

For Hot Water Boiler Pressure Protection Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Series LF474A OEM ASME Water Pressure Relief Valves

Sizes: 3/4"

For Hot Water Boiler Pressure Protection

Bronze body safety relief valves for pressure protection only of all types of hot water heating boiler equipment. LF474A is factory set at 125PSI (8.61 bar) and LFM474A is factory set at 150PSI (10.34 bar) with a high rating of 1,700,000 Btu/Hr. available with male or female inlet with female outlet.

No. LF474A – 3/4" female inlet connection.

No. LFM474A – 3/4" male inlet connection.

Features

- Seat elevated above outlet
- Non-mechanical seat-to-disc alignment
- Water seal of high temperature resisting material isolates spring working parts from water during relief

Specifications

Boiler Relief Valves

Each hot water space heating boiler shall be equipped with a pressure relief valve set to relieve below the maximum boiler working pressure. The device shall be certified in accordance with the A.S.M.E. low pressure heating boiler code, Section IV. The BTU rating of the valve must be in excess of the BTU output heating of the boiler. Watts LF474A, or LFM474A.

Operation

A hot water heating boiler operates normally full of water and steams only when there is trouble with the firing controls. When this occurs, it is a good "safety" procedure to reduce the energy stored in the boiler by lowering the heat content of the boiler as rapidly as practicable.

Water Discharge

As thermal expansion conditions develop, pressures may be built up to the setting of the relief valve. In this phase of operation, it acts as a water relief valve, discharging the small quantity of water which is expanded in the system.

Steam Discharge

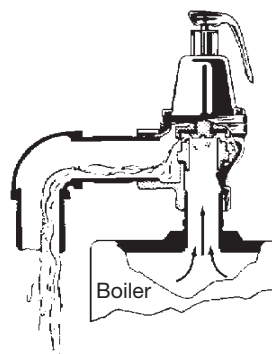
Should operating controls fail, permitting runaway firing, the boiler water may reach steam-forming temperatures, creating a steam pressure condition. Acting as a steam safety valve, it discharges steam at the rate or faster than the boiler can generate it, thus restoring system pressure to a safer level.



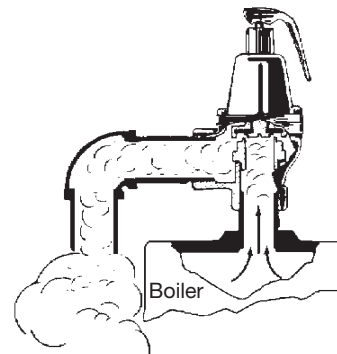
No. LF474A



No. LFM474A



Water Discharge



Steam Discharge

⚠ WARNING

A relief valve functions, in an emergency, by discharging water. Therefore, it is essential that a discharge line be piped from the valve in order to carry the overflow to a safe place of disposal. The drain pipe must be the same size as the valve outlet, and must pitch downward from the valve.

Valve lever must be tripped at least once a year to insure that waterways are clear. This device is designed for emergency safety relief and shall not be used as an operating control.

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

Materials

- Bronze Body construction
- Non-metallic disc-to-metal seating

Pressure – Temperature

Pressure Rating: LF474A - 125PSI (8.61 bar)
LFM474A - 150PSI (10.34 bar) with
corresponding high rating 1,700,000 BTU/Hr.

Maximum Temperature: 250°F (121°C)

Maximum System Operating Pressure: 75% of the valve
set pressure

Standards



Tested and rated by ASME National Board of Boiler and Pressure Vessel Inspectors. Meets Military Spec. MIL-V-18634A, Type I, Class 3A.

Dimensions — Weight

NO.	SIZE	HEIGHT		LENGTH		WEIGHT	
	<i>in.</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>lbs.</i>	<i>kg.</i>
LF474A	¾ x ¾	4⅝	118	2⅝	67	1.1	.51
LFM474A	¾ x ¾	5¾	146	2⅝	67	1.2	.57

Capacity

NO.	SET PRESSURE		SIZE	
	<i>PSI</i>	<i>bar</i>	<i>in.</i>	<i>mm</i>
LF474A	125	8.61	¾ x ¾	20 x 20
LFM474A	150	1-.34	¾ x ¾	20 x 20

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

