


Instruction Manual

Antifreeze valve

	MODEL:BXFD20 ANTIFREEZE VALVE WITH FILTER
Max. working pressure:	10 bar
Ambient temperature range:	-30–90°C
Opening temperature:	4°C
Closing temperature:	8°C
Accuracy:	±2°C
Connections:	G3/4" or NPT3/4"
Body material:	Brass
Thread:	Male thread
Net weight	0.14 KGS
Gross weight	0.15 KGS

1.Function: The anti-freeze valve prevents ice build-up in pipe , avoiding possible damage to water storages and pipes in hydraulic, solar and irrigation systems. When below 8°C water tempraturer operating is reached, it automatically opens so that a minimum quantity of water may flow toward the drain, enabling a small continuous inflow of water; this prevents water from freezing inside the pipe. When the water temperature increases to above 8°C or in the event of contact with warmer water, the opposite action occurs, causing the device to shut off .

2.Materials

Body: Brass

3.Performance

Max. working pressure: 10 bar

Ambient temperature range: -30–90°C

Opening temperature: 4°C

Closing temperature: 8°C

Accuracy: $\pm 2^\circ\text{C}$

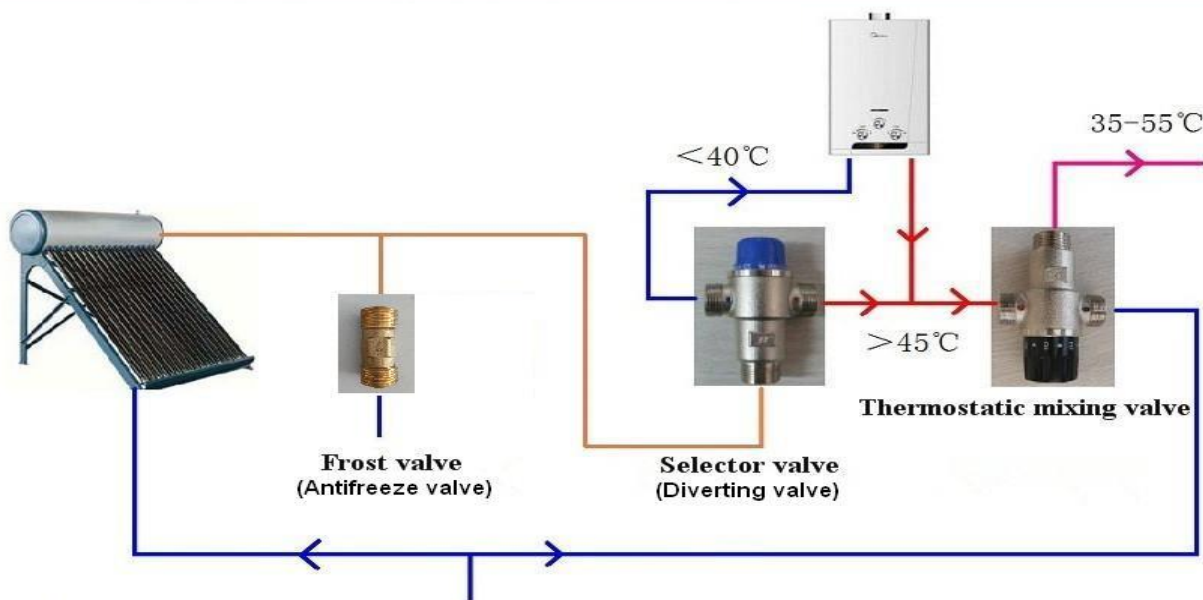
Connections: 3/4" , one inlet – male thread , one outlet – male thread

4. Operating principle

A thermostatic sensor sensing the water temperature to control the valves closing or opening .When the water temperature below 8°C. This causes the sensor to move and open a tiny passage so that water can drain out, this prevents water from freezing inside the pipe. When the temperature below 4 °C, the valve opened completely. The water will be flow out from the solar panel . When the temperature above 8°C, the valve will be closed.

5. Installation

Before installing the device, make sure that the system has been flushed and cleaned to remove any traces of dirt that may have accumulated during installation. The antifreeze valve outlet port must vertical to ground, so as to permit a free and unrestricted downward flow of the water as it drains out. The device must be installed in the points of the circuit at risk of freezing so that the water may flow freely and in order to prevent pipes, storages or components located upstream of the device from freezing. Pipes downstream of the device must be protected from frost if, due to the intervention of the device, the water contained in them remains stagnant without flowing. In the case of exposed outdoor pipes, the installation of a suitable heating cable will provide effective protection.



Antifreeze valve :

When the water temp below 4 degree, it will open completely ;

When the water temp below 8 degree, it will open;

When the water temp above 8 degree, it will close.

Diverting valve :

When the water temp above 45 degree, the water flow out from hot outlet ;

When the water temp below 40 degree, the water flow out from cold outlet ;

When the water temp between 40-45 degree, the water flow out from both outlet .

Thermostatic mixing valve : Temp. range is 35-55 degree