CircuitSolver®

A ThermOmegaTech® brand



CircuitSolver® Thermal Disinfection Dual thermostatic balancing valve for domestic hot water systems

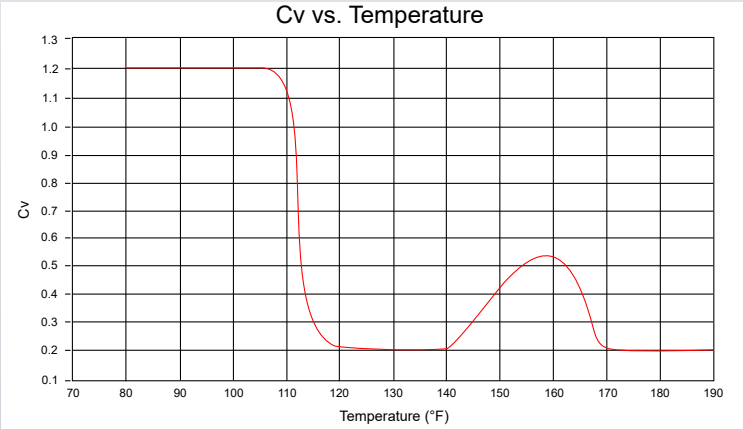
CircuitSolver® is a self-actuating thermostatic balancing valve that automatically and continuously adjusts flow through a domestic hot water recirculation system to maintain the specified temperature at the end of the branch/riser.

The CircuitSolver® Thermal Disinfection Dual (CSUTD-D) valve allows for higher water temperatures to flow through the system during a thermal disinfection process to protect against Legionella and other bacterial growth.



This valve uses two thermal actuators to control the flow of water through a branch/riser. When the water temperature in the line reaches the set-point of the low temperature actuator, the CircuitSolver® modulates to its closed position to keep the hot water at the fixtures. This forces the additional water on to the other branches maintaining a constantly balanced system.

During the thermal disinfection process, the low temperature actuator will begin to reopen, allowing the high temperature water to flow through the branch again. When the water temperature reaches the set-point of the second (high temperature) actuator, the CircuitSolver® modulates to its closed position again to keep the high temperature water at the fixtures. *See the Cv Chart below.*



The CircuitSolver® Thermal Disinfection Dual valve is tamper-proof and operates at the ideal line temperature for standard balancing while also allowing higher water temperatures during the disinfection processes.

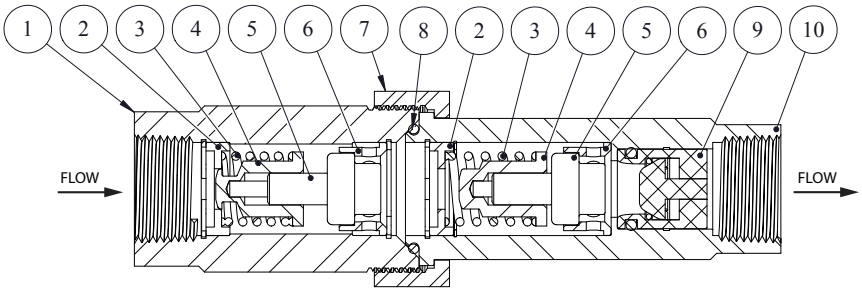
For more information and your local product representative, visit CircuitSolver.com

Benefits

- Automatically and continuously adjusts to balance domestic hot water systems
- Eliminates balancing labor and callbacks
- Direct replacement for manual balancing valves
- Reliable, long lasting thermal actuators
- Allows for thermal disinfection flushing of the DHWR system to protect against Legionella growth
- Long service life and 10 year warranty
- NSF/ANSI/CAN 61 or 372 certified

Design Features

- Never fully closes, small bypass of flow
- Two high thrust actuators keep orifices free of debris
- Low-temperature actuator maintains standard balancing temperature
- High-temperature actuator allows for higher temperatures during a disinfection process
- Lead free for use in potable water systems
- All stainless steel, corrosion resistant construction



ITEM #	DESCRIPTION	MATERIAL
1	Valve Body w/ Union Threads	300 Series SS
2	Insert - CircuitSolver®	300 Series SS
3	Spring	300 Series SS
4	Plug	300 Series SS
5	Thermal Actuator	300 Series SS
6	Carrier	300 Series SS
7	Union Nut	300 Series SS
8	O-ring	BUNA-N
9	Check Valve (optional)	GLASS FILLED NORYL
10	Insert - Female Threaded	300 Series SS

Dimensions & Capacities

Model Number	SIZE	Diameter (D)		Length (L)		WEIGHT		MAXIMUM OPERATING PRESSURE		MAXIMUM TEMPERATURE	
	NPT	IN.	MM	IN.	MM	LBS.	KG	PSIG	BAR	˚F	˚C
CSUTD-D-1/2-XXX[2]/170[3]	1/2″	2.0	51	6.3	160	2.5	1.1	200	14	250	121
CSUTD-D-1/2-XXX[2]/170[3]-CV1											
CSUTD-D-3/4-XXX[2]/170[3]	3/4″	2.0	51	6.3	160	2.5	1.1				
CSUTD-D-3/4-XXX[2]/170[3]-CV1											
CSUTD-D-1-XXX[2]/170[3]	1″	2.4	60	6.7	169	4.0	1.8				
CSUTD-D-1-XXX[2]/170[3]-CV1											

Model Selection

XXX refers to the desired closing temperature for standard balancing. For example, if you want 120°F desired return temperature during standard balancing and a 170˚F maximum temperature flowing through the system fixtures installed on a 3/4″ line, the model number would be CSUTD-D-3/4-120/170. To add optional check valve insert -CV1 directly after the temperature designation in the model number.

Notes:

1. The CircuitSolver® valve is fully open approximately 10°F below the closing temperature.
2. Typical closing temperatures of the low temperature actuator include: 100°F, 105°F, 110°F, 115°F, 120°F, 125°F, 130°F, and 140°F.
3. Standard temperature for the high temperature actuator is 170°F.
4. Warranty information disclosed at https://circuitsolver.com/terms-conditions/

Because of continuous improvements, ThermOmegaTech®, Inc. reserves the right to change the design and specifications without notice