



**Isolator R:** Automatic Flow Limiting Valve

**Isolator U:** Union with CPTA (Optional CPTA and Coin-Op Airvent or CPTA and Drain Valve)

**Control Valve (CV):** Supplied By Others

**Isolator S:** Combination Y-Strainer and Ball Valve with CPTA & Drain Valve (Optional 2<sup>nd</sup> CPTA)

<b>LINE TYPE:</b>		<b>COIL TYPE:</b>	
<input type="checkbox"/> FNPT		<input type="checkbox"/> FNPT	
<input type="checkbox"/> SWT		<input type="checkbox"/> SWT <input type="checkbox"/> MNPT	
<input type="checkbox"/> QuickPress <sup>1</sup>		<input type="checkbox"/> QuickPress <sup>1</sup>	
<b>LINE SIZE:</b>	<b>COIL SIZE:</b>	<b>CV SIZE:</b>	
<input type="checkbox"/> 1/2"	<input type="checkbox"/> 1/2"	<input type="checkbox"/> 1/2"	
<input type="checkbox"/> 3/4"	<input type="checkbox"/> 3/4"	<input type="checkbox"/> 3/4"	
<input type="checkbox"/> 1"	<input type="checkbox"/> 1"	<input type="checkbox"/> 1"	
<input type="checkbox"/> 1-1/4"	<input type="checkbox"/> 1-1/4"	<input type="checkbox"/> 1-1/4"	
<input type="checkbox"/> 1-1/2"	<input type="checkbox"/> 1-1/2"	<input type="checkbox"/> 1-1/2"	
<input type="checkbox"/> 2"	<input type="checkbox"/> 2"	<input type="checkbox"/> 2"	
<b>BALL &amp; STEM:</b>			
<input type="checkbox"/> Stainless Steel ball, brass stem			
<input type="checkbox"/> Stainless Steel ball & stem			
<b>COMPONENT OPTIONS:</b>			
<input type="checkbox"/> 1-1/2" Ext Kit <input type="checkbox"/> 2" Ext Kit			
<input type="checkbox"/> Strainer 20 Mesh <input type="checkbox"/> Strainer 50 Mesh			
<input type="checkbox"/> Isolator S 2 <sup>nd</sup> CPTA <input type="checkbox"/> Union Coin-Op			
<b>HOSE OPTIONS (FNPT COIL):</b>			
<b>Swivel Type:</b> <input type="checkbox"/> MNPT <input type="checkbox"/> SWT			
<b>Length:</b> <input type="checkbox"/> 12" <input type="checkbox"/> 18" <input type="checkbox"/> 24" <input type="checkbox"/> 36"			
<b>CONTROL VALVE (CV):</b>			
<input type="checkbox"/> Customer Supplied and Installed CV			
<input type="checkbox"/> Customer Supplied CV - Installed By Griswold Controls			

## SPECIFICATIONS

**Isolator R:** Forged DZR brass automatic flow control valve assembly includes integrated isolation ball valve and stainless steel flow control cartridge. Cartridge can be removed for inspection or can be replaced without disturbing piping connections. Valve housing includes field repairable dual Teflon and EPDM o-ring seal stem, with stainless steel ball. Valve includes one fixed end connection and one union connection. Union end includes union nut and EPDM o-ring. Valve body has two ports with (1) Pressure/Temperature Test Valves, and (1) combination Pressure/Temperature Test Valves and manual air vent (**CPTA**). PSI/Temp Rating: 1/2"–1-1/2": 600WOG-400PSI/250°F. 1-1/2"L–3": 400WOG-275PSI/250°F

**Isolator S:** Ball valve and integrated strainer. Valve housing is forged DZR brass with field repairable dual Teflon and EPDM o-ring seal stem. Strainer is 20 mesh Stainless Steel and can be removed from housing without disturbing pipe connections for inspection or replacement. Valve includes one fixed connection and one union connection. Union end includes union nut and EPDM o-ring. Body has one port with combination Pressure/Temperature Test Valves (**CPTA**). Assembly includes drain valve with 3/4" hose connection with cap. PSI/Temp Rating: 1/2"–1-1/2": 600WOG-400PSI/250°F. 1-1/2"L–3": 400WOG-275PSI/250°F

**Union:** Forged DZR brass union. Union includes one fixed end connection and one union (MNPT) connection. Union end includes union nut and EPDM o-ring. Union body has one port with combination Pressure/Temperature Test Valves and manual air vent (**CPTA**). PSI/Temp Rating: 400PSI/250°F

**Drain Valve:** Brass housing, Nickel plated ball. 1/2"-1": 1/2"UNF x 3/4" NPSH. 1-1/4"-2": 3/4"UNF x 3/4" NPSH. Rated 300PSI/250°F

**Combination Pressure/Test Valve & Manual Air Vent (CPTA):** Brass Housing, EPDM Seal. Rated 1000PSI/350°F Pressure/Temperature Test Valve works in conjunction with valve body feature to function as Manual Air Vent. Requires both components to operate as manual air vent.

## NOTES

<sup>1</sup> QuickPress connections are compatible with popular press tools and are rated for maximum 200 PSI.

## MODEL NUMBER SELECTION (R.)

Size	Model Number- FNPT Line	Model Number- SWT Line	Model Number- PRESS Line	Select Coil Size & Type <sup>2</sup> for Model Number	Select CV Size for Model Number
1/2"	CP2R0_E__B0	CP2R0_L__B0	CP2R0_2__B0	FNPT:(E=1/2,F=3/4) MNPT:(H=1/2, I=3/4) SWT: (L=1/2,M=3/4) PRESS:(2=1/2,3=3/4)	MNPT:(H=1/2)
3/4"	CP2R0_F__B0	CP2R0_M__B0	CP2R0_3__B0		MNPT:(1/2=H,I=3/4)
1/2"L	CP2R1_E__B0	CP2R1_L__B0	CP2R1_2__B0	FNPT:(E=1/2,F=3/4,G=1) MNPT:(H=1/2,I=3/4,J=1) SWT:(L=1/2,M=3/4,N=1) PRESS:(2=1/2,3=3/4,1=1)	MNPT:(H=1/2)
3/4"L	CP2R1_F__B0	CP2R1_M__B0	CP2R1_3__B0		MNPT:(1/2=H,I=3/4)
1"	CP2R1_G__B0	CP2R1_N__B0	CP2R1_1__B0		MNPT:(1/2=H,I=3/4,J=1)
1"L	CP2R2_G__B0	CP2R2_N__B0	CP2R2_1__B0		MNPT:(1/2=H,I=3/4,J=1)
1-1/4"	CP2R2_P__B0	CP2R2_K__B0	CP2R2_4__B0	FNPT:(G=1,P=1-1/4,Q=1-1/2) MNPT:(J=1,S=1-1/4,T=1-1/2) SWT:(N=1,K=1-1/4,W=1-1/2) PRESS:(1=1, 4=1-1/4, 5=1-1/2)	MNPT:(1/2=H,I=3/4,J=1,S=1-1/4)
1-1/2"	CP2R2_Q__B0	CP2R2_W__B0	CP2R2_5__B0		MNPT:(1/2=H,I=3/4,J=1,S=1-1/4,T=1-1/2)
1-1/2"L	CP2R3_Q__B0	CP2R3_W__B0	CP2R3_5__B0	FNPT:(P=1-1/4,Q=1-1/2,R=2) MNPT:(S=1-1/4,T=1-1/2,U=2) SWT:(K=1-1/4,W=1-1/2,Y=2) PRESS:(4=1-1/4, 5=1-1/2, 6=2)	MNPT:(S=1-1/4,T=1-1/2)
2"	CP2R3_R__B0	CP2R3_Y__B0	CP2R3_6__B0		MNPT:(S=1-1/4,T=1-1/2,U=2)

## NOTES:

- Standard CPPs include stainless steel ball and brass stem. For optional stainless steel ball and stem change "CP" to "CS" in model number.
- Insert PSID Code in 6<sup>th</sup> digit. Insert "0" for No-Cartridge option.
- Insert Coil Size & Type in 8<sup>th</sup> digit.
- Insert Control Valve (CV) Size in 9<sup>th</sup> digit.
- Standard CPPs include (1) CPTA in Isolator S with 20 mesh strainer. For optional 2<sup>nd</sup> CPTA change "B" to "D" (20 mesh) or "G" (1 CPTA – 50 mesh) or "J" (2 CPTA – 50 mesh).
- Optional Extension Kit- includes cap and tube for insulation around handle and appropriate number of extensions for PT/CPTA included in package. Change "0" to "1" for 1-1/2" extension option or "2" for 2" extension option.<sup>3</sup>
- If Control Valve (CV) is installed at the factory by Griswold Controls add an "A" to end of model number.
- Add Swivel Type & Hose length to end of model number if applicable. For example -M24 for 24" long hoses with MNPT.

## FLOW RATES (+/-5%)

SIZE	IR MODEL NO. FOR REFERENCE	HEAD LOSS IN FEET <sup>4</sup>	PSID RANGE <sup>5</sup>	GPM
1/2", 3/4"	IR02__	7.4	2-32	0.25, 0.33, 0.50, 0.60, 0.75, 0.85, 1.00, 1.25, 1.50, 2.00, 2.50, 3.00
	IR04__	13.4	4-57	0.50, 1.00, 1.50, 2.00, 2.50, 3.00
1/2"L, 3/4", 1"	IR11__	3.5	1-14	0.33, 0.50, 0.67, 1.00, 1.33, 1.67, 2.00, 2.33, 2.67, 3.33, 4.00, 4.67, 5.00
	IR12__	7.4	2-32	0.55, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 5.00, 6.00, 7.00, 8.00
	IR14__	13.4	4-57	0.75, 1.00, 1.33, 2.00, 2.67, 3.33, 4.00, 4.67, 5.33, 6.67, 8.00, 9.33, 10.00, 11.00
	IR18__	30.0	8-128	1.10, 1.50, 2.00, 3.00, 4.00, 5.00, 6.00, 7.00, 8.00, 10.0, 12.0, 14.0, 16.0
1"L, 1-1/4", 1-1/2"	IR21__	3.5	1-14	5.33, 6.00, 6.67, 7.33, 8.00, 8.67, 9.33, 10.00, 10.67, 11.33, 12.00, 12.67, 13.33, 14.00, 14.67
	IR22__	7.4	2-32	8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0
	IR24__	13.4	4-57	10.67, 12.00, 13.33, 14.67, 16.00, 17.33, 18.67, 20.00, 21.33, 22.67, 24.00, 25.33, 26.67, 28.00, 29.33
	IR28__	30.0	8-128	16.0, 18.0, 20.0, 22.0, 24.0, 26.0, 28.0, 30.0, 32.0, 34.0, 36.0, 38.0, 40.0, 42.0, 44.0
1-1/2"L - 2"	IR31__	3.5	1-14	12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38
	IR32__	7.4	2-32	18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57
	IR34__	13.4	4-57	24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76
	IR38__	30.0	8-128	36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114

## NOTES

<sup>2</sup> Coil Type must be FNPT if hoses are required.

<sup>3</sup> Extension Option includes handle cover and accessory extensions for either 1-1/2" or 2" Insulation.

<sup>4</sup> Head Loss in Feet is provided for pump head calculations. (1 PSI = 2.307 Feet of Water)

<sup>5</sup> While valve will control the flow through the high end of PSID range, there is a limit to the maximum PSID across the cartridge before cavitation occurs. A conservative guide is: Maximum Allowable Pressure Drop = 0.5 (Inlet Pressure - Water Vapor Pressure). Cavitation is an effect that occurs when the fluid vaporizes as it goes through a port opening. As the fluid exits the port the vapor bubbles collapse back into a liquid state. The vapor bubbles imploding cause noise and vibration in the valve and can eventually destroy valves. This phenomenon is amplified when entrained air is in the system. If cavitation is a concern, then selecting a stiffer spring like 4-57 or 8-128 can help reduce risk.