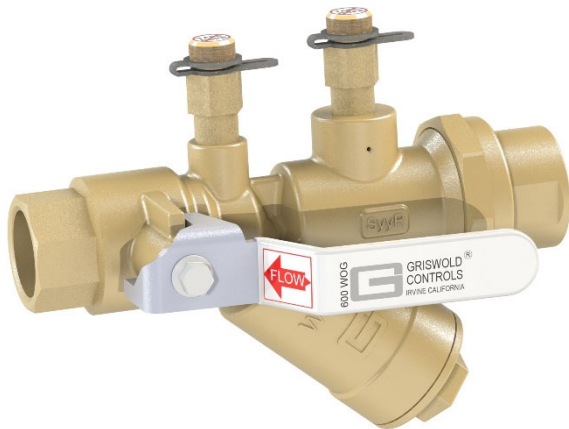


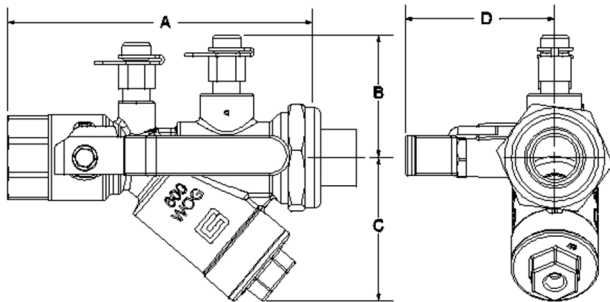
ACCESSIBLE CARTRIDGE



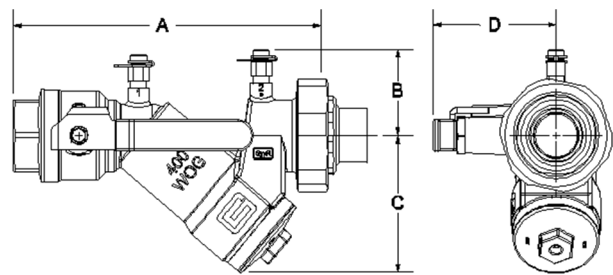
SPECIFICATIONS

- PSI/Temperature Rating:** 1/2"-1-1/2": 600 WOG 400 PSI / 250° F
1-1/2"L-3": 400 WOG 275 PSI / 250° F
- Cartridge:** AISI Type 304 stainless steel
AISI Type 17-7 PH stainless steel spring
- Body Material:** 1/2"-1-1/2": Forged brass ASTM B283-06
1-1/2"L-3": Cast brass
- End Connections:** Brass – NPT, Sweat or QuickPress¹
- Ball Valve Seals:** Teflon
- Union Seal:** EPDM O-Ring
- Body Tappings²:** Two Combination P/T Test Valve and Manual Air Vent (CPTA)
- Ball Valve:** Nickel-plated brass ball
Optional: Stainless Steel ball
- Field Repairable Stem:** Dual Teflon seals and EPDM O-ring

1/2" – 1-1/2" Housing



1-1/2"L – 3" Housing



DIMENSIONS & WEIGHTS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

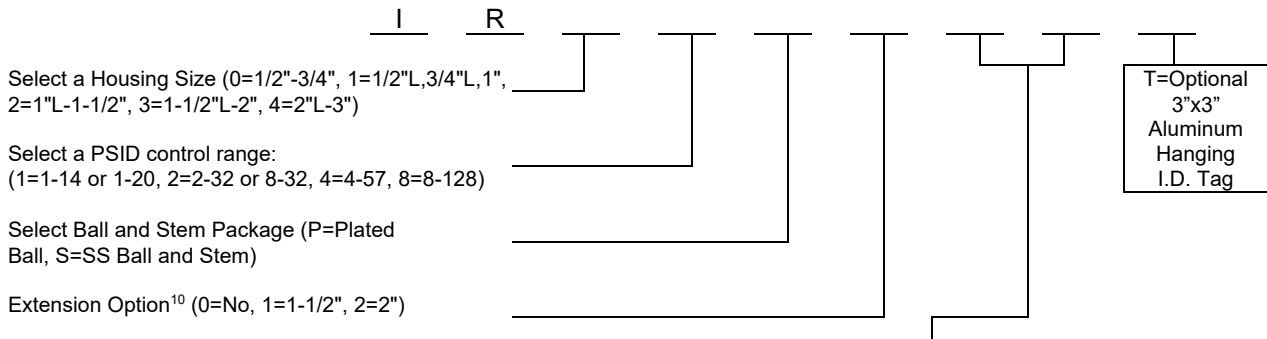
SIZE	A - FIXED END CONNECTION		UNION END CONNECTION ³						B	C	D ⁴	Cv ⁵	WEIGHT (LBS.)		
	FNPT	SWT	FNPT		MNPT		SWT								
1/2"	3.9	3.8													
3/4"	3.9	4.0	1/2":1.0	3/4":N/A ⁶	1/2":1.0	3/4":1.2	3/8",1/2":0.8	3/4":1.1	1.9	2.9	0.5,1.5 2.2	2.3	1.0		
1/2"L	5.3	5.5													
3/4"L	5.4	5.4	1/2",3/4":1.0	1":N/A ⁶	1/2"-3/4":1.0	1":1.4	3/8",3/4":1.0	1/2":0.7	1":1.3	2.2	3.6	1.6, 2.6, 3.2	10.9	2.3	
1"	5.4	5.6										2.6,3.2			
1"L	8.0	8.2													
1-1/4"	7.6	7.7	1",1-1/4",1-1/2":1.7		1",1-1/4",1-1/2":1.7 ⁷		1",1-1/4":1.7		1-1/2":1.4		2.5	3.1	3.1, 3.7	28.5	5.0
1-1/2"	7.5	7.9													
1-1/2"L	9.4	9.6	1-1/4", 1-1/2":1.6	2": N/A ⁶	1",1-1/4":1.8	1-1/2", 2":1.6	1-1/4",2":1.6	1-1/2":1.7	2.6	3.7	3.7, 4.3	40	8.8		
2"	9.3	9.8													
2"L	10.9	11.2	2": 2.5		2": 1.6		2": 1.6								
2-1/2"	12.1	N/A	N/A ⁸						2.9	4.0	4.0, 4.6	75	13.6		
3"	12.3	N/A	N/A ⁸												

For QuickPress connections add 3.1" (1/2", 1/2"L) 3.6" (3/4", 3/4"L), 4.1" (1") to the FNPT length (A) listed for a valve.

NOTES

- ¹ QuickPress is available on 1/2" to 1" valves. Connections are compatible with popular press tools and are rated for maximum 200 PSI.
- ² Body Tappings for accessories are a leak proof metal to metal seal and do not require pipe dope or tape. Tape or dope should not be used.
- ³ For overall length, add union end connection length to body length.
- ⁴ Space Saver handle standard on 1/2"-3/4" valves. Standard handle on 1" to 3" valves and 1-1/2" extended handle in 1/2" to 3" is compatible with 1-1/2" insulation. Largest extended handle is compatible with 2" insulation.
- ⁵ Cv's are based on housing without cartridge.
- ⁶ Tailpiece is not available for this size. Male tailpiece used with ASME B16.15 Class 125 coupling.
- ⁷ 1-1/4"-1-1/2" valves can also take 1/2"-3/4" MNPT tailpieces.
- ⁸ 2-1/2" and 3" Valves are fixed end by fixed end connection. Union connection is not available.

MODEL NUMBER SELECTION⁹



Valve	FIXED END OR UNION END ¹¹ (No Union Tailpiece=Z)			UNION END ONLY ¹¹
	Female Threaded	Female Sweat	QuickPress	Male Threaded
IR0	1/2"=E, 3/4"=F ¹²	3/8"=K ¹³ , 1/2"=L, 3/4"=M	1/2"=2, 3/4"=3	1/2"=H, 3/4"=I
IR1	1/2"=E, 3/4"=F, 1"=G ¹²	3/8"=K ¹³ , 1/2"=L, 3/4"=M, 1"=N	1/2"=2, 3/4"=3, 1"=1	1/2"=H, 3/4"=I, 1"=J
IR2	1"=G, 1-1/4"=P, 1-1/2"=Q	1"=N, 1-1/4"=K, 1-1/2"=W	N/A	1/2"=H, 3/4"=I, 1"=J, 1-1/4"=S, 1-1/2"=T
IR3	1-1/4"=P ¹³ , 1-1/2"=Q, 2"=R ¹²	1-1/4"=K ¹³ , 1-1/2"=W, 2"=Y	N/A	1-1/4"=S, 1-1/2"=T, 2"=U
IR4 ¹¹ (Union)	2"=L	2"=Y	N/A	1-1/4"=S, 1-1/2"=T, 2"=U
IR4 ¹¹ (Fixed End)	2"=L, 2-1/2"=M, 3"=N	N/A	N/A	N/A

FLOW RATES (+/-5%)

SIZE	MODEL NO.	HEAD LOSS IN FEET ¹⁴	PSID RANGE	GPM					
				MIN.	INCREMENT	MAX			
1/2", 3/4"	IR02	7.4	2-32 ¹⁵	0.25, 0.33, 0.50, 0.60, 0.75, 1.00, 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					
	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, 6.0, 6.67, 7.33, 8.0, 8.67, 9.33, 10.0, 10.67, 11.33, 12.0, 12.67, 13.33, 14.0, 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					
1-1/2"L - 2"	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					
	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					
1-1/2"L - 2"	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					
SIZE	MODEL NO.	HEAD LOSS IN FEET ¹⁴	PSID RANGE	GPM			HEAD LOSS IN FEET ¹⁴	PSID RANGE	HIGHER FLOW RATES/ NO INCREMENTS
				MIN.	INCREMENT	MAX			
2"L, 2-1/2", 3"	IR41	3.5	1-20	14.0	2.0	60	9.2	4-20	90, 110, 130
	IR42	7.4	2-32	17.5	2.5	75	18.4	8-32	110, 135, 160
	IR44	13.4	4-57	23.33	3.33	100	NONE		
	IR48	30.0	8-128	35.0	5.0	150	NONE		

NOTES

- ⁹ Model no. and flow rate are indicated on label affixed to body.
- ¹⁰ Extension Option includes handle cover and accessory extensions for either 1-1/2" or 2" Insulation.
- ¹¹ Select the Fixed End First and the Union End Second. For 2-1/2" and 3" size select a 2nd fixed end instead of a union end.
- ¹² Tailpiece is not available for this size. Male tailpiece used with ASME B16.15 Class 125 coupling.
- ¹³ Fixed end not available for this size. Union tailpiece only.
- ¹⁴ Head Loss in Feet is provided for pump head calculations. (1 PSI = 2.307 Feet of Water)
- ¹⁵ Systems with entrained air and fluid velocities less than 4FPS are susceptible to noise when using the 2-32 cartridge. If your system has entrained air and flowrates less than 2GPM please use the 4-57 cartridge.