity pressure applications.
- Not sensitive to normal supply air variations.
- Continuous static, total, velocity, or differential pressure indication available by using differential pressure gage.

PP905 in Pneumatic Static Pressure Application



Pressure Range: 2 in. wc (0.5 kPa)
Mounting: Duct mount
Temperature Range: 40 F to 120 F (4 C to 50 C)

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

Product Number	Action	Output Pressure Range		Setpoint Range		Span (Non-Adjustable)		Comments
		(psi)	(kPa)	(in. wc)	(kPa)	(in. wc)	(kPa)	
PP905B1008	Can be set for Direct Acting or Reverse Acting	3 psi to 15 psi	21 kPa to 103 kPa	0 in. wc. to 7 in. wc. (Adjustable)	0 kPa to 1.7 kPa (Adjustable)	2 in. wc.	0.5 kPa	The setpoint determines the midpoint of the span.

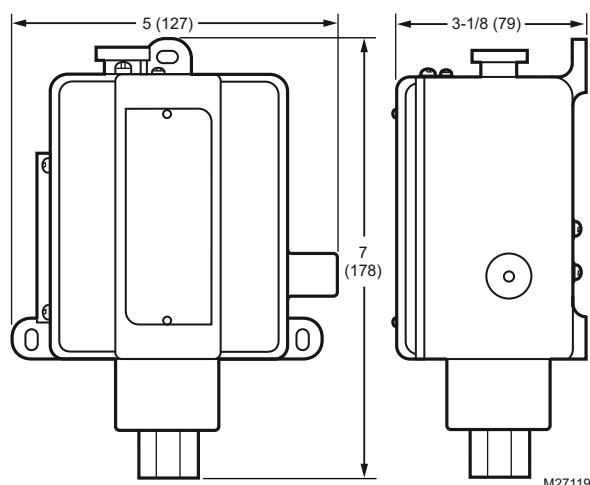
PP97 Pneumatic Pressure Control



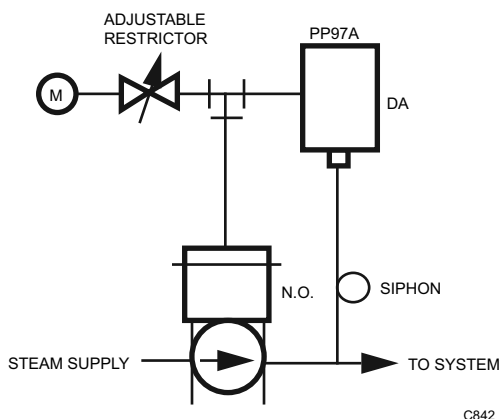
One-pipe, pressure operated device that provides proportional control of pneumatic valves to control steam, air, noncorrosive gas, or noncorrosive liquid pressure. Replacement devices are available for Johnson, Powers, Robertshaw, and older Honeywell pneumatic pressure controllers.

- Easily accessible adjustments.
- Direct Acting (DA) or Reverse Acting (RA) setting.

Dimensions in inches (millimeters)



PP97A Typical Piping



Application Type: Proportional Pressure
Connection Size: Bellows: 1/4 in., NPT; Air: 1/8 in. NPT
Approximate Throttling Range, Midscale (max.): 1.5 psi (10 kPa)

Approximate Throttling Range, Midscale (min.): 0.1 psi (0.7 kPa)
Mounting: Lugs for 3-point surface mounting

Product Number	Action	Setpoint Range		Maximum Safe Operating Pressure		Maximum Allowable pressure		Description
		(psi)	(kPa)	(psi)	(kPa)	(psi)	(kPa)	
PP97A1035	Reverse Acting, Direct Acting	0 to 15 psi	0 to 103 kPa	25 psi	172 kPa	25 psi	172 kPa	Pneumatic Pressure Controller, Proportional Pressure, Action: Direct or Reverse, Output: Proportional Pressure, 0 to 15 psi pressure range
PP97A1076	Reverse Acting, Direct Acting	10 to 300 psi	69 to 2068 kPa	350 psi	2413 kPa	350 psi	2413 kPa	Pneumatic Pressure Controller, Proportional Pressure, Action: Direct or Reverse, Output: Proportional Pressure, 10 to 300 psi pressure range

Pressure Controllers

UEC24014 Differential Pressure Switch



Differential pressure switches open or close a switch contact in response to a change in sensed differential pressure.

- NEMA Enclosures.
- UL and CSA Listed.
- Gold Clad Contacts.
- Brass Pipe Connection.
- Pipe or Surface Mount.

Dimensions, Approximate: 3 1/2 in. high x 2 3/8 in. wide
(89 mm high x 58 mm wide)

Connection Size: Pipe connection: Brass, 1/4 in. NPT

Electric connection: terminal strip, 16 AWG max.

Pressure Range: 150 psi at either port (1034 kPa at either port)

Mounting: Pipe or surface

Temperature Range: 30 F to 160 F (-1 C to +71 C)

Approvals:

Canadian Standards Association: Approved

Factory Mutual: Approved

NEMA Standard: NEMA 1

Underwriters Laboratories, Inc. Certified

Product Number	Differential Pressure Range		Description
	(psi)	(kPa)	
UEC24014M262	4 to 45 psi	28 to 310 kPa	Pneumatic, Type of control: Pneumatic, NEMA 1, 150 psi at either end
UEC24014M262M900	4 to 45 psi	28 to 310 kPa	Pneumatic, Type of control: Pneumatic, NEMA 4, 150 psi at either end

Pneumatic Pressure Controller Accessories and Replacement Parts

Product Number	Description	Used With
14003121-002	Filter for PP902A or B	PP902A,B
14004203-001	Filter cartridge kit for PP902C and PP902D.	PP902C,D
14004205-002	Filter Station Assembly for PP901, PP902A or B	PP901; PP902A,B
14004238-001	Static Pressure Duct Head for 1/4 in., 6 mm diameter Plastic Tubing	PP904
301298B	Outdoor Static Pressure Head	PP904