Embrace the Technology®

CircuitSolver®

A ThermOmegaTech® brand

CircuitSolver® Balancing Valves With ProPEX

Uponor ProPEX® connections make the CircuitSolver® thermostatic balancing valve now even easier to implement into domestic hot water systems. Uponor ProPEX® technology requires less piping and significantly fewer connections reducing installation time and increasing reliability and performance.

CircuitSolver Balancing Valves With ProPEX

For seamless installation, operation, and maintenance, CircuitSolver® configurations with ProPEX combines CircuitSolver's efficient and reliable domestic hot water balancing technology with Uponor ProPEX® fittings for easy installation in ProPEX systems that use expansion-type joints to connect PEX piping.

To ensure complete peace of mind, each and every unit is fully assembled and leak tested before leaving our facility. The CircuitSolver® technology you rely on to automatically and continuously balance your domestic hot water system has never been easier!

Benefits

- Reliable, long lasting thermal actuator
- Direct replacement for manual balancing valves
- Compatible with all domestic hot water recirculation systems designed with ProPEX piping
- Uponor ProPEX® fittings come installed on the valve assembly saving time and labor costs
- CircuitSolver® valves are NSF/ANSI/CAN 61 or 372 Certified

Design Features

- Automatically and continuously adjusts to balance domestic hot water systems
- Equipped with Uponor ProPEX® fittings for easy installation into ProPEX systems
- Uponor® technology makes permanent, secure connections without the use of torches, glues, gauges, solder, or calibration needed
- The valve never fully closes - small bypass of flow
- Every unit is tested for actuator accuracy and leak points for optimal compatibility

For more information and your local product representative, visit CircuitSolver.com

All CircuitSolver® Valves are NSF/ANSI/CAN 61 or 372 Certified

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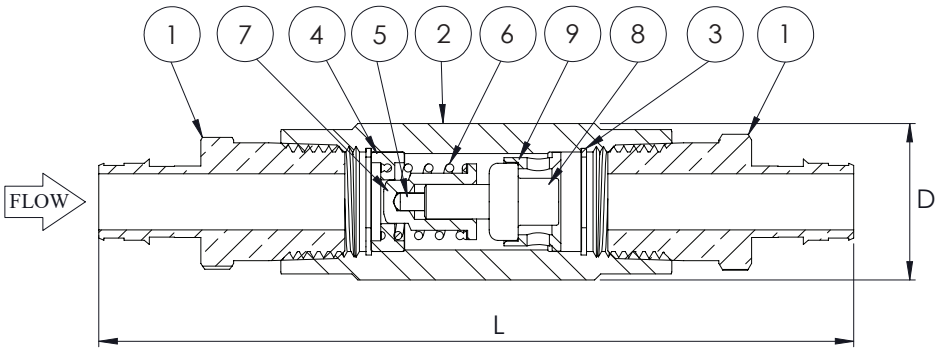
(877) 379-8258

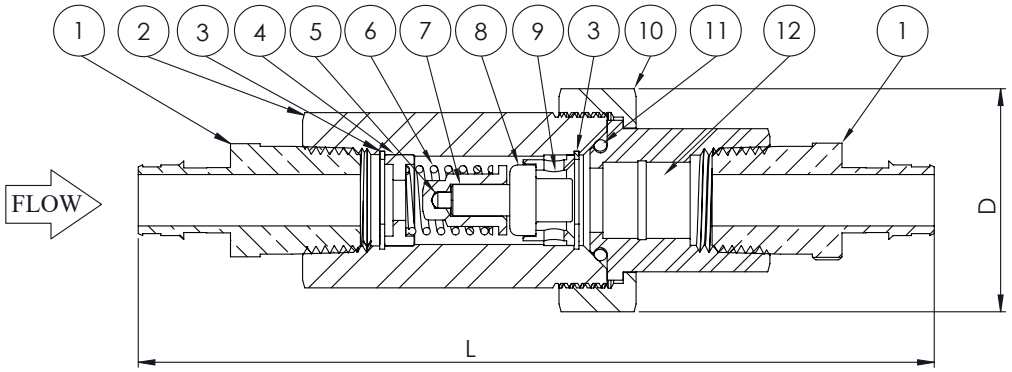
CircuitSolver® ProPEX (CS-PX)



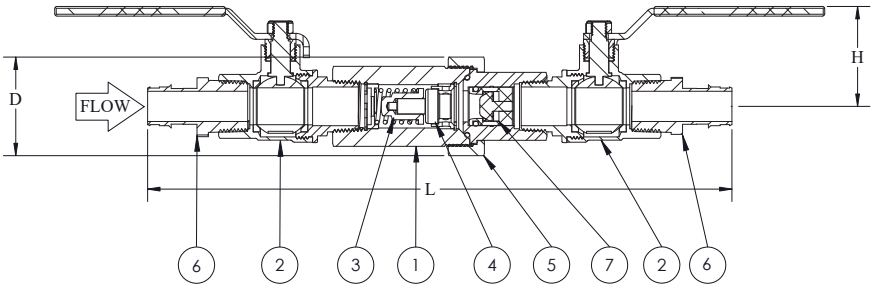
ITEM #	DESCRIPTION
1	ADAPTER, PROPEX
2	VALVE BODY
3	RETAINING RING
4	INSERT
5	PISTON
6	SPRING
7	PLUG
8	ACTUATOR
9	CARRIER

CircuitSolver® Union ProPEX (CSU-PX)

ITEM #	DESCRIPTION
1	ADAPTER, PROPEX
2	VALVE BODY
3	RETAINING RING
4	INSERT
5	PISTON
6	SPRING
7	PLUG
8	ACTUATOR
9	CARRIER
10	UNION NUT
11	O-RING
12	CHECK VALVE (OPTIONAL)



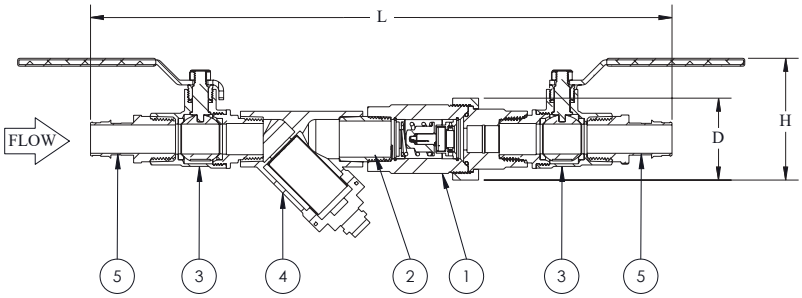
CircuitSolver® Union Assembly ProPEX (CSUA-PX)



ITEM #	DESCRIPTION
1	VALVE BODY W/ UNION THREADS
2	BALL VALVE
3	PLUG
4	THERMAL ACTUATOR
5	UNION NUT
6	ADAPTER, PROPEX
7	CHECK VALVE (OPTIONAL)

CircuitSolver® Union Assembly ProPEX with Strainer (CSUAS-PX)

ITEM #	DESCRIPTION
1	CIRCUITSOLVER® THERMOSTATIC BALANCING VALVE WITH INTEGRATED UNION
2	NIPPLE, LEAD FREE
3	BALL VALVE, MxF, LEAD FREE
4	STRAINER, LEAD FREE
5	ADAPTER, PROPEX

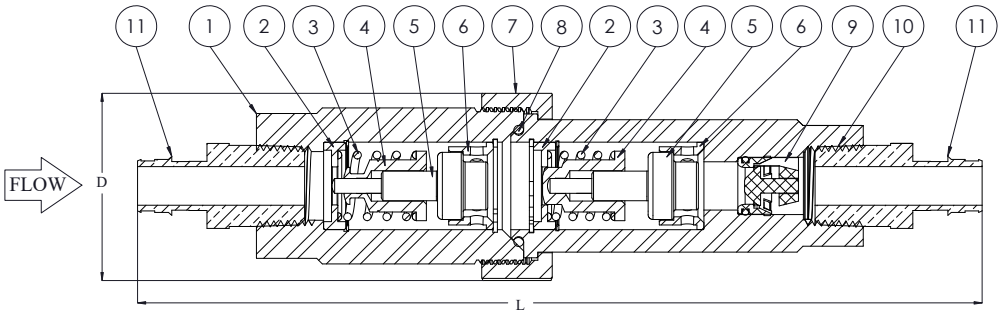


Dimensions & Capacities

Model	SIZE (NPT)	Diameter (D)		Length (L)		Height (H1)		Height (H2)		WEIGHT		C_v			MAXIMUM OPERATING PRESSURE		MAXIMUM TEMPERATURE	
		IN.	MM	IN.	MM	IN.	MM	IN.	MM	LBS.	KG	OPEN	CLOSED	DESIGN	PSIG	BAR	°F	°C
CS-PX	1/2″	1.1	28	5.3	135	N/A	N/A	N/A	N/A	0.8	0.4	1.3	0.2	0.60	200	14	250	121
CS-PX	3/4″	1.4	34	6.2	157	N/A	N/A	N/A	N/A	0.9	0.4	1.8	0.2	0.85				
CS-PX	1″	1.7	43	7.1	180	N/A	N/A	N/A	N/A	2.2	1.0	3.3	0.2	1.57				
CSU-PX	1/2″	1.7	43	6.2	157	N/A	N/A	N/A	N/A	1.5	0.7	1.3	0.2	0.60				
CSU-PX	3/4″	1.9	48	7.3	185	N/A	N/A	N/A	N/A	1.9	0.9	1.8	0.2	0.85				
CSU-PX	1″	2.4	61	8.3	211	N/A	N/A	N/A	N/A	3.8	1.7	3.3	0.2	1.57				
CSUA-PX	1/2″	1.8	46	10.2	257	1.8	46	N/A	N/A	2.8	1.3	1.3	0.2	0.60				
CSUA-PX	3/4″	2.0	51	11.8	300	2.0	51	N/A	N/A	3.9	1.8	1.8	0.2	0.85				
CSUA-PX	1″	2.5	64	14.3	363	2.3	59	N/A	N/A	6.2	2.8	2.5	0.2	1.57				
CSUAS-PX	1/2″	1.8	46	13.6	345	1.8	46	2.5	64	2.8	1.3	1.3	0.2	0.60				
CSUAS-PX	3/4″	2.0	51	15.4	391	2.0	51	3.3	84	4.7	2.1	1.8	0.2	0.85				
CSUAS-PX	1″	2.5	64	18	456	2.3	59	3.8	97	7.4	3.4	3.3	0.2	1.57				

CircuitSolver® Thermal Disinfection Dual ProPEX (CSUTD-D-PX)

ITEM #	DESCRIPTION
1	VALVE BODY W/ UNION THREADS
2	CIRCUITSOLVER® INSERT
3	SPRING
4	PLUG
5	THERMAL ACTUATOR
6	CARRIER
7	UNION NUT
8	O-RING
9	CHECK VALVE (OPTIONAL)
10	FEMALE THREADED INSERT
11	ADAPTER, PROPEX



CSUTD-D-PX Dimensions & Capacities

Model	SIZE (NPT)	Diameter (D)		Length (L)		WEIGHT		Standard Balancing C_v			Thermal Disinfection Balancing C_v			MAXIMUM OPERATING PRESSURE		MAXIMUM TEMPERATURE	
		IN.	MM	IN.	MM	LBS.	KG	OPEN	CLOSED	DESIGN	OPEN	CLOSED	DESIGN	PSIG	BAR	°F	°C
CSUTD-D-PX	1/2″	2.0	51	8.6	218	2.7	1.2	1.2	0.2	0.60	0.5	0.2	0.60	200	14	250	121
CSUTD-D-PX	3/4″	2.0	51	9.2	233	2.9	1.3	1.2	0.2	0.85	0.5	0.2	0.85				
CSUTD-D-PX	1″	2.4	60	10.1	257	4.8	2.2	2.0	0.2	1.57	0.8	0.2	1.57				

Ordering Information

CircuitSolver® ProPEX

CS-1/2-XXX-PX	½" CIRCUITSOLVER WITH PROPEX FITTINGS
CS-3/4-XXX-PX	¾"CIRCUITSOLVER WITH PROPEX FITTINGS
CS-1-XXX-PX	1" CIRCUITSOLVER WITH PROPEX FITTINGS

CircuitSolver® Union Assembly ProPEX

CSUA-1/2-XXX-PX	½" CSUA-PX WITHOUT CHECK VALVE
CSUA-1/2-XXX-CV1-PX	½" CSUA-PX WITH CHECK VALVE (CV1)
CSUA-3/4-XXX-PX	¾" CSUA-PX WITHOUT CHECK VALVE
CSUA-3/4-XXX-CV1-PX	¾" CSUA-PX WITH CHECK VALVE (CV1)
CSUA-1-XXX-PX	1" CSUA-PX WITHOUT CHECK VALVE
CSUA-1-XXX-CV1-PX	1" CSUA-PX WITH CHECK VALVE (CV1)

CircuitSolver® Thermal Disinfection Dual ProPEX

CSUTD-D-1/2-XXX-PX	½" CSUTD-D-PX WITHOUT CHECK VALVE
CSUTD-D-1/2-XXX-CV1-PX	½" CSUTD-D-PX WITH CHECK VALVE (CV1)
CSUTD-D-3/4-XXX-PX	¾" CSUTD-D-PX WITHOUT CHECK VALVE
CSUTD-D-3/4-XXX-CV1-PX	¾" CSUTD-D-PX WITH CHECK VALVE (CV1)
CSUTD-D-1-XXX-PX	1" CSUTD-D-PX WITHOUT CHECK VALVE
CSUTD-D-1-XXX-CV1-PX	1" CSUTD-D-PX WITH CHECK VALVE (CV1)

CircuitSolver® Union ProPEX

CSU-1/2-XXX-PX	½" CSU-PX WITHOUT CHECK VALVE
CSU-1/2-XXX-CV1-PX	½" CSU-PX WITH CHECK VALVE (CV1)
CSU-3/4-XXX-PX	¾" CSU-PX WITHOUT CHECK VALVE
CSU-3/4-XXX-CV1-PX	¾" CSU-PX WITH CHECK VALVE (CV1)
CSU-1-XXX-PX	1" CSU-PX WITHOUT CHECK VALVE
CSU-1-XXX-CV1-PX	1" CSU-PX WITH CHECK VALVE (CV1)

CircuitSolver® Union Assembly ProPEX with Strainer

CSUAS-1/2-XXX-PX	½" CSUAS-PX WITHOUT CHECK VALVE
CSUAS-1/2-XXX-CV1-PX	½" CSUAS-PX WITH CHECK VALVE (CV1)
CSUAS-3/4-XXX-PX	¾" CSUAS-PX WITHOUT CHECK VALVE
CSUAS-3/4-XXX-CV1-PX	¾" CSUAS-PX WITH CHECK VALVE (CV1)
CSUAS-1-XXX-PX	1" CSUAS-PX WITHOUT CHECK VALVE
CSUAS-1-XXX-CV1-PX	1" CSUAS-PX WITH CHECK VALVE (CV1)

Model Selection

XXX refers to the desired closing temperature. When the water temperature drops below this point the CircuitSolver® will begin to open, allowing water to easily enter the return line. For example, if you want 120°F desired return temperature and the CSUA-PX is to be installed on a 3/4" line, the model number would be CSUA-3/4-120-PX. To add optional check valve insert –CV1 directly after the temperature designation in the model number. Ex. CSUA-3/4-120-CV1-PX

Notes:

1. The CircuitSolver® valve is fully open approximately 10°F below the closing temperature.
2. Typical closing temperatures of the actuator include: 100°F, 105°F, 110 °F, 115°F, 120°F, 125°F, 130°F, and 140°F.
3. Warranty information disclosed at https://circuitsolver.com/terms-conditions/
4. ProPEX® and Uponor® are registered trademarks of Uponor. Consult the Uponor ProPEX® installation manual below: https://www.uponor.com/en-us/customer-support/order-manuals.
5. Zero Lead identifies Uponor products meeting the lead-free requirements of NSF 61-G through testing under NSF/ANSI 372 (0.25% or less maximum weighted average lead content).