

GENERAL SPECIFICATIONS

Model 115-4 Solenoid Shut-off Valve – High-Capacity Type

1.1 General

The solenoid shut-off valve shall open and close via discrete electrical signals. The valve shall be equipped with a three-way solenoid valve, operating a three-way auxiliary pilot that will allow the valve to open when <energized, deenergized>. The solenoid shut-off valve shall be a <size> Model 115-4, <globe pattern, angle pattern>, with <150# flanged, 300# flanged, threaded, grooved> end connections, as manufactured by OCV Control Valves, Tulsa, Oklahoma, USA.

1.2 Design

The solenoid shut-off valve shall be a single-seated, line pressure operated, diaphragm actuated, pilot controlled globe valve. The valve shall seal by means of a corrosion-resistant seat and a resilient, rectangular seat disc. These, and other parts, shall be replaceable without removing the valve from the line. The stem of the main valve shall be guided top and bottom by integral bushings. Alignment of the body, bonnet and diaphragm assembly shall be by precision dowel pins. The diaphragm shall not be used as a seating surface, nor shall the pistons be used as an operating means. The pilot system shall be furnished complete and installed on the main valve. It shall include a needle valve, Y-strainer, solenoid valve, auxiliary pilot and isolation ball valves. The solenoid shut-off valve shall be operationally and hydrostatically tested prior to shipment.

1.3 Materials of Construction

The main valve body and bonnet shall be ductile iron per ASTM A536, Grade 65-45-12. End connections shall be <ANSI B16.42 Class 150# flange > <ANSI B16.42 Class 300# flange, > <ANSI B1.20.1 threaded > <grooved ends >. All ferrous surfaces shall be coated with a minimum of 4 mils of an NSF-61 approved epoxy. The main valve seat ring shall be bronze. Elastomers (diaphragms, resilient seats and O-rings) shall be Buna-N. The auxiliary pilot shall be bronze. The needle valve and isolation ball valves shall be brass and control line tubing shall be copper. The solenoid shall have a brass body, weatherproof enclosure per NEMA 4 and be suitable for operation on <voltage>.

1.4 Operating Conditions

The solenoid shut-off valve shall be suitable for pressures of <X to X> psi at flow rates up to <X> gpm.