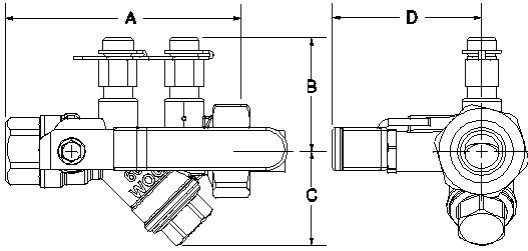


ACCESSIBLE CARTRIDGE

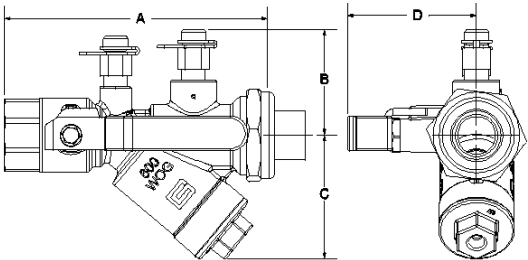
1/2" & 3/4" Housing



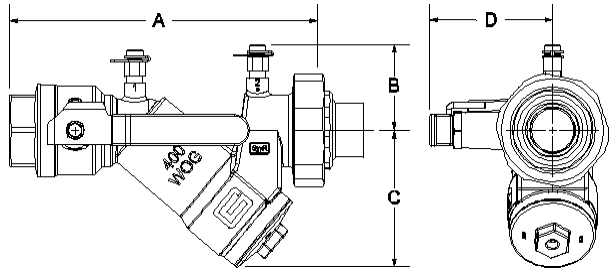
SPECIFICATIONS:

PSI/Temperature Rating:	1/2"-1-1/2": 400 PSI / 250° F 1-1/2"L-3": 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 ProPress ¹
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
Assembly:	Valve comes fully assembled

1/2"L – 1-1/2" Housing



1-1/2"L – 3" Housing



DIMENSIONS & WEIGHTS (NOMINAL)

SIZE	A - FIXED END CONNECTION		UNION END CONNECTION ³						B	C	D	Cv ⁴	WEIGHT (LBS.)	
	FNPT	SWT	FNPT		MNPT		SWT							
1/2"	3.9	3.8	1/2":1.0	3/4":N/A ⁵	1/2":1.0	3/4":1.2	3/8",1/2":0.8		3/4":1.1	1.9	2.9	2.5	2.3	1.0
3/4"	3.9	4.0					3/8",3/4":1.0		1/2":0.7	1":1.3	2.2	3.6	2.6	10.9
1/2"L	5.3	5.5	1/2",3/4":1.0	1":N/A ⁵	1/2"-3/4":1.0	1":1.4	1",1-1/4":1.7		1-1/2":1.4	2.5	3.1	3.1	28.5	5.0
3/4"L	5.4	5.4					1",1-1/4",1-1/2":1.7		1-1/2":1.6	1-1/4",2":1.6	1-1/2":1.7	2.6	3.7	3.7
1"	5.4	5.6	2": N/A ⁵		1-1/4",	1-1/2", 2":1.6	2": 1.6		2.9	4.0	4.0	75	13.6	
1"L	8.0	8.2	N/A ⁷											
1-1/4"	7.6	7.7												
1-1/2"	7.5	7.9												
1-1/2"L	9.4	9.6												
2"	9.3	9.8												
2"L	10.9	11.2												
2-1/2"	11.1	N/A												
3"	11.3	N/A												

For ProPress 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. These are for planning purpose only, contact factory for actual measurement at time of order.

NOTES

- ¹ ProPress is available on 1/2" to 1" valves only.
- 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 Cv's are based on housing without cartridge.
- ⁵ Tailpiece is not available for this size. Male tailpiece used with coupling.
- ⁶ 1-1/4"-1-1/2" valves can also take 1/2"-3/4" MNPT tailpieces.
- ⁷ 2-1/2" and 3" Valves are fixed end by fixed end connection. Union connection is not available.

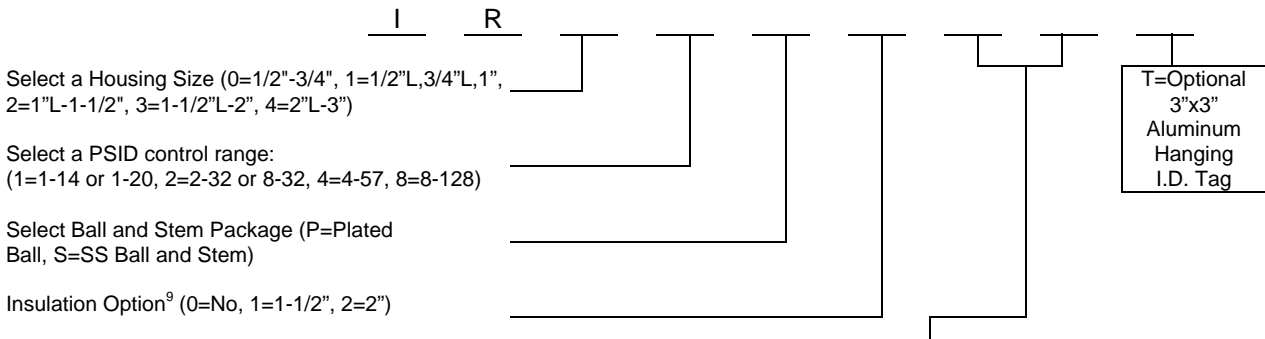
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2803 Barranca Parkway, Irvine, CA 92606
(949) 559-6000 Fax (949) 559-6088
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MODEL NUMBER SELECTION⁸



Valve	FIXED END OR UNION END ¹⁰ (No Union Tailpiece=Z)			UNION END ONLY ¹⁰
	Female Threaded	Female Sweat	ProPress ¹¹	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 ¹⁰ (Union)	2"=L	2"=Y	N/A	1-1/4"=S, 1-1/2"=T, 2"=U
IR4 ¹⁰ (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			HEAD LOSS IN FEET ¹⁴	PSID RANGE	HIGHER FLOW RATES/ NO INCREMENTS			
				MIN.	INCREMENT	MAX						
1/2", 3/4"	IR02	7.4	2-32 ¹⁵	0.25, 0.33, 0.50, 1.00, 1.50, 2.00, 2.50, 3.00			9.2	4-20	90, 110, 130			
	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			18.4	8-32	110, 135, 160			
	IR12	7.4	2-32	0.55, 0.75, 1.00, 1.50, 2.00, 2.50, 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			NONE					
	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			NONE					
	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			NONE					
2"L, 2-1/2", 3"	IR41	3.5	1-20	14.0	2.0	60				18.4	8-32	NONE
	IR42	7.4	2-32	17.5	2.5	75						
	IR44	13.4	4-57	23.33	3.33	100						
	IR48	30.0	8-128	35.0	5.0	150						

NOTES

- ⁸ Model no. and flow rate are indicated on label affixed to body.
- ⁹ Insulation Option includes handle cover and Accessory extensions.
- ¹⁰ 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.
- ¹¹ ProPress option is a tailpiece on the union side and/or a FNPT valve with a ProPress adapter on the fixed end side.
- ¹² Tailpiece is not available for this size. Male tailpiece used with 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 in the IR0 housing. If your system has entrained air and flowrates less than 2 gpm please use the 4-57 cartridge.

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