



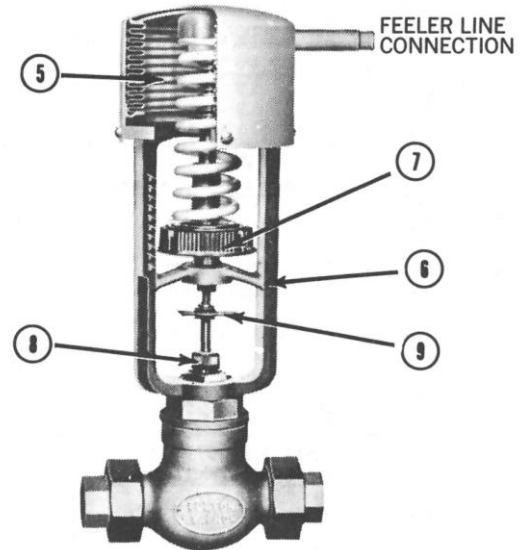
INDUSTRIAL PRODUCTS DIVISION

Sales Manual Section 160  
**PRODUCT SPECIFICATION RP-1070/1073**  
**Pressure Regulator or**  
**Pressure Relief Valve**  
**RP-1070-C /RP-1073-C Series**

**FEATURES**

1. Sizes 1/4" through 4" for inlet pressures up to 100 - 250 psi.
2. Selection of three range spans topped at 25, 40 and 55 psi.
3. All-metal construction.
4. High quality components from single manufacturer.
5. Large two-ply seamless Robertshaw long life bellows.
6. Heavy-duty construction with cast iron frame.
7. Setpoint adjustment wheel
8. Teflon\* chevron "Lifetime" stem packing.
9. Quick-disconnect valve stem

\* Registered trade name of DuPont Company



*All metal construction  
for Modulating Control of Pressure*

**DESCRIPTION OF CATALOGED REGULATORS**

Regulator Number		RP-1070-C1 Pressure Regulator	RP-1070-C2 Pressure Relief Valve	RP-1073-C1, C2 Pressure Regulator	RP-1073-C3, C4 Pressure Relief Valve
Valve See Valve Spec Sheet for further description	Action	Direct-acting - closes on rising pressure.	Reverse-acting - opens on rising pressure	Direct-acting - closes on rising pressure	Reverse-acting -opens on rising Pressure
	Sizes	1/4" through 1 1/2"	1/4" through 1 1/2"	1/4" through 4"	1/4" through 4"
	Type*	1/4", 3/8", 1/2" single-seated type "A;" 3/4" thru 1 1/2", single-seated type "MA"	Same as RP-1070-C1 except size 3/4" thru 1 1/2" have double-seated type "FA"	1/4", 3/8", 1/2" single-seated type "A;" 3/4" thru 2", single-seated type "MA;" 2 1/2" thru 4", double-seated type "FA."	Same as RP-1073-C1, C2 accept sizes 3/4" thru 4" have double-sated type "FA."
	Ends*	1/2" thru 1 1/2" screwed unions	1/2" thru 1 1/2" screwed unions	1/2" thru 1 1/2" screwed unions 2" thru 4", 125 lbs. ANSI flanges	1/2" thru 1 1/2" screwed unions 2" thru 4", 125 lbs. ANSI flanges
	Trim	All sizes, Stainless Steel	1/4" thru 1/2", Stainless Steel; 3/4" thru 1 1/2", Monel	1/4" thru 4", Stainless Steel	1/4" thru 1/2", Stainless Steel; 3/4" thru 1 1/2", Monel; 2" - 4", stainless steel.
	Stem	Stainless Steel. Quick-detach type	Stainless Steel Quick-detach type	Stainless Steel Quick-detach type	Stainless Steel Quick-detach type
	Stem Packing	Teflon chevrons, spring loaded	Rubber U-Cup	Teflon chevrons, spring loaded	Rubber U-Cup
	Body	Bronze	Bronze	1/4" thru 1 1/2", Bronze; 2" thru 4", Cast Iron	1/4" thru 1 1/2", Bronze; 2" thru 4", Cast Iron
Body Rating	250 psi	250 psi	1/4" thru 1 1/2", 250 psi; 2" thru 4", 125 psi	1/4" thru 1 1/2", 250 psi; 2" thru 4", 125 psi	
Materials For parts other than listed above.	Frame	Cast Iron	Cast Iron	Cast Iron	Cast Iron
	Adj. Spring	Steel	Steel	Steel	Steel
	Other Parts	Non-ferrous metals	Non-ferrous metals	Non-ferrous metals	Non-ferrous metals
Pressure Connection	Location	Top of head	Top of head	Side of Head	Side of head.
	Size	1/4" NPT	1/4" NPT	1/4" NPT	1/4" NPT

On 1/2" size with 1/4" and 3/8" reduced ports, the "A" type valve with threaded unions is cataloged.

## DESCRIPTION

### For Pressure Regulation

Valve Size Inches	Max. Supply Pressure, Lbs.	Max. Setpoint Pressure, Lbs.	Minimum Setpoint Pressure Lbs. (plus or minus % Initial Pressure)	Pressure* Change for Full Valve Stroke, Lbs.	Direct-Acting Valve, Type
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#### NO. RP-1070-C1

##### Valve closes on rising pressure

1/4	150	55	2.3 + 1.0%	4.6	A
3/8	150	55	2.9+2.1%	5.7	A
1/2	150	55	3.4 + 3.9%	6.8	A
3/4	250	55	4.6 - 1.5%	9.1	MA
1	250	55	5.7 - 1.5%	11.4	MA
1 1/4	250	55	6.9 - 1.5%	13.7	MA
1 1/2	250	55	8 - 1.5%	16	MA

#### NO. RP-1073-C1

##### Valve closes on rising pressure.

1/4	150	25	1 + 0.4%	2	A
3/8	150	25	1.3 + 0.8%	2.5	A
1/2	150	25	1.5 + 1.5%	3	A
3/4	250	25	2 - 0.6%	4	MA
1	250	25	2.5 - 0.6%	5	MA
1 1/4	250	25	3 - 0.6%	6	MA
1 1/2	250	25	3.5 - 0.6%	7	MA
2	150	25	4.5 - 0.6%	9	MA
2 1/2	100	25	3 + 3.5%	6	FA
3	100	25	3.5 + 4.2%	7	FA
4	100	25	4.5 + 5.7%	9	FA

#### NO. RP-1073-C2

##### Valve closes on rising pressure

1/4	150	40	1.4 + 0.4%	2.7	A
3/8	150	40	1.7 + 0.8%	3.4	A
1/2	150	40	2.1 + 1.5%	4.1	A
3/4	250	40	2.8 - 0.6%	5.5	MA
1	250	40	3.4 - 0.6%	6.8	MA
1 1/4	250	40	4.1 - 0.6%	8.2	MA
1 1/2	250	40	4.8 - 0.6%	9.6	MA
2	150	40	6.2 - 0.6%	12.3	MA
2 1/2	100	40	4.1 + 3.5%	8.2	FA
3	100	40	4.8 + 4.2%	9.6	FA
4	100	40	6.2 + 5.7%	12.3	FA

\* Amount of pressure change required at regulator head for valve to go from full open to full closed or vice versa. Control is modulating around setpoint.

### For Pressure Relief

Valve Size, Inches	Max. Supply Pressure, Lbs.	Max. Setpoint Pressure, Lbs.	Minimum Setpoint Pressure Lbs. minus % Initial Pressure	Pressure* Change for Full Valve Stroke, Lbs.	Reverse-Acting Valve, Type
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#### NO. RP-1070-C2

##### Valve opens on rising pressure

1/4	150	55	2.3 - 1.0%	4.6	A
3/8	150	55	2.9-2.1%	5.7	A
1/2	150	55	3.4 - 3.9%	6.8	A
3/4	150	55	2.9 - 1.5%	5.7	FA
1	150	55	3.4 - 2.3%	6.8	FA
1 1/4	150	55	4.0 - 2.3%	8	FA
1 1/2	150	55	4.6 - 2/9%	9.1	FA

#### NO. RP-1073-C3

##### Valve opens on rising pressure

1/4	150	25	1.0 - 0.4%	2	A
3/8	150	25	1.3 - 0.8%	2.5	A
1/2	150	25	1.5 - 1.5%	3	A
3/4	150	25	1.3 - 0.6%	2.5	FA
1	150	25	1.5 - 0.9%	3	FA
1 1/4	150	25	1.8 - 0.9%	3.5	FA
1 1/2	150	25	2.0 - 1.1%	4	FA
2	100	25	2.5 - 1.4%	5	FA
2 1/2	100	25	3.0 - 3.5%	6	FA
3	100	25	3.5 - 4.2%	7	FA
4	100	25	4.5 - 5.7%	9	FA

#### RP-1073-C4

##### Valve opens on rising pressure.

1/4	150	40	1.4 - 0.4%	2.7	A
3/8	150	40	1.7 - 0.8%	3.4	A
1/2	150	40	2.1 - 1.5%	4.1	A
3/4	150	40	1.7 - 0.6%	3.4	FA
1	150	40	2.1 - 0.9%	4.1	FA
1 1/4	150	40	2.4 - 0.9%	4.8	FA
1 1/2	150	40	2.8 - 1.1%	5.5	FA
2	100	40	3.4 - 2.8%	6.8	FA
2 1/2	100	40	4.1 - 3.5%	8.2	FA
3	100	40	4.8 - 4.2%	9.6	FA
4	100	40	6.2 - 5.7%	12.3	FA

\* Amount of pressure change required at regulator head for valve to go from full open to full closed or vice versa. Control is modulating around setpoint.

## HOW TO ORDER

Specify:

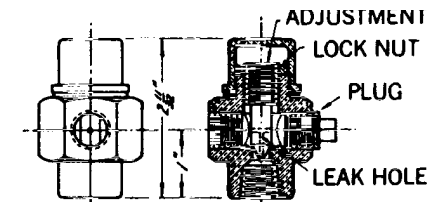
1. Quantity
2. Regulator number
3. Valve size, type, action, etc.
4. Medium through valve (steam, etc.)
5. Initial and reduced pressures (PSIG)
6. Special features desired.
7. Shipping and billing instructions

## ADJUSTABLE ORIFICE NO. 94204-A1

Damps out rapid pressure fluctuations in feeler pipe...

protects control bellows.

Always recommended but supplied only on order at extra cost.



All parts made of brass. 1/4" pipe connections. Pipe plug may be removed for installation of pressure gauge. No. 94204-A2 is available without leak hole.

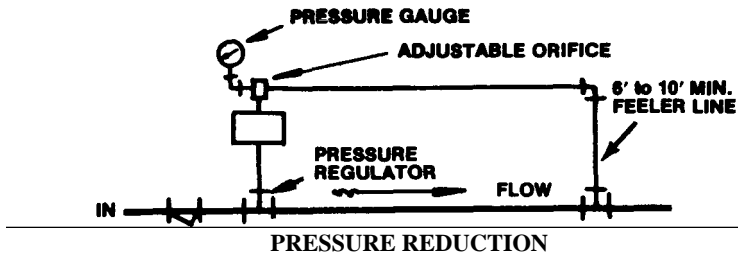


Figure 1 - Typical installation of a pressure regulator showing: feeler pipe connection, adjustable orifice and pressure gauge. Feeler pipe is connected to reduced pressure side of supply line at a point 6 ft. to 10 ft. minimum from regulator valve.

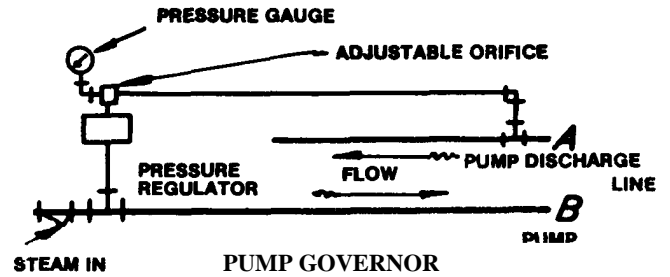


Figure 3 – Regulators can be used to protect a pump on a dual line system as a governor; single line system as a back pressure regulator; or recirculation loop as a downstream pressure relief back to pump intake. Illustrated as a pump governor on a steam-driven pump. Feeler line is connected to pump discharge line “A” so that pumped medium pressure determines the amount of steam supplied to the pump through line “B”.

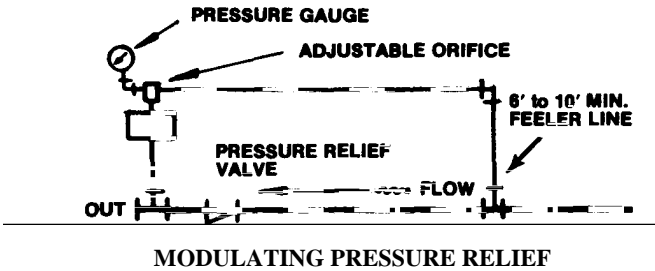
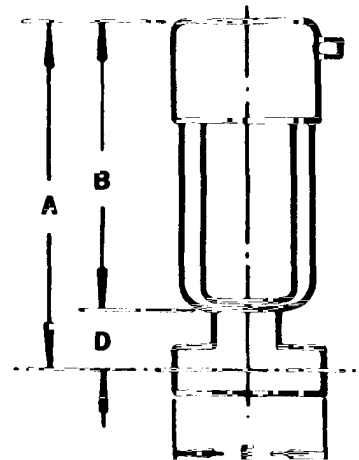


Figure 2 - Shows an installation of a pressure relief valve. The feeler pipe is connected to the high pressure or upstream side of the supply line at a point 6 ft. to 10 ft. minimum from the regulator valve.



## DIMENSIONS, SHIPPING WEIGHTS

End Connections	1/2" Screwed Unions			Screwed Unions				Flanged			
	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Valve Size, In.	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Ship. Wt., Lbs.	26	26	26	28	32	36	42	48	95	120	150
Regulator No.	RP-1070-C1, RP-1073-C1, RP-1073-C2										
Direct-Acting Valve, Type	A	A	A	MA	MA	MA	MA	MA	FA	FA	FA
No. RP-1070-C1	A	13 15/16	13 15/16	13 15/16	15 13/16	15 13/16	16	16 1/2	--	--	--
	B	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	--	--	--
No. RP-1073-C1	A	12 7/16	12 7/16	12 7/16	14 5/16	14 5/16	14 1/2	15	15 3/16	15 5/8	15 5/8
No. RP-1073-C2	B	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8
	D	1 9/16	1 9/16	1 9/16	3 7/16	3 7/16	3 5/8	4 1/8	4 15/16	4 3/4	4 3/4
	E	4 3/4	4 3/4	4 3/4	6 15/16	7 1/8	7 1/2	8 1/2	7	7 3/4	8 5/8
Regulator No.	RP-1070-C2, RP-1073-C3, RP-1073-C4										
Reverse-Acting Valve, Type	A	A	A	FA	FA	FA	FA	FA	FA	FA	FA
No. RP-1070-C2	A	13 15/16	13 15/16	13 15/16	14 3/8	14 7/8	15	15 7/16	--	--	--
	B	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	--	--	--
No. RP-1073-C3	A	12 7/16	12 7/16	12 7/16	12 7/8	12 3/8	13 1/2	13 15/16	14 3/8	14 1/2	14 3/4
No. RP-1073-C4	B	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8	10 7/8
	D	1 9/16	1 9/16	1 9/16	2	2 1/2	2 5/8	3 1/16	3 1/2	3 5/8	3 7/8
	E	4-3/4	4-3/4	4-3/4	6 3/16	7 1/4	7 7/8	8 13/16	7	7 3/4	8 5/8
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