

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series 40, 140, 240, 340

Automatic Reseating T&P Relief Valves

⚠ WARNING

FOLLOWING INSTALLATION, THE VALVE LEVER MUST BE OPERATED AT LEAST ONCE A YEAR TO ENSURE THAT THE WATERWAYS ARE CLEAR. Certain naturally occurring mineral deposits may adhere to the valve, rendering it inoperative. When manually operating the lever, water discharges 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, the 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.

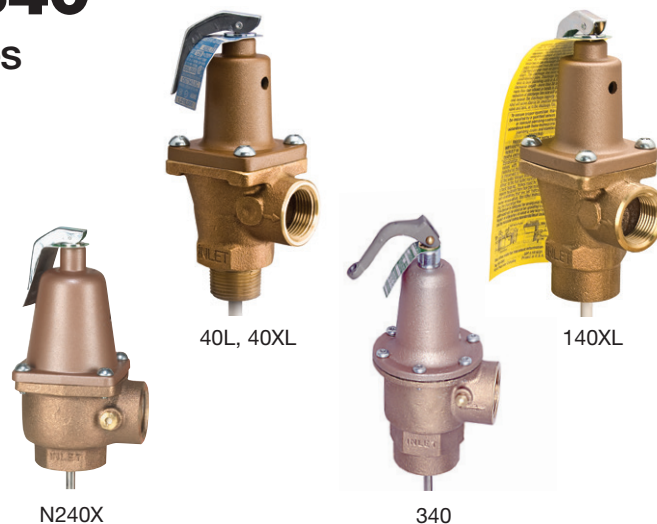
⚠ WARNING

REINSPECTION OF T&P RELIEF VALVE: TEMPERATURE AND PRESSURE RELIEF VALVES SHOULD BE REINSPECTED AT LEAST ONCE EVERY 2 TO 4 YEARS by a licensed plumbing contractor or authorized inspection agency, to ensure that the product has not been affected by corrosive water conditions and 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.

The combined 2-in-1 Temperature & Pressure Relief Valves provide a means for protection against both excessive temperature and pressure emergency conditions. The valves are fully automatic and reseat independently after relieving.

Inlet connections come in male or female NPTF depending on the model.

Thermostat tubes are offered in multiple lengths to allow required water contact and have thermo-bonded coating or stainless steel construction, depending on the valves BTU/hr ratings.



Features

- Bronze body construction
- Nonmechanical seat-to-disc alignment
- Tamper-resistant bonnet screws
- Higher relieving capacity for larger residential and commercial applications
- Available in diameters from ¾" to 2"
- Optional SentryPlus Alert® discharge line flood sensor which when paired with a connection kit (sold separately) can detect excessive water discharges from the relief valve (Refer to ES-FS-ReliefValve.)

NOTICE

A relief valve functions in an emergency by discharging water. Therefore, a discharge line MUST be piped from the valve 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" above the floor drain where any discharge can be clearly seen. (For more information on Series 100DT drain tubes, download ES-100DT.)

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.

Inquire with governing authorities for local installation requirements.

Specification

Each hot water storage heater shall be equipped with an automatic temperature and pressure relief valve to protect the heater from excessive pressure and 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 and shall include a sensor for flood detection. (Sensor activated by add-on connection kit, sold separately.)

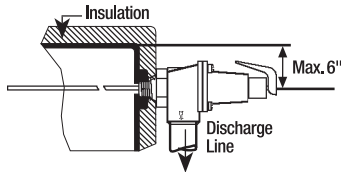
Direct Side Tapping

For External Flue Heaters

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

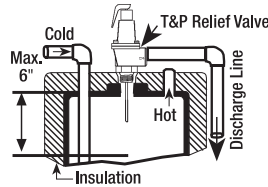
For Internal Flue Heaters

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



For Heaters with Direct Top Tapping

Use a standard or an extra length extension thermostat.



Certifications and Listings

CSA certified and listed to ANSI Z21.22/CSA 4.4



NBBI certified to ASME BPVC Section XIII as an HV designated valve

Pressure – Temperature

Temperature Relief: 210°F (99°C)

Pressure Range: 75 – 150 psi (5.2 – 10.3 bar)

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

General Recommendations

For gas, electric, or oil-fired storage water heaters between 180,000 and 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" SERIES 40, 140, N240 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 175 psi (5.2 bar). Temp. 210°F (99°C). Certified by CSA only.

MODEL	INLET X OUTLET <i>in.</i>	THERMOSTAT		DIMENSIONS			CSA TEMP. STEAM Rating BTU/hr	ASME PRESSURE STEAM RATING BTU/HR			
		LENGTH (BELOW INLET THREAD) <i>in.</i>	HEIGHT (LESS THERMOSTAT) <i>in.</i>	WIDTH <i>in.</i>	WEIGHT <i>lb</i>	@75psi set pres.		@100psi set pres.	@125psi set pres.	@150psi set pres.	
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*	1½ M x 1F	5	7¾	3¼	2¾	730,000	2,195,000	2,817,000	3,438,000	4,059,000	
N241X-8*	1½ 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 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	

*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. For more information, download for ES-LL/LLL-40XL.



USA: T: (978) 689-6066 • Watts.com

Canada: T: (888) 208-8927 • Watts.ca

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