

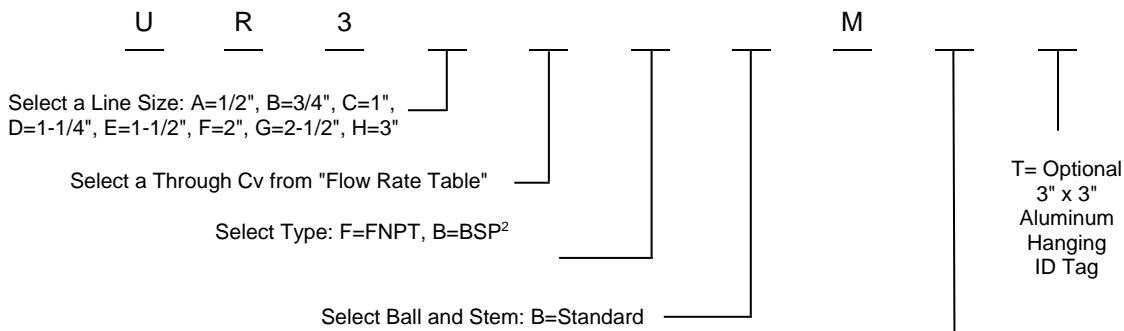
SPECIFICATIONS

Static Pressure/Temp: 360 PSI / -22°F to 250°F
Service: Chilled water, hot water, up to 50% Glycol, or contact factory for additional fluids.
Flow Optimizer: Glass Filled Polymer
Body Material: Forged Brass ASTM B283-06
End Connections: Brass – NPT or BSP
Field Repairable Stem: Dual Teflon seals and EPDM O-ring
Stem Seals: EPDM O-Rings
Ball Valve: Nickel-plated brass ball
Ball Seals: Teflon Seals with EPDM O-Rings
Angle of Rotation: 0-90°
Installation: Valve can be installed in mixing or diverting installations.

DIMENSIONS & WEIGHTS (NOMINAL) (measured in inches and lbs unless noted)

SIZE	MODEL NO.	THROUGH Cv	A:LENGTH		B:HEIGHT		C:LENGTH		D:DEPTH (NOT SHOWN)	E: HANDLE	F:HEIGHT		G:HEIGHT		WEIGHT
			FNPT	BSP	FNPT	BSP	FNPT	BSP			FNPT	BSP	FNPT	BSP	
1/2"	UR3A_	0.33, 0.59, 1.0, 2.4, 4.3, 8.0	2.7	2.7	3.4	3.4	7.0	7.0	3.0	2.0	9.5	9.5	2.0	2.0	1.6
3/4"	UR3B_	0.40, 0.66, 1.3, 2.4, 3.8, 7.0, 11.0	2.8	2.8	3.4	3.4	6.5	6.5	3.0	2.0	8.9	8.9	2.0	2.0	1.6
1"	UR3C_	0.40, 0.65, 1.3, 2.3, 3.5, 10.0	2.8	2.8	3.4	3.4	7.3	7.3	3.0	2.0	9.6	9.6	2.1	2.1	1.6
		8.6	3.0	3.0	3.9	3.9	6.8	6.8			9.9	9.9	2.4	2.4	2.3
		4.5, 14.9, 22.3, 30.8	4.3	4.3	4.1	4.1	7.8	7.8			10.9	10.9	3.3	3.3	3.6
1-1/4"	UR3D_	4.1, 8.7, 19.4	3.0	3.0	3.9	3.9	6.8	6.8	3.0	2.0	9.9	9.9	2.4	2.4	3.3
		12.7, 26.8, 34.1	3.6	3.6	4.1	4.1	7.3	7.3			10.4	10.4	2.8	2.8	3.5
1-1/2"	UR3E_	4.0, 8.3, 13.4, 32.0	3.4	3.4	4.1	4.1	7.8	7.8	3.0	2.0	10.9	10.9	2.7	2.7	3.6
		23.5, 61.1	4.0	4.0	4.6	4.6	7.3	7.3			11.1	11.1	3.2	3.2	5.2
2"	UR3F_	23.9, 38.2, 56.7	4.0	4.0	4.6	4.6	7.3	7.3	3.0	2.0	11.1	11.1	3.2	3.2	5.2
		82.6, 108.5	5.0	5.0	5.9	5.9	7.8	7.8			12.4	12.4	3.8	3.8	8.5
2-1/2"	UR3G_	38.1, 74.1, 99.5	5.3	5.3	5.9	5.9	7.8	7.8	3.0	2.0	12.4	12.4	4.1	4.1	9.1
3"	UR3H_	75, 100, 125, 150, 175, 200	9.4	9.4	4.5	N/A ²	10.1	10.1	7.1	2.0	12.3	12.3	2.8	N/A ²	23.0

MODEL NUMBER SELECTION



Insert Actuator Model Number. If Actuator is supplied by others, insert "1" for Neptronic, "2" for Johnson Controls, "3" for Schneider Electric, "4" for Honeywell, "5" for Siemens, "6" for Belimo, "7" for KMC Controls

NOTES

¹ Valve shown is 1/2" to 2-1/2". 3" valve has bypass port in Z plane.

² Not available in 3" size.

Replaces form F-4306

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THROUGH Cv SELECTION AND FLOW RATE TABLE (GPM)

LINE SIZE	MODEL NO.	THROUGH Cv	FULL ³ PORT	CLOSE OFF ⁴ P ⁴	FLOWRATE (GPM) @ DIFFERENTIAL PRESSURE (PSI)											
					2-Position HVAC Apps		HVAC Modulating Apps									
					Cv ⁵	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	7.0
1/2"	UR3A	A=0.33		50 PSI	0.2	0.33	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.9	1.0
	UR3A	B=0.59			0.4	0.59	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.6	1.9
	UR3A	C=1.0			0.7	1.0	1.2	1.4	1.6	1.7	1.9	2.0	2.1	2.2	2.6	3.2
	UR3A	D=2.4			1.7	2.4	2.9	3.4	3.8	4.2	4.5	4.8	5.1	5.4	6.3	7.6
	UR3A	E=4.3			3.0	4.3	5.3	6.1	6.8	7.4	8.0	8.6	9.1	9.6	11.4	13.6
	UR3A	F=8.0			5.7	8.0	9.8	11.3	12.6	13.9	15.0	16.0	17.0	17.9	21.2	25.3
3/4"	UR3B	A=0.40		50 PSI	0.3	0.40	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.1	1.3
	UR3B	B=0.66			0.5	0.66	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.7	2.1
	UR3B	C=1.3			0.9	1.3	1.6	1.8	2.1	2.3	2.4	2.6	2.8	2.9	3.4	4.1
	UR3B	D=2.4			1.7	2.4	2.9	3.4	3.8	4.2	4.5	4.8	5.1	5.4	6.3	7.6
	UR3B	E=3.8			2.7	3.8	4.7	5.4	6.0	6.6	7.1	7.6	8.1	8.5	10.1	12.0
	UR3B	G=7.0			4.9	7.0	8.6	9.9	11.1	12.1	13.1	14.0	14.8	15.7	18.5	22.1
	UR3B	F=11.0	•		7.8	11.0	13.5	15.6	17.4	19.1	20.6	22.0	23.3	24.6	29.1	34.8
1"	UR3C	A=0.40		50 PSI	0.3	0.40	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.1	1.3
	UR3C	B=0.65			0.5	0.65	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.7	2.1
	UR3C	C=1.3			0.9	1.3	1.6	1.8	2.1	2.3	2.4	2.6	2.8	2.9	3.4	4.1
	UR3C	D=2.3			1.6	2.3	2.8	3.3	3.6	4.0	4.3	4.6	4.9	5.1	6.1	7.3
	UR3C	E=3.5			2.5	3.5	4.3	4.9	5.5	6.1	6.5	7.0	7.4	7.8	9.3	11.1
	UR3C	F=10.0			7.1	10.0	12.2	14.1	15.8	17.3	18.7	20.0	21.2	22.4	26.5	31.6
	UR3C	G=8.6			6.1	8.6	10.5	12.1	13.6	14.9	16.1	17.2	18.2	19.2	22.7	27.2
	UR3C	H=22.3			15.8	22.3	27.3	31.5	35.3	38.6	41.7	44.6	47.3	49.9	59.0	70.5
	UR3C	J=14.9			10.5	14.9	18.2	21.1	23.6	25.8	27.9	29.8	31.6	33.3	39.4	47.1
	UR3C	K=4.5			3.2	4.5	5.5	6.4	7.1	7.8	8.4	9.0	9.5	10.1	11.9	14.2
UR3C	M=30.8		21.8	30.8	37.7	43.6	48.7	53.3	57.6	61.6	65.3	68.9	81.5	97.4		
1-1/4"	UR3D	B=19.4	•	40 PSI	13.7	19.4	23.8	27.4	30.7	33.6	36.3	38.8	41.2	43.4	51.3	61.3
	UR3D	C=12.7			9.0	12.7	15.6	18.0	20.1	22.0	23.8	25.4	26.9	28.4	33.6	40.2
	UR3D	D=4.1			2.9	4.1	5.0	5.7	6.4	7.0	7.6	8.1	8.6	9.1	10.7	12.8
	UR3D	E=8.7			6.1	8.7	10.6	12.3	13.7	15.0	16.2	17.3	18.4	19.4	22.9	27.4
	UR3D	F=34.1	•		24.1	34.1	41.8	48.2	53.9	59.1	63.8	68.2	72.3	76.2	90.2	107.8
	UR3D	G=26.8			19.0	26.8	32.8	37.9	42.4	46.4	50.1	53.6	56.9	59.9	70.9	84.7
1-1/2"	UR3E	A=13.4		40 PSI	9.5	13.4	16.4	18.9	21.1	23.2	25.0	26.7	28.4	29.9	35.4	42.3
	UR3E	B=4.0			2.8	4.0	4.9	5.7	6.4	7.0	7.5	8.1	8.5	9.0	10.7	12.7
	UR3E	C=8.3			5.8	8.3	10.1	11.7	13.1	14.3	15.5	16.5	17.5	18.5	21.9	26.1
	UR3E	D=32.0	•		22.6	32.0	39.2	45.3	50.6	55.5	59.9	64.0	67.9	71.6	84.7	101.3
	UR3E	E=23.5			16.6	23.5	28.8	33.3	37.2	40.8	44.0	47.1	49.9	52.6	62.3	74.4
	UR3E	F=61.1			43.2	61.1	74.8	86.4	96.6	105.8	114.3	122.2	129.6	136.6	161.6	193.2
2"	UR3F	A=23.9		40 PSI	16.9	23.9	29.3	33.8	37.8	41.4	44.7	47.8	50.7	53.4	63.2	75.6
	UR3F	B=56.7			40.1	56.7	69.4	80.2	89.7	98.2	106.1	113.4	120.3	126.8	150.0	179.3
	UR3F	C=38.2			27.0	38.2	46.8	54.0	60.4	66.2	71.5	76.4	81.0	85.4	101.1	120.8
	UR3F	D=108.5			76.7	108.5	132.9	153.4	171.6	187.9	203	217	230	243	287	343
	UR3F	E=82.6			58.4	82.6	101.2	116.8	130.6	143.1	154.5	165.2	175.2	184.7	219	261
2-1/2"	UR3G	A=38.1		40 PSI	26.9	38.1	46.7	53.9	60.2	66.0	71.3	76.2	80.8	85.2	100.8	120.5
	UR3G	C=74.1			52.4	74.1	90.8	104.8	117.2	128.3	138.6	148.2	157.2	165.7	196.1	234
	UR3G	B=99.5	•		70.4	99.5	121.9	140.7	157.3	172.3	186.1	199.0	211	223	263	315
3"	UR3H	A=75.0		70 PSI	53.0	75.0	91.9	106.1	118.6	129.9	140.3	150.0	159.1	167.7	198.4	237
	UR3H	B=100.0			70.7	100.0	122.5	141.4	158.1	173.2	187.1	200	212	223	264	316
	UR3H	C=125.0			88.4	125.0	153.1	176.8	197.6	216	234	250	265	279	331	395
	UR3H	D=150.0			106.0	150.0	183.7	212	237	260	281	300	318	335	397	474
	UR3H	E=175.0			123.7	175.0	214	247	277	303	327	350	371	391	463	553
	UR3H	F=200.0	•		141.4	200	245	283	316	346	374	400	424	447	529	632

NOTES

³ These valves are full port and do not have the Optimizer insert.

⁴ Close-Off Pressures measured with 35 in-lb. actuator. The "Close Off Pressure" is the maximum allowable pressure drop across the valve body when the valve is fully closed. (Do not use actuators with torques higher than 90 in-lbs)

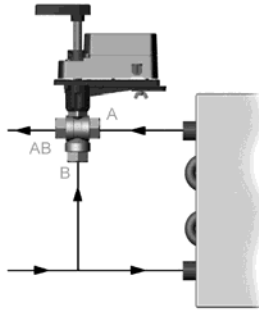
⁵ The Cv is the gallons of water per minute (gpm) at 60°F that the valve will pass at 1 PSI pressure drop. Hence the 1.0 PSI pressure differential column in the table above is equivalent to the Cv value.

Replaces form F-4306

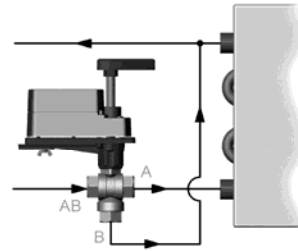


PIPING CONFIGURATIONS

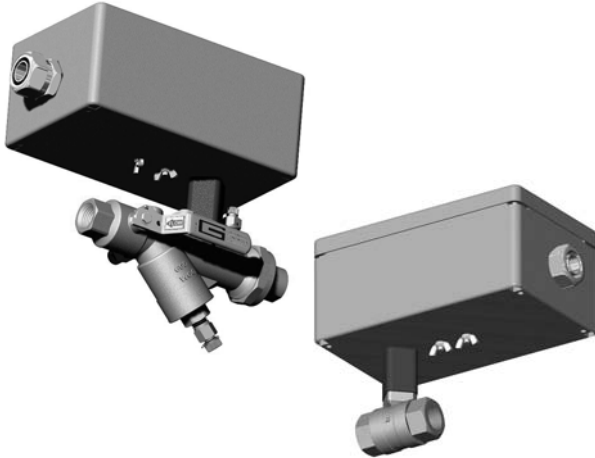
Our 3-Way ball allows the same 3-Way valve to be installed in either a mixing or diverting configuration without sacrificing any performance or Cv. (Valve shown is 1/2"-2-1/2". 3" valve has bypass port in Z plane.)



Mixing — fluid enters through two inlets (A, B) and exits through one outlet (AB)



Diverting — fluid enters through one inlet (AB) and exits through two outlets (A, B)



SPECIFICATIONS

Ambient Temperature:	-20°F to 175°F
Material:	Gray Polycarbonate
Lid Gasket:	Neoprene
Screws:	Spring Loaded Stainless Steel
Protection:	IP65
Rating:	Weather Tight ¹
Installation:	3/4" Conduit Connector provided
Compatibility:	Griswold Automizer, PIC-V and Unimizer

DIMENSIONS & WEIGHTS (NOMINAL) (inches – lbs.)

MODEL NO.	ACTUATOR COMPATIBILITY	Height	Width	Length
9656-745	KMC MEP-400x, MEP-455x, MEP-420x	3.9	4.7	9.5
9656-877	KMC MEP-537x	4.7	6.3	9.5
9656-626	Siemens GDEx	3.0	4.7	7.9
9656-687	Siemens GMAx	3.9	4.7	9.4
9656-703	Honeywell ML6161x	3.0	4.7	7.9
9656-704	Honeywell ML6185x	3.9	4.7	9.4
9656-705	Schneider Electric	3.9	4.7	9.4
9656-643	Neptronic BB	3.9	4.7	9.4
9656-627	Johnson M9106x	3.0	4.7	7.9
9656-686	Belimo LMx	3.0	4.7	7.9

NOTES

¹ Enclosures provide moderate protection for actuators mounted outdoors. The enclosures are not watertight. Please contact factory if watertight protection is required.

Replaces form F-4402

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