Thermal Circuit-Control TRV

THERMOSTATIC RECIRCULATION VALVE
HOT WATER FROM ANY TAP, ANY TIME

Application:

Install a Thermal Circuit-Control TRV on each hot water supply branch line immediately downstream of the last runout to a hot tap.

Operation:

WINNING Thermal Circuit-Control Valves utilize a reliable self-contained WINNING Thermo Element which is sensitive to temperature and operates without any electrical power or air pressure. Typically in heat water system, when entering water temperature is below Thermal Circuit-Control TRV set point, the thermal actuator will begin to open the valve to establish a flow rate that will achieve set point. If the water temperature exceeds the set point, the valve will begin to throttle back to find the current equilibrium point. Continuously operating at the optimum temperature minimizes system heat-loss thereby saving energy.

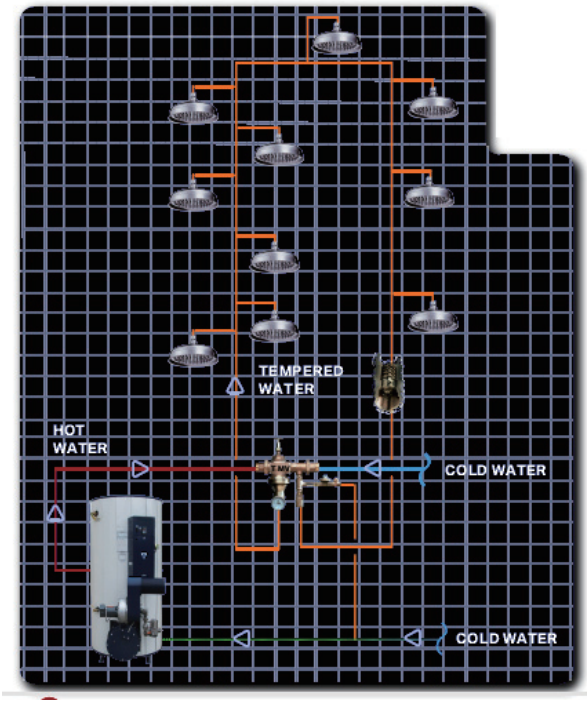
This constant, automatic response to water temperature enables each hot water branch to quickly and consistently deliver the right temperature of hot water to each connected fixture.

Design Features:

- Stainless steel body with NPT female connections
- Stainless valve plug, piston, return spring and Brass thermal actuator
- Thermal actuator develops 40 lbs. of thrust to keep valve orifice free of deposits
- Removable thermal actuator

Advantages of installing the Thermal Circuit-Control TRV

- get hot water where you need it at every turn of the tap automatically, reliably and economically.
- Eliminates the need to oversize system recirculating pumps to create constant flow through manually adjusted balancing valves.
- Minimizes heat-loss by reducing fluctuations in average temperature and gpm of the common return line.
- Lowers gpm flow in hot water return lines minimizing erosion-corrosion problems caused by excessive velocity.



SINGLE CONTINUOUS DOMESTIC
HOT WATER SUPPLY LOOP (NO BRANCHES)

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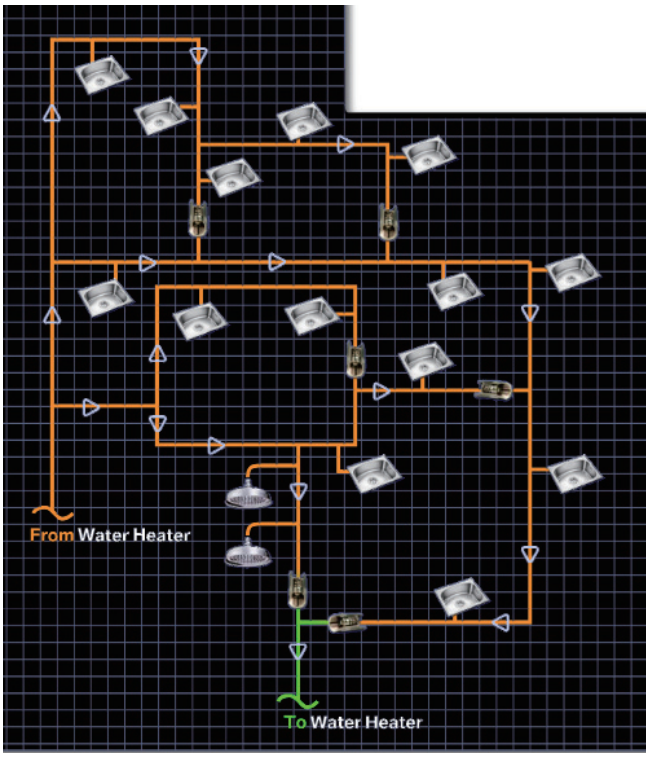
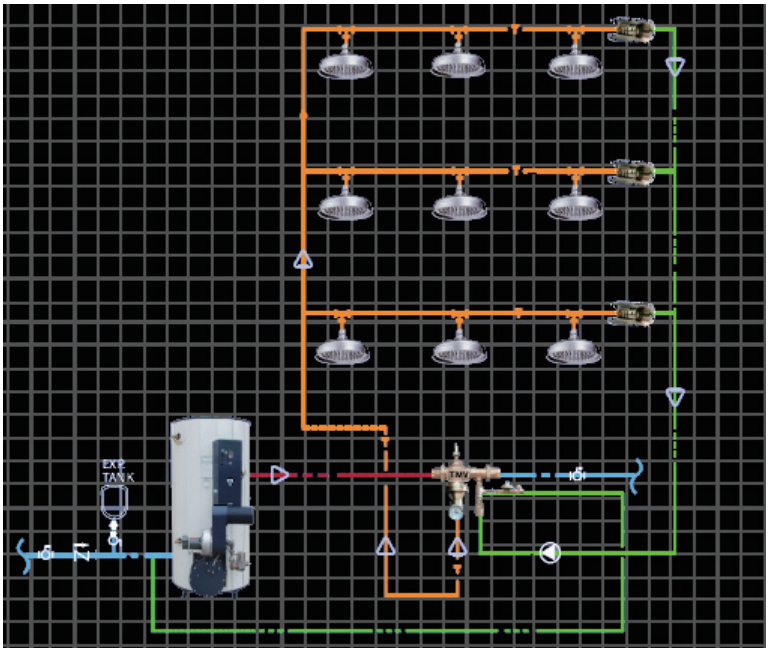


BUILDINGS WITH WIDELY SPACED
RANDOM FIXTURE LOCATIONS



MULTI-BRANCH DOMESTIC
HOT WATER SYSTEM

	Flow Rate	GPM@1 PSIΔP	Port Size	Diameter	Length	Weight	Max Pressure	Max Temp
Model No.	CV	Max	NPT	mm	mm	g	MPa	° C
TCC-1/2-XXX	1.2	0.5	0.5″	28.7	72	272	1.4	120
TCC-3/4-XXX	1.7	1.2	0.75″	35	80	318	1.4	120
TCC-1-XXX	3.2	2.6	1.0″	44	86	726	1.4	120
TCC-1.25-XXX	5.0	5.0	1.25″	54	119	1225	1.4	120
TCC-1.5-XXX	7.5	11.0	1.5″	60	119	1724	1.4	120
TCC-2-XXX	14.0	18.5	2.0″	76	124	2540	1.4	120

Model Number Selection

Match the pipe size.
Select a temperature that is the same as the water leaving the mixing valve.
For Example:
1. Branch hot water line is 3/4” IPS.
2. Mixing Valve is delivering 45°C.
3. Select Model Number TCC-3/4-45

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