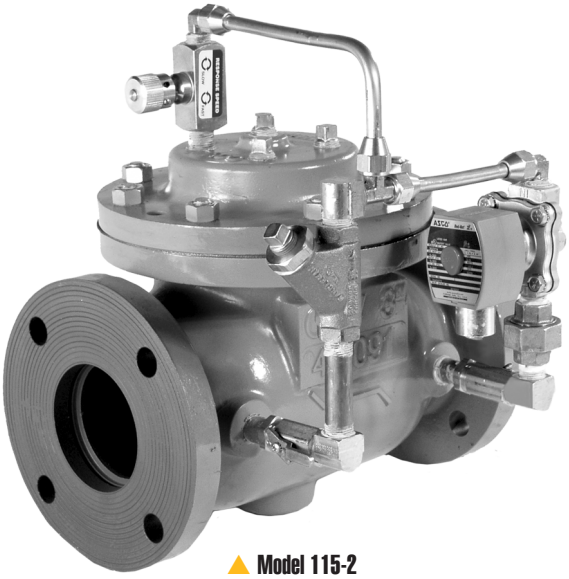


▲ Model 115-2

The Model 115-2 has an extremely wide range of applications: anywhere it is necessary to open and close a valve electrically. Typical examples include:

- Process control
- Irrigation systems
- Petroleum loading terminals
- Storage tank level control
- Automated wash systems
- Automated fountains
- Dust control

SERIES FEATURES

- Electrically operated solenoid allows valve to open or close
- Can be maintained without removal from the line
- Adjustable response speed
- Factory tested and can be pre-set to your requirements

OPERATION

A two-way solenoid, when closed, causes the main valve to close. Opening the solenoid opens the valve. The pilot system is equipped with a needle valve that allows the opening and closing speed of the valve to be adjusted.

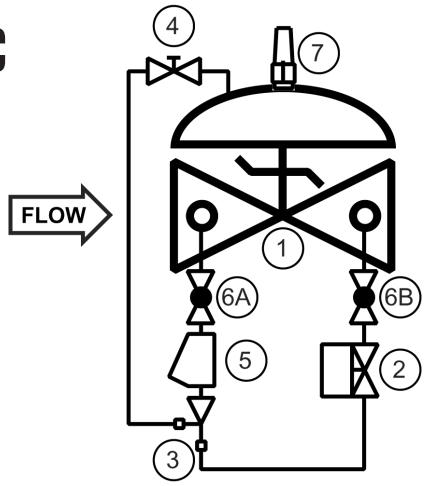
The solenoid can be supplied normally closed (energize to open) or normally open (energize to close).

COMPONENTS

The Model 115-2 consists of the following components, arranged as shown on the schematic diagram:

1.) **Model 65 Basic Control Valve**
2.) **Model 451 Two-way Solenoid Pilot**
3.) **Model 126 Ejector**
Fixed orifice pilot system supply restrictor
4.) **Model 141-2 Needle Valve**
Adjustable response speed
5.) **Model 159 Y-strainer**
Protects pilot system from dirt/debris
6.) **Model 141-4 Isolation Ball Valves**
7.) **Model 155 Visual Indicator** (Optional)

SCHEMATIC



RECOMMENDED INSTALLATION

- Install the valve with adequate space above and around the valve to facilitate servicing. Refer to the Dimension table.
- Valve should be installed with the bonnet (cover) at the top, particularly 8" and larger valves, and any valve with a limit switch.
- Shut-off valves should be installed upstream and downstream of the control valve. These are used to isolate the valve during startup and maintenance.
- Wire the valve solenoid via conduit appropriate to the application.

SIZING

Definitive sizing information can be found in the OCV Catalog, Series 115 section and Engineering section Performance Charts. Consult the factory for assistance and a copy of the OCV ValveMaster Sizing program.

MAX. PRESSURE

The pressures listed here are maximum pressures at 100°F. Also, working pressures of solenoids vary greatly, consult factory on application of OCV Model 115-2 valves when pressures exceed those stated in chart.

END CONNECTIONS	DUCTILE IRON	STEEL/STN STL	LOW-LEAD BRONZE
Threaded	300 psi	300 psi	300 psi
Grooved	300 psi	300 psi	300 psi
150# Flanged	250 psi	285 psi	225 psi
300# Flanged	300 psi	300 psi	300 psi

TOLL FREE 1.888.628.8258 • **phone:** (918)627.1942 • **fax:** (918)622.8916 • 7400 East 42nd Place, Tulsa, Ok 74145
email: sales@controlvalves.com • **website:** www.controlvalves.com

Model 115-2 Solenoid Shut-off Valve

Model 115-2

SIZES GLOBE/ANGLE
Screwed Ends - 1 1/4" - 3"
Grooved Ends - 1 1/2" – 6" (globe); 1-1/2"-4" (angle)
Flanged Ends - 1 1/4" - 24" (globe); 1 1/4" - 16" (angle)
FLUID OPERATING TEMPERATURE RANGE
(Valve Elastomers)
EPDM 32° F - 230°F*
MATERIALS Consult factory for others.
Body/Bonnet:
Ductile Iron (epoxy coated), Carbon Steel (epoxy coated), Stainless Steel, low-lead Bronze
Others available (consult factory)
Seat Ring:
low-lead Bronze, Stainless Steel
Stem: Stainless Steel, Monel
Spring: Stainless Steel
Diaphragm: EPDM*
Seat Disc: EPDM*
Pilot: low-lead Bronze, Stainless Steel
Other pilot system components: low-lead Bronze/Brass, All Stainless Steel
Tubing & Fittings: Copper/Brass, Stainless Steel
Solenoid:
Enclosure: Weatherproof NEMA 4X / Explosion Proof NEMA 4X, 6P, 7, 9
Body: Brass, Stainless Steel
Voltages: 24, 120, 240, 480 VAC / 12, 24 VDC
Note: Working pressures of solenoids vary greatly, consult factory on application of OCV Model 115-2 valves.

**Others available upon request.*
***Valves 1-1/4" through 24" are certified to NSF/ANSI 372. Valves 4" through 24" are also certified to NSF/ANSI 61-G.*

SPECIFICATIONS (Typical Commercial Plumbing Application)

The solenoid shut-off valve shall open and close via discrete electrical signals. The valve shall be equipped with a two-way solenoid valve that will allow the valve to open when <energized, deenergized>.

DESIGN
The solenoid 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 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 and isolation ball valves. The solenoid shut-off valve shall be operationally and hydrostatically tested prior to shipment.

MATERIALS OF CONSTRUCTION
The main valve body and bonnet shall be ductile iron per ASTM A536, Grade 65-45-12. All ferrous surfaces shall be coated with 4 mils of epoxy. The main valve seat ring shall be low-lead Bronze. Elastomers (diaphragms, resilient seats and O-rings) shall be EPDM. 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 and be suitable for operation on <voltage>.

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

ACCEPTABLE PRODUCTS
The solenoid shut-off valve shall be a <size> Model 115-2, <globe pattern, angle pattern>, with <150# flanged, 300# flanged, threaded, grooved> end connections, as manufactured by OCV Control Valves, Tulsa, Oklahoma, USA.

U.S. DIMENSIONS - INCHES

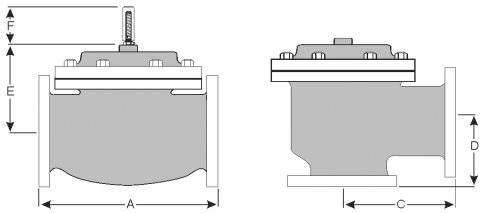
DIM	END CONN.	1 1/4-1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	24
A	SCREWED	8 3/4	9 7/8	10 1/2	13	--	--	--	--	--	--	--	--
	GROOVED	8 3/4	9 7/8	10 1/2	13	15 1/4	20	--	--	--	--	--	--
	150# FLGD	8 1/2	9 3/8	10 1/2	12	15	17 3/4	25 3/8	29 3/4	34	39	40 3/8	62
	300# FLGD	8 3/4	9 7/8	11 1/8	12 3/4	15 5/8	18 5/8	26 3/8	31 1/8	35 1/2	40 1/2	42	63 3/4
C ANGLE	SCREWED	4 3/8	4 3/4	6	6 1/2	--	--	--	--	--	--	--	--
	GROOVED	4 3/8*	4 3/4	6	6 1/2	7 5/8	--	--	--	--	--	--	--
	150# FLGD	4 1/4	4 3/4	6	6	7 1/2	10	12 11/16	14 7/8	17	--	20 13/16	--
	300# FLGD	4 3/8	5	6 3/8	6 3/8	7 13/16	10 1/2	13 3/16	15 9/16	17 3/4	--	21 5/8	--
D ANGLE	SCREWED	3 1/8	3 7/8	4	4 1/2	--	--	--	--	--	--	--	--
	GROOVED	3 1/8*	3 7/8	4	4 1/2	5 5/8	--	--	--	--	--	--	--
	150# FLGD	3	3 7/8	4	4	5 1/2	6	8	11 3/8	11	--	15 11/16	--
	300# FLGD	3 1/8	4 1/8	4 3/8	4 3/8	5 13/16	6 1/2	8 1/2	12 1/16	11 3/4	--	16 1/2	--
E	ALL	6	6	7	6 1/2	8	10	11 7/8	15 3/8	17	18	19	27
H	ALL	10	11	11	11	12	13	14	17	18	20	20	28 1/2

*GROOVED END NOT AVAILABLE IN 1 1/4"

For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 8" and larger valves, or any valves with a limit switch, in positions other than described. Space should be taken into consideration when mounting valves and their pilot systems.

A routine inspection & maintenance program should be established and conducted yearly by a qualified technician. Consult our factory @ **1-888-628-8258** for parts and service.

How to order your Model 115-2 valve
When Ordering please provide:
Fluid to be controlled -Model Number -Size
Globe or Angle -End Connection -Body Material
Trim Material -Solenoid Voltage -Energize to Open or Close Valve -Solenoid enclosure Weatherproof or Explosion Proof -Special Requirements / Installation requirements



QUALITY SYSTEM REGISTERED TO ISO 9001

Represented by:

TOLL FREE 1.888.628.8258 • **phone:** (918)627.1942 • **fax:** (918)622.8916 • 7400 East 42nd Place, Tulsa, Oklahoma 74145
email: sales@controlvalves.com • **website:** www.controlvalves.com