IOM RAF 6R0G

Pressure Reducing Valve with Hydraulic relay 2”- 4”

RAPHAEL VALVES INDUSTRIES

Sep-24

DESCRIPTION

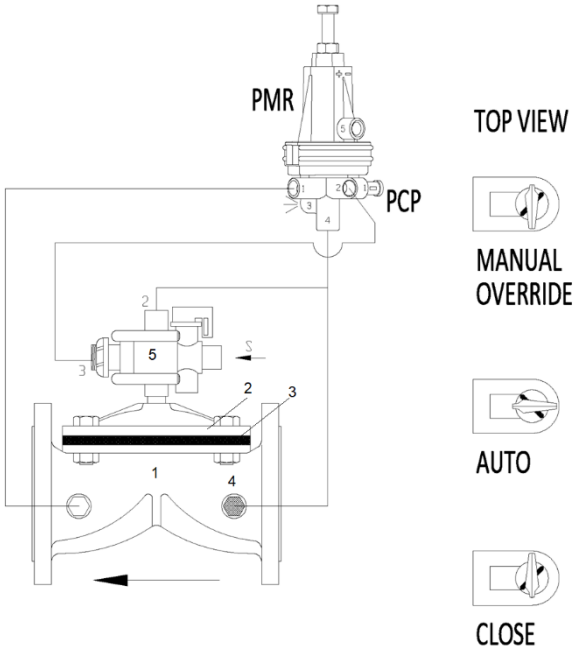
This pressure reducing valve is an automatic NC (Normally Closed) hydraulically remote-controlled valve designed to reduce a higher upstream pressure into a preset lower downstream pressure and to maintain this pressure constantly regardless of flow-rate or upstream pressure fluctuations. “Normally” means the state of the valve when the hydraulic relay is not activated.

INSTALLATION

- Before installing the RAF, flush the pipeline to remove scale, dirt and other particles that might affect the valve’s performance.
- Install the RAF as indicated by the arrow on the cover, showing flow direction.
- Make sure that the hydraulic relay is connected to the control’s pressure source.
- It is recommended to install isolation valves upstream and downstream the control valve.
- Make sure the “Galit” #5 manual override is in the “auto” position.
- Check for leaks; tighten bolts & fittings if necessary..

PARTS LIST

1. Body
2. Cover
3. Diaphragm
4. Self-Flushing “Finger” filter
5. Hydraulic relay
6. 3-Way pilot model PR
7. Pressure adjusting screw



OPERATING INSTRUCTIONS

1. Make sure that the “Galit” command port “S” is connected to water source.
2. Make sure that there is a downstream flow demand.
3. Turn adjusting screw on pilot # 7 counterclockwise all the way.
4. Pressurize “Galit” command port “S”.
5. Turn adjusting screw # 7 clockwise, until water will be discharged from the vent of pilot # 6 and the RAF will start to open.
6. To increase downstream pressure, continue to turn adjusting screw # 7 clockwise one turn at a time, allowing some time between turns for the RAF to respond. Check downstream pressure until required pressure is achieved.
7. To decrease downstream pressure, turn adjusting screw # 7 counterclockwise one turn at a time, allowing some time between turns for the RAF to respond. Check downstream pressure until required pressure is achieved.

To manually close the RAF, turn the “Galit” manual override sideways.

To operate the RAF by the “Galit”, turn the manual override to the “Auto” position.

To activate the “Galit” and open the RAF as PRV, pressurize port marked “S”.

To close the RAF, de-pressurize the port marked “S” on the “Galit”.

MAINTENANCE

- Check downstream pressure. Adjust if required.
- In freezing climates, the valve should be dismantled, and water drained during the winter months.

TROUBLSHOOTING RAF 6R0G

PROBLEM	CAUSE	CHECK	SOLUTION
The RAF does not open.	1. The "Galit" manual override is not in "auto" position. 2. The "Galit" is not pressurized. 3. Blocked or stuck "Galit". 4. Blocked pilot valve #6.	1. Check position. 2. Check the control pressure source and the control tubes. 3. No water venting from the pilot's #6 drain. 4. No water venting from the pilot's #6 drain.	1. Shift back to "auto" (center). 2. Check solenoid valve, prevent bents and open clogged tubes. 3. Turn off water supply to the valve. Dismantle and clean "Galit" ports. Reassemble and activate. 4. Turn off water supply to valve. Dismantle and clean drains in the pilot. Reassemble and activate.
The RAF does not close.	1. The "Galit" manual override is not in "auto" position. 2. The Galit's command port is still under pressure. 3. Blocked or stuck "Galit". 4. Foreign object on sealing seat. 5. Blocked self-flushing filter #4.	1. Check position. 2. Check the control pressure source. 3. Check manual override closing option. 4. Poor water flow in the RAF downstream.	1. Shift back to "auto" (center). 2. De-pressurize the control tube. If there is still pressure in the control tube (elevation), an offset spring should be installed into the "Galit". 3. Turn off water supply to the RAF. Dismantle and clean drain connections in the "Galit". Reassemble and activate. 4. Turn off water supply to the RAF. Disassemble cover, diaphragm and remove foreign object. Check that diaphragm, body and cover are not damaged. Reassemble and activate. 5. Turn off water supply to the RAF. Remove filter to clean or change it. Reassemble and activate
Irregular flow.	1. Blocked or damaged pilot #6.	1. Irregular downstream pressure.	1. Turn off water supply to the RAF. Dismantle and clean pilot's drains. Check state of the membrane. In case of internal parts wear, change pilot. Reassemble and activate.

RAPHAEL, founded in 1949, is the first Israeli manufacturer of water control valves. RAPHAEL´s research department constantly strives to introduce new and innovative products and solutions for water control systems including water works, fire-protection and irrigation systems.

RAPHAEL

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