

## For Commercial Water Heater Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## Series LFLL40 and LFLLL40

### Extended Inlet Shank Automatic Re-seating T&P Relief Valves

Sizes:  $\frac{3}{4}$ " and 1"

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.

Full automatic temperature and pressure relief protection for commercial hot water supply tanks and heaters based on the latest ANSI Z21.22 listing requirements for temperature discharge capacity.

LFLL40XL and LFLLL40XL with test lever and extended inlet shank for use with the new generation of water heaters with extra thick insulation. These valves eliminate the use of an extension nipple required with standard shank length models.

Watts self-closing combination T&P relief valves are design certified and listed by CSA and NB.

#### Features

- Lead Free\* cast copper silicon alloy
- Non-mechanical seat-to-disc alignment
- Thermostat is accurate and proven. Exclusively designed and manufactured by Watts
- Tamper-resistant bonnet screws
- Unique thermostat with a special thermo-bonded coating

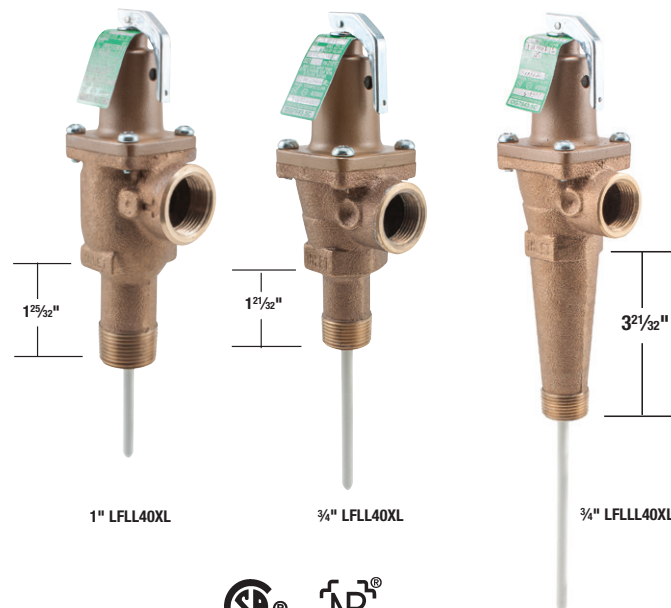
#### Specifications

##### 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\* cast copper silicon alloy material. Lead Free\* automatic re-setting T&P relief valve shall comply with states codes and standards, where applicable requiring reduced lead content. Valve shall be a Watts Series LF40.

#### 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.



#### Standards



ASME rated, ANSI Z21.22. Design certified and listed by CSA. Meets current FHA and ANSI Z21.22 requirements in addition to Military Spec. MIL-V 136-12D, Type I.

#### Pressure - Temperature

Temperature relief 210°F (98.9°C). Pressure range 75-150psi (5.17-10.34 bar). Standard setting 75, 100, 125 or 150psi (5.17, 6.9, 8.61 and 10.34 bar).

#### WARNING

**Following installation, the valve lever MUST be operated AT LEAST ONCE A YEAR to ensure that the water-ways are clear.** Certain naturally occurring mineral deposits may adhere to the valve, rendering it inoperative. When manually operating the lever, water will discharge and precautions must be taken to avoid contact with hot water and to avoid water damage. **BEFORE operating lever**, check to see that a discharge line is connected to this valve directing the flow of hot water from the valve to a proper place of disposal otherwise personal injury may result. If no water flows, valve is inoperative. **TURN OFF THE WATER HEATER AND CALL A PLUMBER IMMEDIATELY.**

#### NOTICE

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.

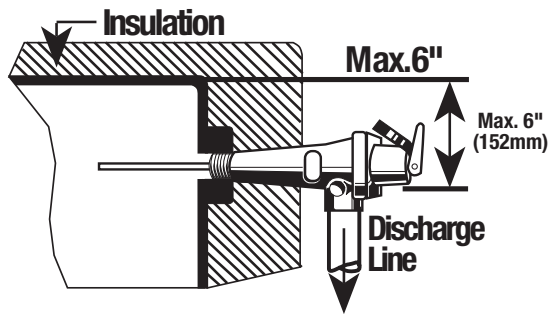
## Direct Side Tapping

### For External Flue Heaters

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

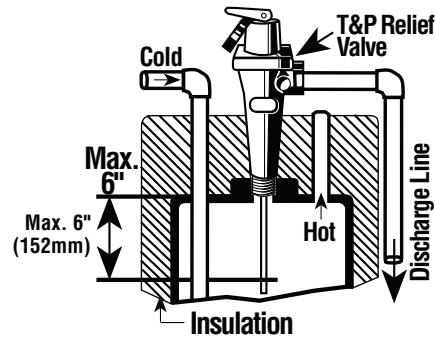
### For Internal Flue Heaters

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.



## General Recommendations

For gas, electric or oil-fired storage water heaters between 180,000 to 205,000 BTU/Hr. rating: Use 3/4" (20mm) Series 40 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 500,000 BTU/Hr. rating and for compliance with applicable water heater labeling requirements: Use 1" (25mm) 40 Series tested under ANSI Z21.22 with ratings as certified and listed by CSA.

For the full range of high capacity temperature and pressure relief valves Series LF40, LF140, LF240, LF340 and LF342. See ES-LF40, LF140, LF240, LF340.

MODEL	INLET X OUTLET	THERM LENGTH	HEIGHT	WIDTH	WEIGHT	CSA TEMP STEAM RATING	ASME @75	ASME @100	ASME @125	ASME @150
LFLL40XL	3/4M x 3/4F	3.5	6.66	2.64	1½	205,000	778,000	998,000	1,218,000	1,438,000
LFLL40XL	3/4M x 3/4F	5	8.66	2.64	2	205,000	778,000	998,000	1,218,000	1,438,000
LFLL40XL	1M x 1F	3	7.71	2.81	2	500,000	1,155,000	1,481,000	1,808,000	2,135,000

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.

## ⚠ WARNING

**REINSPECTION OF T&P RELIEF VALVE: Temperature and Pressure Relief Valves should be reinspected AT LEAST ONCE EVERY TWO TO FOUR YEARS** by a licensed plumbing contractor or authorized inspection agency, to insure that the product has not been affected by corrosive water conditions and to insure 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 are not detectable unless the valve and its components are physically removed and inspected. Do not attempt to conduct this inspection on your own. Contact your plumbing contractor for a reinspection to assure continuing safety. **FAILURE TO REINSPECT THIS VALVE AS DIRECTED COULD RESULT IN UNSAFE TEMPERATURE OR PRESSURE BUILD-UP WHICH CAN RESULT IN SERIOUS INJURY OR DEATH AND/OR SEVERE PROPERTY DAMAGE.**

## 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 discharge line must be the same size as the valve outlet and must pitch downward from the valve and terminate at least 6" (152mm) above the floor drain where any discharge will be clearly visible. For 100DT discharge line consult your Watts agent.

