

## For Commercial Water Heater Applications

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series 40, 140, 240 & 340 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.

40XL 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".

40L with test lever and short thermostat for installation directly in available tank tappings. Sizes ¾" and 1".

Series 140, N240 and 340 have the same basic body construction and advanced design features as the Series 40 and are identical to the Series 40 except for discharge capacity and size of inlet and outlet connections. For complete specifications (including specifications for the Series 40) see other side. Sizes 1", 1¼", 1½" and 2".

### Features

- Bronze body construction
- Non-mechanical seat-to-disc alignment
- Thermostat is accurate and proven. Exclusively designed and manufactured by Watts
- Tamper-resistant bonnet screws
- Series 40 and 140 feature a unique thermostat with a special thermo-bonded coating
- Series 140 sizes 1" and above are standardly furnished with stainless steel thermostat tube
- Series N240, 340 and 342 are furnished with stainless steel thermostat

### 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 T&P valve shall be a Watts Series 40, 140, 240 or 340.

### 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.



Series 40L and 40XL

Series 140XL

Series N240X

Series 340

### 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)

#### ⚠ 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.**

This device is designed for emergency safety relief and shall not be used as an operating control.

#### 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.

#### 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.



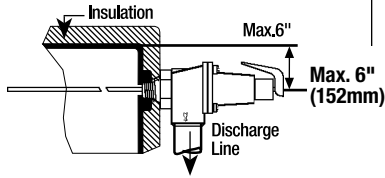
## Direct Side Tapping

### For External Flue Heaters

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

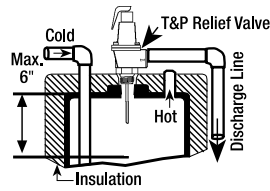
### For Internal Flue Heaters

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.



## General Recommendations†

For gas, electric or oil-fired storage water heaters between 180,000 to 205,000 BTU/Hr. rating: **Use ¾" Series 40, 140 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" 40, 140, N240 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 340, 342 tested under ANSI Z21.22 with rating as certified and listed by CSA.**

SPECIAL MODEL: No. 340X-8 M4Z 1½" size only. Pressure setting 175psi (5.2 bar). Temp. 210°F (99°C). Certified by CSA only.

MODEL	INLET X OUTLET	THERMOSTAT LENGTH (BELOW INLET THREAD)	DIMENSIONS			WEIGHT	CSA TEMP. STEAM	**ASME PRESSURE STEAM RATING BTU/HR			
			HEIGHT (LESS THERMOSTAT)	WIDTH				Rating BTU/HR	@75psi set pres.	@100psi set pres.	@125psi set pres.
	<i>in.</i>	<i>in.</i>	<i>in.</i>	<i>in.</i>	<i>lbs.</i>						
40L-3	¾ M x ¾ F	3	5½	2½	1¾	180,000	778,000	998,000	1,218,000	1,438,000	
40XL-5	¾ M x ¾ F	5	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000	
40XL-8	¾ M x ¾ F	8	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000	
140S-3	¾ F x ¾ F	3	5½	2½	1¾	180,000	778,000	998,000	1,218,000	1,438,000	
140X-5	¾ F x ¾ F	5	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000	
140X-8	¾ F x ¾ F	8	5½	2½	1¾	205,000	778,000	998,000	1,218,000	1,438,000	
40L-2	1M x 1F	2	6¼	2¾	2¼	450,000	1,155,000	1,481,000	1,808,000	2,135,000	
40XL-4	1M x 1F	4	6¼	2¾	2¼	500,000	1,155,000	1,481,000	1,808,000	2,135,000	
40XL-7	1M x 1F	7	6¼	2¾	2¼	500,000	1,155,000	1,481,000	1,808,000	2,135,000	
*140S-3	1F x 1F	3	5¾	3	2¼	570,000	1,670,000	2,140,000	2,610,000	3,085,000	
*140X-6	1F x 1F	6	5¾	3	2¼	670,000	1,670,000	2,140,000	2,610,000	3,085,000	
*140X-9	1F x 1F	9	5¾	3	2¼	670,000	1,670,000	2,140,000	2,610,000	3,085,000	
*N240X-6	1F x 1F	6	6¼	3¾	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000	
*N240X-9	1F x 1F	9	6¼	3¾	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000	
*N241X-5	1¼ M x 1F	5	7¾	3¼	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000	
*N241X-8	1¼ M x 1F	8	7¾	3¼	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000	
*340-3	1½ F x 1½ F	3	9¾	4½	7	1,150,000	3,450,000	4,426,000	5,403,000	6,379,000	
*340X-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	
*342-3	2 M x 1½ F	3	9¾	4½	7	1,150,000	3,450,000	4,426,000	5,403,000	6,379,000	
*342X-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	

\*Standardly 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.

†LL40XL and LLL40XL valves with extended inlet shanks should be used for water heaters that have extra thick insulation, Ask for ES-LL/LLL-40XL.

## WARNING

**REINSPECTION OF T&P RELIEF VALVE: Temperature and Pressure Relief Valves should be reinspected AT LEAST ONCE EVERY THREE 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.



USA: T: (978) 689-6066 • F: (978) 975-8350 • Watts.com

Canada: T: (905) 332-4090 • F: (905) 332-7068 • Watts.com

Latin America: T: (52) 81-1001-8600 • Watts.com