



Solar Hot Water Freeze Protection Valve

Solar Collector and Exposed Piping Anti-Freeze Solution

Keep your solar collectors and exposed pipes from freezing with the Kodiak solar freeze protection valve.

This Kodiak product contains a thermal actuator that opens the valve when the temperature approaches freezing and re-closes it upon warm up. This is a continuous process of modulation; cold water is discharged and replaced by warmer water preventing panel and piping freeze up.

Our valve has a patented feature which prevents the seizing of the thermal actuator; a common problem among other freeze protection valves offered by our competition.



Part#: KC4500-00-00 (35F Discharge) Part#: KC4505-00-00 (35F Discharge)
Part#: KC4500-01-00 (45F Discharge) Part#: KC4505-01-00 (45F Discharge)

Product Features

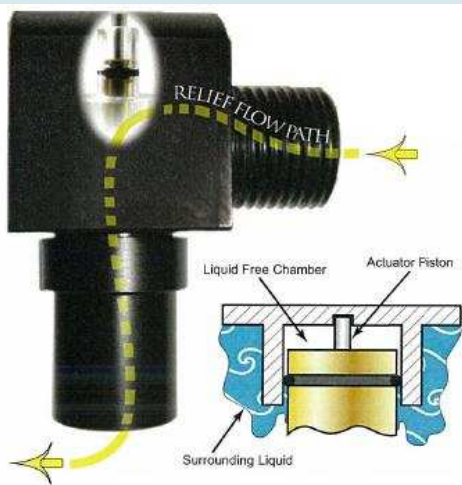
- Discharge Temperature set to 35F and 45F
- Internal Filter Screen
- UV Stabilized body material
- FDA and NSF listed materials
- 100 psi maximum operating pressure
- Complete mechanical operation
- Small size for easy install
- Tamper resistant design
- Corrosion resistant materials
- Non-electric function
- Screen protected anti-insect discharge port
- Anti seize feature ensuring longevity and durability

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Solar Hot Water Freeze Protection Valve

Introducing the world's first and only non-electric freeze protection valve designed specifically for solar hot water systems that will not seize over time due to corrosion.

A patented liquid tight piston chamber inside of the valve prevents any liquid from coming into contact with the piston responsible for opening and closing the valve eliminating a common problem among our competitors.



Easily installed on all Solar Hot Water Systems

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- ◇ Internal Filter Screen
- ◇ UV Stabilized body material
- ◇ FDA and NSF listed materials
- ◇ 100 psi maximum operating pressure
- ◇ Complete mechanical operation
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Easily installed on all Solar Hot Water Systems

Protect Your Investment, And Eliminate the Risk of Freeze Damage

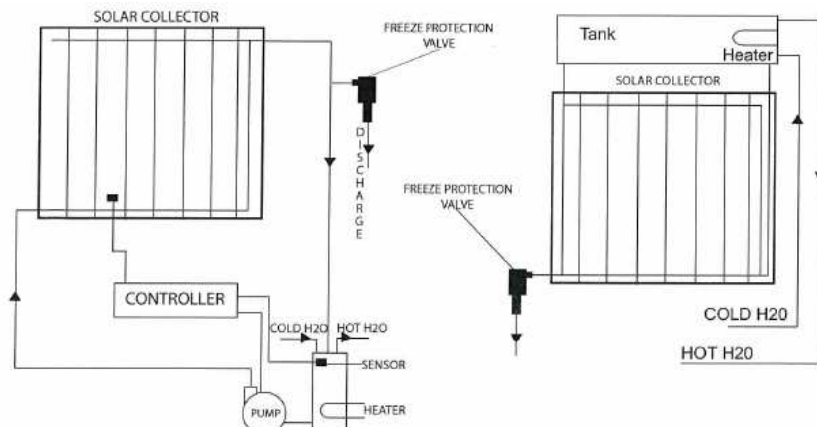
Installation Instructions

Operating and Installation Criteria

- Proper location of valve on solar system is crucial; fluid must pass through the collectors and piping before flowing through the valve.
- The valve must be installed in a location where it is exposed to the coldest ambient temperature; avoid any external heat sources such as vents and pumps. External heat sources will give the valve a false ambient temperature causing malfunction, and potential system freeze.
- Proper function of the valve requires system pressure of 10-100psi
- The valve must be installed on exit side of the system to prevent freezing of the collectors.
- Do not insulate the valve, or any surrounding piping that has flowing liquid.
- When tightening threads do not exceed 50 in/lbs or torque, any rate higher may result in damage to the valve's threads and/or entire systems
- It is mandatory use thread sealing material on the valve threads prior to installation to prevent potential leaking.

Instruction:

1. Ensure the valve ports are free of debris before proceeding with installation
2. Apply thread sealing material to valve threads.
3. Depressurize solar system, to prevent any potential scalding during installation.
4. Thread valve into system taking caution not to cross thread the valve, as this will permanently damage the valve.
5. Make sure not to over torque the valve during installation; do not exceed 50 in/lbs.
6. Pressurize solar system, evacuate any air within the system if necessary



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**KODIAK
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INCORPORATED**

Solar Hot Water Freeze Protection Valve

Solar Freeze Protection Valve

Technical Data

Freeze Protection Activation Temperatures

- 35F (1.66C)
- 45F (7.22C)

Ambient Temperature Rating

- 300F (148.88C) Max

Installation Torque

- 50 Ft-Lbs (67.84 Nm) Max

Pressure Rating

- 150 PSI (10.34 bar) Max

Materials

- Valve Body: Semi-Crystalline Thermoplastic (Delrin®)
- Thermal Actuator: Brass, Stainless Steel
- Rubber Parts: Nitrile

