

FEATURES

- Sizes 1/4" through 4" for inlet pressures up to 100 -1. 250 psi.
- 2. Selection of three range spans topped at 25, 40 and 55 psi. All-metal construction. High quality components from single manufacturer. Large two-ply seamless Robertshaw long life bellows.

- 3.4.5.6.7.8.9
- Heavy-duty construction with cast iron frame. Setpoint adjustment wheel Teflon* chevron "Lifetime" stem packing. Quick-disconnect valve stem
- * Registered trade name of DuPont Company

Sales Manual Section 160 PRODUCT SPECIFICATION RP-1070/1073

Pressure Regulator or Pressure Relief Valve RP-1070-C /**RP-1073-C** Series



All metal construction for Modulating Control of Pressure

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

DESCRIPTION OF CATALOGED REGULATORS

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	Max.	Max.	Minimum	Pressure*	Direct-						
Inches	Supply	Setpoint	Setpoint	Change for	Acting						
	Pressure,	Pressure,	Pressure	Full Valve	Valve,						
	Lbs.	Lbs.	Lbs.	Stroke, Lbs.	Туре						
			(plus or								
			minus %								
			Initial								
			Pressure)								
NO. RP-1070-Cl											
Valve closes on rising pressure											
1/4	150	55	2.3 + 1.0%	4.6	А						
3/8	150	55	2.9+2.1%	5.7	А						
1/2	150	55	3.4 + 3.9%	6.8	А						
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-Cl											
Valve closes on rising pressure.											
1/4	150	25	1 + 0.4%	2	А						
3/8	150	25	1.3 + 0.8%	2.5	А						
1/2	150	25	1.5 + 1.5%	3	А						
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. R	P-1073-C2								
	Val	ve closes o	on rising press	sure							
1/4	150	40	1.4 + 0.4%	2.7	А						
3/8	150	40	1.7 + 0.8%	3.4	А						
1/2	150	40	2.1 + 1.5%	4.1	А						
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.

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

For Pressure Relief										
Valve	Max.	Max.	Minimum	Pressure*	Reverse-					
Size,	Supply	Setpoint	Setpoint	Change for	Acting					
Inches	Pressur	Pressure,	Pressure	Full Valve	Valve,					
	е,	Lbs.	Lbs. minus	Stroke, Lbs.	Туре					
	Lbs.		% Initial							
			Pressure							
NO. RP-1070-C2										
Valve opals on rising pressure										
1/4	150	55	2.3 - 1.0%	4.6	Α					
3/8	150	55	2.9-2.1%	5.7	Α					
1/2	150	55	3.4 - 3.9%	6.8	А					
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	А					
3/8	150	25	1.3 - 0.8%	2.5	А					
1/2	150	25	1.5 - 1.5%	3	Α					
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		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	Α					
3/8	150	40	1.7 - 0.8%	3.4	А					
1/2	150	40	2.1 - 1.5%	4.1	Α					
3/4	150	40	1.7 - 0.6%	3.4	FΑ					
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.

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.



MODULATING PRESSURE RELIEF

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.



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".



DIMENSIONS, SHIPPING WEIGHTS

End Connections		1/2" Screwed Unions		Screwed Unions				Flanged				
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, Typ	е	A	A	A	MA	MA	MA	MA	MA	FA	FA	FA
No. RP-1070-C1	А	13 15/16	13 15/16	13 15/16	15 13/16	15 13/16	16	16 1/2	-			
	В	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8	12 3/8				
No RP-1073-CI	Α	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	16 11/16
No. RP-1073-C2	В	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	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	5 13/ 16
	Е	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	10 1/4
Regulator No.		RP-1070-C2, RP-1073-C3, RP-1073-C4										
Reverse-Acting												
Valve, Type		A	А	A	FA	FA	FA	FA	FA	FA	FA	FA
No. RP-1070-C2	А	13 15/16	13 15/16	13 15/16	14 3/8	14 7/8	15	15 7/16	-			
	В	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	А	12 7/16	12 7/16	12 7/16	12 7/8	12 3/8	13 I/2	13 15/16	14 3/8	14 1/2	14 3/4	15 1/2
No. RP-1073-C4	В	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	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	4 5/8
	Е	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	10-1/4



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