

For Commercial Water Heater Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Series LF40, LF140, LFN240, and LF340 Automatic Re-seating T&P Relief Valves

The combined 2-in-1 Temperature & Pressure Relief Valve provides the least expensive and proven means for protection against both excessive temperature and pressure emergency conditions.

Fully automatic temperature and pressure relief protection for domestic hot water supply tanks and heaters based on the latest ANSI Z21.22 Listing requirements for temperature discharge capacity. The LF40, LF140, LFN240, and LF340 feature Lead Free* construction to comply with Lead Free* installation requirements.

LF40XL with test lever and extension thermostat for installation in hot water outlet within the allowable distance from the top of the tank based on latest ANSI Z21.22. Sizes ¾" and 1" (20 – 25mm).

LF40L with test lever and short thermostat for installation directly in available tank tapings. Sizes ¾" and 1" (20 – 25mm).

Series LF140, LFN240 and LF340 have the same basic body construction and advanced design features as the Series LF40 except for discharge capacity and size of inlet and outlet connections. For complete specifications (including specifications for the Series LF40) see other side. Sizes 1", 1¼", 1½" and 2" (25, 32, 40 and 50mm).

Features

- Lead Free cast body
- Non-mechanical seat-to-disc alignment
- Tamper-resistant bonnet screws
- Series ¾" LF40, LF140 and 1" LF40 feature a unique thermostat with a special thermo-bonded coating
- Series 1" LF140 are furnished with stainless steel thermostat tube
- Series LFN240, LF340 and LF342 are furnished with stainless steel thermostat tube

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



Specifications

Temperature & Pressure Relief Valves

Each hot water storage heater shall be equipped with an automatic temperature and pressure relief valve to protect the heater from excessive pressure and excessive temperature. The device shall be certified as meeting the requirements of ASME low pressure heating boiler code and ANSI Z21.22. The BTU discharge capacity of the device shall be in excess of the BTU input rating of the heater. The device shall be constructed using Lead Free* materials. Lead Free* automatic re-seating T&P relief valves shall comply with state codes and standards, where applicable, requiring reduced lead content. The T&P valve shall be a Watts Series LF40, LF140, LFN240 or LF340.

Following installation, the valve lever MUST be operated AT LEAST ONCE A YEAR by the water heater owner to ensure that the waterways are clear. Certain naturally occurring mineral deposits may adhere to the valve, blocking waterways, rendering it inoperative. When the lever is operated, Hot water will discharge if the waterways are clear. Precautions must be taken to avoid personal injury from contact with hot water and to avoid property damage.

NOTICE

Inquire with governing authorities for local installation requirements

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.



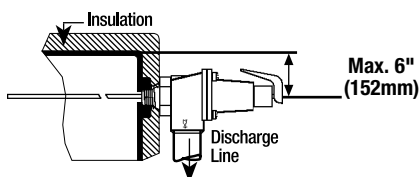
Direct Side Tapping

FOR EXTERNAL FLUE HEATERS

Use extra length extension thermostat to extend into water storage tank.

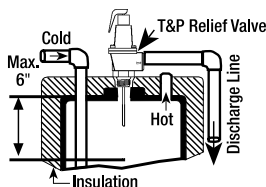
FOR INTERNAL FLUE HEATERS

Use short or standard length thermostat. Vertical discharge line must be installed with its direction downward.



For Heaters with Direct Top Tapping

Use standard or extra length extension thermostat.



Standards



ASME Rated, ANSI Z21.22, Design certified and listed by CSA, National Board of B&PVI to Section IV of the ASME B&PV code and meet current FHA requirements and ANSI Z21.22 in addition to Military Spec. MIL-V-136-12D, Type I.

Pressure – Temperature

Temperature relief 210°F (99°C)

Pressure range 75 – 150psi (5.2 – 10.3 bar)

Standard setting 75, 100, 125 and 150psi (5.2, 6.9, 8.6 and 10.3 bar)

General Recommendations†

For gas, electric or oil-fired storage water heaters between 180,000 to 205,000 BTU/Hr. rating: **Use ¾" (20mm) Series LF40, LF140 tested under ANSI Z21.22 with ratings as certified and listed by CSA.**

For gas or oil-fired storage water heaters between 205,000 and 730,000 BTU/Hr. rating and for compliance with applicable water heater labeling requirements: **Use 1" (25mm) LF40, LF140, LFN240 Series tested under ANSI Z21.22 with ratings as certified and listed by CSA.**

For installations of gas or oil-fired hot water supply boilers over 730,000 BTU/Hr. output heating domestic water and for steam coil storage water heaters: **Use Series LF340, LF342 tested under ANSI Z21.22 with ratings as certified and listed by CSA.**

Model	Inlet X Outlet (in.)	Thermostat Length (in.) (Below Inlet thread)	Dimensions (in.)		Weight lbs.	CSA Temp. Steam Rating BTU/Hr	**ASME PRESSURE STEAM RATING BTU/Hr			
			Height (Less Thermostat)	Width			@75psi set pres.	@100psi set pres.	@125psi set pres.	@150psi set pres.
LF40L-3	¾ M x ¾ F	3	5½	2½	1¾	180,000	778,000	998,000	1,218,000	1,438,000
LF40XL-5	¾ M x ¾ F	5	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000
LF40XL-8	¾ M x ¾ F	8	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000
LF140S-3	¾ F x ¾ F	3	5½	2½	1¾	180,000	778,000	998,000	1,218,000	1,438,000
LF140X-5	¾ F x ¾ F	5	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000
LF140X-8	¾ F x ¾ F	8	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000
LF40L-2	1M x 1F	2	6¼	2¾	2¼	450,000	1,155,000	1,481,000	1,808,000	2,135,000
LF40XL-4	1M x 1F	4	6¼	2¾	2¼	500,000	1,155,000	1,481,000	1,808,000	2,135,000
LF40XL-7	1M x 1F	7	6¼	2¾	2¼	500,000	1,155,000	1,481,000	1,808,000	2,135,000
*LF140S-3	1F x 1F	3	5¾	3	2¼	570,000	1,670,000	2,140,000	2,610,000	3,085,000
*LF140X-6	1F x 1F	6	5¾	3	2¼	670,000	1,670,000	2,140,000	2,610,000	3,085,000
*LF140X-9	1F x 1F	9	5¾	3	2¼	670,000	1,670,000	2,140,000	2,610,000	3,085,000
*LFN240X-6	1F x 1F	6	6¼	3¼	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000
*LFN240X-9	1F x 1F	9	6¼	3¼	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000
*LFN241X-5	1¼ M x 1F	5	7¾	3¼	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000
*LFN241X-8	1¼ M x 1F	8	7¾	3¼	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000
*LF340-3	1½ F x 1½ F	3	9¾	4½	7	1,150,000	3,450,000	4,426,000	5,403,000	6,379,000
*LF340X-8	1½ F x 1½ F	8	9¾	4½	8	1,150,000	3,450,000	4,426,000	5,403,000	6,379,000
*LF342-3	2 M x 1½ F	3	9¾	4½	7	1,150,000	3,450,000	4,426,000	5,403,000	6,379,000
*LF342X-8	2 M x 1½ F	8	9¾	4½	8	1,150,000	3,450,000	4,426,000	5,403,000	6,379,000

*Furnished with stainless steel thermostat tube.

M = Male

F = Female

**ASME capacities are steam pressure ratings and do not reflect the CSA temperature relieving capacity of the valves for selection purposes.

†LFLL40XL and LFLLL40XL valves with extended inlet shanks should be used for water heaters that have extra thick insulation, Ask for ES-LFLL/LLL40XL.

Temperature and Pressure Relief Valves should be inspected AT LEAST ONCE EVERY TWO TO FOUR YEARS, and replaced, if necessary, by a licensed plumbing contractor or qualified service technician, to ensure that the product has not been affected by corrosive water conditions and to ensure that the valve and discharge line have not been altered or tampered with illegally. Certain naturally occurring conditions may corrode the valve or its components over time, rendering the valve inoperative. Such conditions can only be detected if the valve and its components are physically removed and inspected. Do not attempt to conduct an inspection on your own. Contact your plumbing contractor for a reinspection to ensure continuing safety.



A Watts Water Technologies Company

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