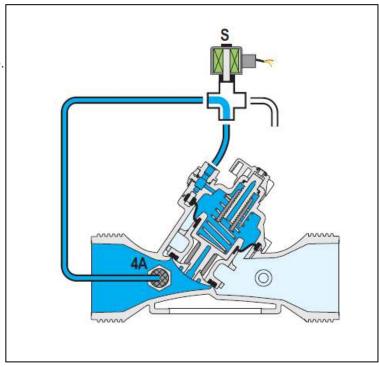
Solenoid Control Valve

(Sizes 1.5"- 6"; DN40-150)

Description:

The BERMAD Solenoid Controlled Valve is a Hydraulically operated, diaphragm actuated control valve. The BERMAD Model IR-110-X opens and closes Drip-tight in response to an electric signal.



Installation:

- 1. Ensure enough space around the valve assembly for future maintenance and adjustments.
- 2. Prior to valve installation, flush the pipeline to insure flow of clean fluid through the valve.
- 3. For future maintenance, install Isolation gate valves upstream and downstream from Bermad control valve.
- 4. Install the valve in the pipeline with the valve flow direction arrow in the actual flow direction.
- 5. For best performance, it is recommended to install the valve horizontally and upright.
- 6. After installation carefully inspect/correct any damaged accessories, piping, tubing, or fittings.
- 7. Cross-Check solenoid specifications with design requirements and solenoid/coil label.
- 8. Ensure approved cable protection. Confirm that the wires data meet solenoid specifications.

Note: Energizing the solenoid coil when it is not fixed in its place, is dangerous and might burn the coil.

Commissioning & Calibration:

- 1. Confirm that the valve installed in the flow direction.
- 2. Allow the valve to open by using the solenoid manual override or by: Operating the solenoid.
- 3. Open fully the upstream isolating valve and slowly open the downstream isolating valve, to fill-up, carefully, the consumers' line downstream from the Valve.
- 4. Check valve solenoid control feature by De-Energizing & Energizing the solenoid to close & open the valve.



Trouble-Shooting:

Symptoms	Cause	Remedy
Valve fails to open	Not sufficient inlet pressure.	Check for sufficient inlet pressure-
	2. Not sufficient flow.	2. Create demand/flow, confirm pilot setting-
	3. Solenoid functioning	3. Check solenoid power supply, coil & Manual Override Handle position
Valve fails to close	1. Control circuit is clogged.	Check for any debris trapped in the valve control circuit.
	2. Debris .	2. Check for any debris trapped in the valve body.
	3. Diaphragm-	3. Check diaphragm is not leaking-
	4. Solenoid functioning	4. Check solenoid power supply, coil & Manual Override Handle
		position.

Preventive Maintenance:

- 1. System operating conditions that effect on the valve should be checked periodically to determent the required preventative maintenance schedule.
- 2. Maintenance instructions:
 - 2.1. Tools required:
 - 2.1.1. Metric and imperial wrenches
 - 2.1.2. Anti-seize grease
 - 2.1.3. Visual inspection to locate leaks and external damages
 - 2.2. Functional inspection including: closing, opening and regulation.
 - 2.3. Close upstream and downstream isolating valves (and external operating pressure when used)
 - 2.4. Once the valve is fully isolated vent pressure by loosening a plug or a fitting.
 - 2.5. Open the screw nuts and remove the cover unit from the valve body. Disassemble necessary control tubs.
 - 2.6. It is highly recommended to stock a reserve parts assembly for each size. This allows minimum system field work. And system down time.
 - 2.7. Disassemble the cover and examine the inside parts carefully for signs of wear, corrosion, or any other abnormal conditions.
 - 2.8. Replace worn parts and all the Elastomers. Lubricate the bolts and screws threads with Anti seize grease.
 - 2.9. Winterizing /freezing prevention: drain the valve & the valve accessories (pilot, solenoid) on time.

Spare Parts

Bermad has a convenient and easy to use ordering guide for valve spare-parts and control system components. For solenoid valves refer to model and S/N on solenoid tags.

Pub # : IOMIR-110-X-1.5" 6"	By : YG 5/12	Rev: YG 5/12	File name : IOMIR-110-X1.5"-6"- 5/12	PT1AE08-01
-----------------------------	--------------	--------------	--------------------------------------	------------

