

For Hot Water Boiler Pressure Protection Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series 474A OEM ASME Water Pressure Relief Valves

Sizes: 3/4" (20mm)

For Hot Water Boiler Pressure Protection

Bronze body safety relief valves for pressure protection only of all types of hot water heating boiler equipment. Factory set at 125 psi (8.8 bar) with a high rating of 1, 700,000 Btu/Hr. available with male or female inlet with female outlet.

No. 474A – 3/4" female inlet connection

No. M474A – 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 Regulator Company No. 474A, M474A.

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

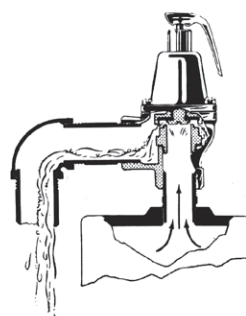
Should operating controls fail, permitting runaway firing, the boiler water may reach steam-forming temperatures, creating a steam pressure condition. Acting as a **steam safety valve**, it discharges **steam** at the rate or faster than the boiler can generate it, thus restoring system pressure to a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



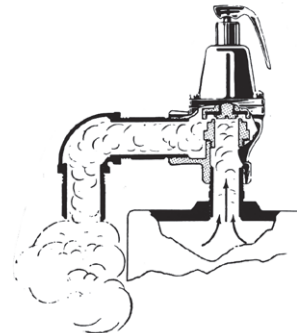
No. 474A



No. M474A



Water Discharge



Steam Discharge

NOTICE

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 drainpipe 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 in-sure that waterways are clear. This device is designed for emergency safety relief and shall not be used as an operating control.

Materials

Series 474A and M474A

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

Pressure – Temperature

Series 474A and M474A

Pressure Range: 125psi (8.61 bar)

Maximum Temperature: 250° F (121° C)

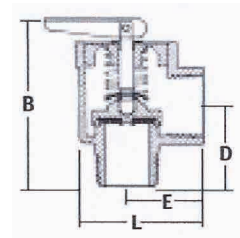
Dimensions – Weights

MODEL	SIZE (DN)		Model	HEIGHT		LENGTH		WEIGHT	
	in.	mm		in.	mm	in.	mm	lbs.	kgs.
474A	3/4 x 3/4	20 x 20	M2	4 5/8	118	2 5/8	67	1.1	.51
M474A	3/4 x 3/4	20 x 20	M2	5 3/4	146	2 5/8	67	1.2	.57

Other OEM ASME Rated Relief Valves

Series 315 and 415 – Steam Safety Valves

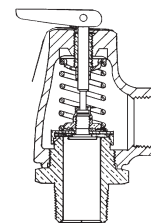
MODEL	SIZE (DN)	ASME STEAM DISCHARGE CAPACITY	DIMENSIONS								WEIGHT	
			B		D		E		L		lbs.	kgs.
	in.	lbs./hr. (set psi)	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
315-M2	3/4 x 3/4	375	2 11/16	69	1 3/8	35	1 1/4	31	3/4	19	.55	.2
415-M1	3/4 x 3/4	450	2 13/16	71	1 5/16	34	1 1/4	31	13/16	20	.70	.3
415-M1	1 x 1	643	3 1/8	80	1 11/16	43	1 5/8	41	13/16	20	.91	.4



NO. 315

No. 374A and M374A – Hot Water Boiler Safety Valves

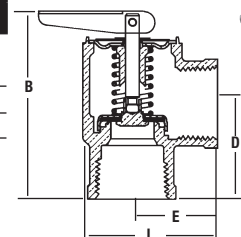
MODEL	SIZE (DN)		CONNECTIONS		BTU/HR. STEAM CHARGE CAPACITY				HEIGHT		WIDTH		WEIGHT	
	in.	mm	Inlet	Outlet	30psi 2.1 bar	40psi 2.8 bar	45psi 3.1 bar	50psi 3.4 bar	in.	mm	in.	mm	lbs.	kg
374A	3/4	20	Female	Female	550,000	671,000	734,000	797,000	3 5/8	92	2 1/2	64	1.1	0.51
M374A	3/4	20	Male	Female	550,000	671,000	734,000	797,000	4 1/4	107	2 1/2	64	1.1	0.51



NO. 374A

Series 335 and M335 – Hot Water Boiler Safety Relief Valves

MODEL	SIZE (DN)		CONNECTIONS		STANDARD SETTING		DIMENSIONS						WEIGHT			
	in.	mm	Inlet	Outlet	psi	bar	B		D		E		L		lbs.	kgs.
	in.	mm					in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
335-M2	3/4	20	Female	Female	30	2.11	2 3/4	70	1 1/4	32	1 1/4	31	2	50	.63	.3
335-M2	3/4	20	Male	Female	30	2.11	2 15/16	75	1 7/16	37	1 1/4	31	2	50	.63	.3



NO. 335

Capacity

Model M2

Size – 3/4" x 3/4" (20 x 20 mm)

Set Pressure – 125psi (861 bar)

Approvals



Tested and rated by ASME National Board of Boiler and Pressure Vessel Inspectors. Meets Military Spec. MIL-V-18634A, Type 1, Class 3A.



A Watts Water Technologies Company



USA: Tel: (978) 688-1811 • Fax: (978) 794-1848 • www.watts.com
Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • www.watts.ca