

# 921 Series Pressure Regulator

Pressure Reducing or Back Pressure Relief Valve

PRESSURE REGULATORS



921 shown

- ▶ Self-Contained Design
- ▶ Spring-loaded Diaphragm Actuated
- ▶ Cast Ductile Iron Housing & Yoke
- ▶ 1/2" - 6" Valve Sizes

The Trerice **921Series** Pressure Regulator is fully self-contained and requires no external power source. This regulator requires that a user-supplied pressure sensing line be connected from the controlled point to the diaphragm actuator. Pressure in this line acts upon the diaphragm to develop the necessary thrust to stroke the valve, thereby maintaining the system at the desired condition.

- For pressure reducing applications, the pressure sensing line is mounted downstream, and the valve closes as this sensed pressure increases.

**Reduced outlet pressure not to be less than 10% of inlet pressure.**

- For back pressure relief applications, the sensing line is mounted upstream, and the valve opens as the sensed pressure increases.

**For optimal performance, the service conditions (medium, flow, temperature, inlet and outlet pressures) of the application must be considered when selecting a valve. Please refer to the Valve Selection Section of this catalog. Improper application may cause failure of the valve, resulting in possible personal injury or property damage.**

For replacement or service parts please see Accessories and Replacement Parts in the Regulators and Control Valves section of the list price sheet.

## Specifications

### Actuator Models

**921PRV** (Pressure Reducing Valve)  
**921BPR** (Back Pressure Relief)

**Housing** Cast ductile iron, black finish

**Pressure Plate** Cast iron

**Diaphragm Material** Nylon reinforced Neoprene

**Regulated Pressures**  
 2-100 psi

**Maximum PRV Inlet Pressure**  
 1/2" - 2": 200 psi  
 2 1/2" - 6": 125 psi\*

**Maximum BPR Set Pressure**  
 100 psi

**Pressure Connection**  
 1/4 NPT

**Adjustment Nut**  
 Steel

**Adjustment Screw**  
 Brass

**Adjustment Spring**  
 Cadmium plated steel

**Body Material**  
 1/2"-2": Bronze  
 2 1/2"-6": Cast iron

**Trim Material** Stainless steel

**Trim Style** Quick-opening

**Connection**  
 1/2"-2": Threaded, malleable Iron union ends  
 2 1/2"-6": Class 125 Flanged

**Pressure & Temperature Rating**  
 1/2"-2": 250 psi @ 410° F (210° C)  
 2 1/2"-6": 125 psi @ 350° F (175° C)

## HOW TO ORDER

Sample Order Number: **921PRV-A55-075060**

Model	Valve	Inlet Pressure	Outlet Pressure
<b>921PRV-</b> (Pressure Reducing Valve) <b>921BPR-</b> (Back Pressure Relief)	See Available Valves	Specify Upstream Pressure in psig (i.e., 75 psig = 075)	Specify Downstream Pressure in psig (i.e., 60 psig = 060) Omit if 921BPR

\*200 psi inlet available with Class 250 flanged valve body. Consult Factory.

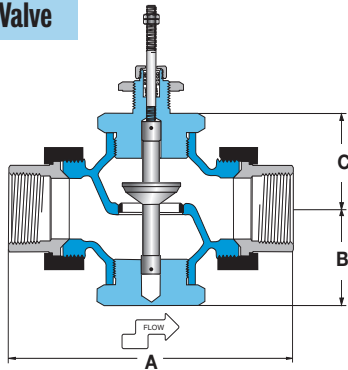
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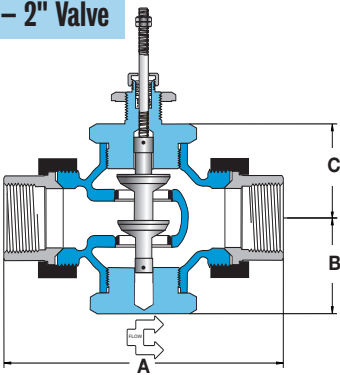
All dimensions are nominal. Dimensions in [ ] are in millimeters.

## Pressure Reducing (PRV)

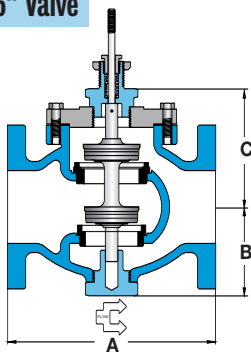
1/2" Valve



3/4" - 2" Valve

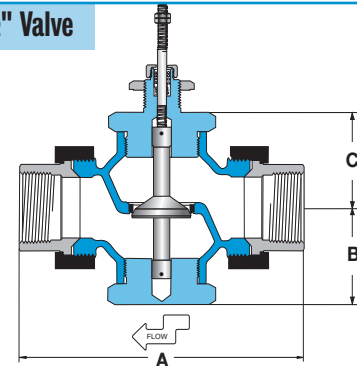


2 1/2" - 6" Valve

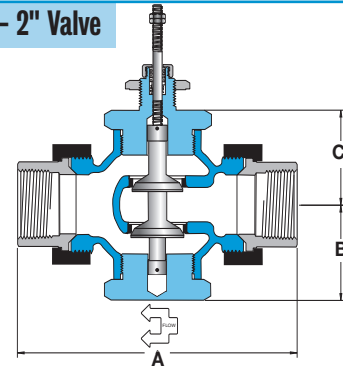


## Back Pressure Relief (BPR)

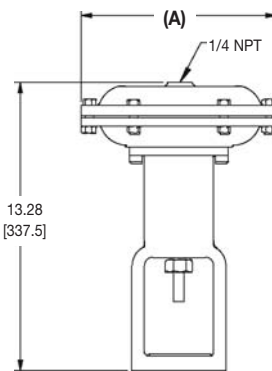
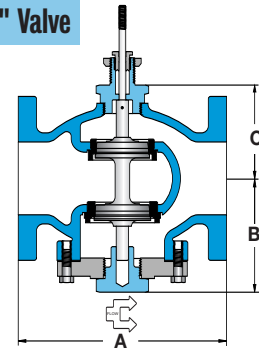
1/2" Valve



3/4" - 2" Valve



2 1/2" - 6" Valve



### Actuator (A) Dimension

A	6.1 [155]
B	7.0 [178]
C	8.1 [206]
D	9.0 [229]
E	11.0 [279]

Note: Actuator size and internal spring are determined by the inlet and outlet pressure requirements and will be specified by the factory at the time of order.

## Valve Selection

(PRV) Pressure Reducing	(BPR) Back Pressure Relief	Size Connection	Nominal Port	Number of Seats	Capacity C <sub>v</sub> *	Maximum** Inlet (psig)	Dimensions			Approximate Shipping Wt.
							A	B	C	
A14	A15	1/2 NPT	1/2"	1	2.8	200	4.8 [122]	1.8 [46]	1.8 [46]	3.0 lbs [1.35 kg]
A21	A24	3/4 NPT	3/4"	2	8	200	5.6 [142]	2.3 [58]	2.3 [58]	5.0 lbs [2.25 kg]
A29	A33	1 NPT	1"	2	12	200	6.0 [152]	2.3 [58]	2.3 [58]	6.1 lbs [2.75 kg]
A39	A44	1 1/4 NPT	1 1/4"	2	21	200	7.2 [183]	2.6 [66]	2.6 [66]	10.1 lbs [4.55 kg]
A50	A55	1 1/2 NPT	1 1/2"	2	30	200	7.7 [196]	2.6 [66]	2.6 [66]	11.1 lbs [5.00 kg]
A61	A66	2 NPT	2"	2	47	200	7.6 [218]	3.1 [79]	3.1 [79]	17.0 lbs [7.65 kg]
B73	B74	2 1/2"	2 1/2"	2	78	125	7.8 [198]	4.8 [122]	5.4 [137]	45 lbs [20 kg]
B78	B79	3"	3"	2	110	125	9.0 [229]	5.0 [127]	5.6 [142]	70 lbs [32 kg]
B83	B84	4"	4"	2	220	125	11.4 [290]	6.3 [160]	6.5 [165]	100 lbs [45 kg]
B88	B89	5"	5"	2	275	125	12.0 [305]	6.9 [175]	7.3 [185]	155 lbs [70 kg]
B93	B94	6"	6"	2	378	125	14.1 [358]	7.5 [191]	8.0 [203]	180 lbs [82 kg]

\*The valve selected should have a C<sub>v</sub> approximately two times that required by the service conditions. This will allow the valve to operate in approximately the 50% open position. \*\* Maximum BPR set pressure 100 psi.