

TYPICAL SPECIFICATIONS

Pressure independent control valves

½" (DN15) – 1¼" (DN32)

1.0 **General** – Furnish and install, as shown on the drawings and/or schedules, Oventrop balancing valves to ensure the accurate balancing and control of all flows in the hydronic heating and cooling systems. Water balancing and control shall meet the specified flows.

2.0 Construction

2.1 All control valves shall be of the pressure independent design. All control valves shall have a constant control valve authority of 100% over the full allowable pressure and flow range. All control valves must offer a hand wheel mounted opposite and inline with the actuator. The actuator and hand wheel shall be oriented 15 degrees from vertical to allow for easier operation.

2.2 All control valves shall have documented measuring accuracy of +/- 10% within the normal setting range of the valve.

2.3 All control valves shall have integral self-sealing ports for measuring differential pressure and fluid temperature using standard pressure and temperature test probes. Test ports shall be located perpendicular to the hand wheel, on the same side of the valve and shall be replaceable with blind plugs if not needed. Test ports shall be spaced no more than 1.0 inch apart and extend no more than 1.5 inches from the valve body.

2.4 All control valves shall have maximum body ratings no less than 232 psi (PN16) at 250 degrees F (120 C).

2.5 All control valves must include a locking clip stop to ensure the balanced position while in operation and to prevent hand wheel repositioning after setting.

2.6 All control valves ½" (DN15) through 1¼" (DN32) shall have hand wheel adjustment for precise readout on the opposite side of the valve from the actuator. The hand wheel shall be adjustable while the valve is in operation with the actuator installed. The hand wheel shall be

marked in gallons per minute and shall have a minimum positioning accuracy of 0.1 GPM.

2.7 All control valves shall be manufactured by the company complying with international quality standard ISO 9001.

2.8 All control valves shall have a threaded connection of M30x1.5 for the actuator. All control valves shall have a stem travel of no less than 0.11 inches (2.8mm) over the full range of valve flow. All actuators shall be supplied by Oventrop. All actuators shall be capable of operating over the full flow and pressure range of the valve.

3.0 **Material Characteristics** – All control valves in sizes ½" (DN15) through 1¼" (DN32) shall have brass bodies and shall have NPT threaded connections to match the piping system. All wetted brass parts shall be alloyed to resist dezincification (DZR). No dielectric fittings shall be required for installation. The valve stem shall be stainless steel. The flexible components shall be made of EPDM and PTFE.

4.0 **Valve Sizing** – All control valves shall be sized to perform in a normal operation range at a minimum differential pressure of 2.2 to 6 psi (0.15 to 0.4 Bar). All control valves shall have a maximum working differential pressure of no less than 60 psi (4 Bar). All control valves shall be selected based on their allowable flow range.

5.0 **Manufacturer** – Oventrop Corporation.

6.0 **Warranty** – Valves shall be free from material and workmanship defects for a period of 5 years from date of installation or from 5 1/2 years from date of shipment, whichever comes first.

Oventrop reserves the right to make revisions to its products, their specifications, this bulletin, and related information without notice.

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