CALEFFI

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38478.01

Flow check valve

510 Series

Installation, commissioning and servicing instructions

Function

The function of the check-valve is to prevent natural water circulation in systems where the temperature is controlled by a room thermostat switching the pump.
Natural water circulation often results in the room temperature climbing higher than that preset by the thermostat, when a check valve is not installed.
The function of the check valve is to prevent thermal-syphoning of the water to radiators. It effectively separates the boiler from the system, opening only when the pump is running.

Technical Characteristics

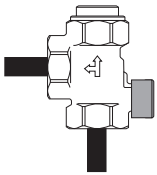
Connections:		3/4" NPT female
Material:	body	brass
	seals	EPDM
	spring	stainless steel
Maximum working pressure:		150 psi (10 bar)
Maximum temperature:		240°F (115°C)
Opening pressure:		0.3 psi (0.02 bar)
Medium:		water, glycol solutions
Max percentage of glycol:		50%

SAFETY INSTRUCTION

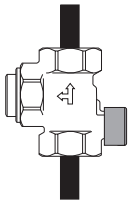
This safety alert symbol will be used in this manual to draw attention to safety related instructions. When used, the safety alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.**

CAUTION: All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of systems in accordance with all applicable codes and ordinances.

Installation



Horizontal Pipe



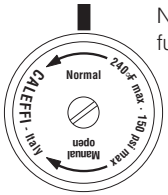
Vertical Pipe

Operation

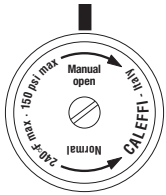
The Flow Check valve opens automatically when the circulator starts running. Flow Check valves are used in forced hot water heating system to prevent gravity circulation during periods when the boiler is hot but the space heating zone is not required.

Knob Positions

The valves are provided with a knob which can be manually operated. The knob can be turned counter clockwise to the “normal position” and clockwise to “manual open position”. Make sure that the knob is returned to the “normal position” during normal system operation.



Normal functioning



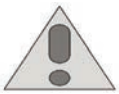
Manual opening

Service Instructions

There is no service required for the flow control valve.

CAUTION: If the valve is not installed, commissioned and maintained properly, according to the instructions contained in this manual, it may not operate correctly and may endanger the user.

CAUTION: When making the water connections, make sure that the valve connecting pipework is not mechanically over-stressed. Over time this could cause breakages, with consequent water losses which, in turn, could cause harm to property and/or people.



CAUTION: Water temperatures higher than 100°F (38°C) can be dangerous. During the installation, commissioning and maintenance of the valve, take the necessary precautions to ensure that such temperatures do not endanger people.

Leave this manual for the user.

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