



Electronic Globe Valve Guide Specifications

Two and Three-Way Screwed Valves

Valves 1/2" through 2" shall be bronze body, NPT screw type, and shall be rated for ANSI Class 250 working pressure. The operating temperature range (of the controlled medium) shall be 20° to 250°F*. Valve stems shall be stainless steel. Valve plugs shall be brass for water service and brass or stainless steel for steam service, depending on temperature and pressure requirements. Stem packing shall be EPDM O-ring or Teflon/EPDM, depending on temperature. 1/2" through 2" two-way valves shall be rated for 25 PSI differential for water applications and 15 PSI inlet for steam applications. 1/2" through 2" three-way valves shall be rated for 25 PSI differential. Optional trim materials are available for higher temperature/pressure applications. Flow type for two-way valves shall be equal percentage or modified equal percentage for water or steam applications. Flow type for three-way valves shall be linear. All screwed valves shall meet ANSI class IV leakage standards (not to exceed 0.01% of Cv).

Two and Three-Way Flanged Valves

Valves 2-1/2" through 6" shall be cast iron or cast carbon steel body, flanged, and rated for ANSI Class 125 working pressure. The operating temperature range (of the controlled medium) shall be 20° to 250°F for water and/or low pressure steam applications (up to 15 PSI inlet pressure) with normal duty packing and up to 337°F maximum temperature with optional Teflon/EPDM V-ring packing for higher pressure steam and hot water. Valve stems shall be stainless steel. Valve plugs shall be brass or stainless steel. Stem packing shall be EPDM O-rings or optional Teflon/V-ring/EPDM O-ring. Two-way standard valves shall be rated for 25 PSI differential pressure for water applications and 15 PSI differential pressure for steam applications (50 PSI differential with optional stem packing and stainless steel trim). Three-way valves shall be rated for 25 PSI differential (optional trim for 50 PSI differential). Flow type for two-way valves shall be equal percentage or modified equal percentage for water applications. Flow type for three-way valves shall be modified equal percentage or linear. All flanged valves shall meet ANSI Class IV leakage standards (not to exceed 0.01% of Cv).

Actuators

The valve actuator shall be capable of providing the minimum torque required for proper valve close-off for the required application. Each actuator shall have current limiting or stall detection circuitry incorporated into its design to prevent damage to the actuator. A gear release or manual override crank shall be provided on the motor to allow for manual override. Applications that require fail-safe operation of the valve assembly shall use actuators with mechanical spring return or the addition of a centralized battery backup module at the control panel for ease of maintenance. Capacitor type backup or individual battery backup within the motor housing is not acceptable. The actuator shall be modulating, floating (tri-state), or two-position with or without spring return as called out in the control sequence of operation. All modulating valves shall have positive positioning and respond to a 0-10 VDC or a 0-20 mA (with a dropping resistor) control signal. These modulating units will each have position feedback signal corresponding to the actual valve position which can be wired back to the control system. An optional feedback potentiometer or auxiliary switch shall be available, if required, for floating or two position type actuators. The actuator shall be powered by a 24 VAC, 120 VAC or 24 VDC power source. Actuators shall be UL listed.

Metallic Linkages

All globe valve linkages must be high strength aluminum extrusions and have high strength adjustable tubular legs with self-aligning action. At 30 PSI inlet pressure or higher, the metallic linkage shall employ extra long legs to further isolate the actuator from heat. All linkages must have internal end-of-travel stops. All internal gear teeth and yokes shall be metallic. All linkages shall be linear so that the valve curve is not adversely affected. All actuators shall be mounted directly on the linkage drive shaft. Interface pieces are not acceptable.

General

The manufacturer shall warranty the control valve assembly for a period of 2 years from the date of installation, not to exceed 30 months from the original date of shipment.

Control valves shall be provided by (DEI) Dodge Engineering and Controls, Inc., Chelmsford, MA USA.

Note:

* For higher or lower temperature medium, contact DEI.