



Bray Commercial

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Section 23 09 00 – INSTRUMENTATION AND CONTROL FOR HVAC

23 09 13 Instrumentation and Control Devices for HVAC

13.33 CONTROL VALVES

A. Industrial and Segmented Ball Valve:

1. 2-Way NPS ½"-4" - Valve body shall be 3-piece construction of WCB carbon steel or CF8M stainless steel, as required by the application. Stainless Steel balls and stems with NPT threaded connections.
 - i. Characterized V Port and Full Port option.
 - ii. API 598 – Bubble Tight Leakage Rating
 - iii. 3-piece design for in-line servicing.
 - i. Flow Characteristics: Linear, Modified equal percentage, Equal percentage based on port.
 - ii. Close-Off Pressure Rating: 300 psi
 - iii. Media Temperature Range: Water = -20 to 500° F / Steam = 100 psi.
 - iv. Max Differential Pressure: Water = 80 psi / Steam = 50 psi.
2. 2-Way Segmented Ball Valve 2" – 12" – Valve body shall consist of WCB Carbon Steel or CF8M Stainless Steel, as required by application. Stainless Steel Balls and stems with ANSI Class 150 flanged connections.
 - iv. Characterized ball segment.
 - v. ANSI Class VI Leakage Rating
 - i. Flow Characteristics: Equal percentage.
 - ii. Close-Off Pressure Rating: Water = 280 psi / Saturated Steam = 100 psi.
 - iii. Media Temperature Range: Water = -20 to 380° F @ 200 psi / Saturated Steam = 100 psi.
 - iv. Max Pressure drop: Water/ Steam = 1/3 of inlet Pressure.
3. Actuator: Nema 2 or Nema 4 rated actuator based on working conditions:
 - i. Actuator shall have torque rating safety factor of minimum 1.25 valve torque.
 - ii. Actuator shall mount directly to valve body or have manufacturer provided mounting kit.
4. Manufactured by Bray or equal.