



# IOM RAF 60-32

Electric Remote Control Valve N.C.  
3-Way Pressure Reducing (G75 solenoid)  
2" – 4"

**RAPHAEL VALVES INDUSTRIES**

Sep-24

## DESCRIPTION

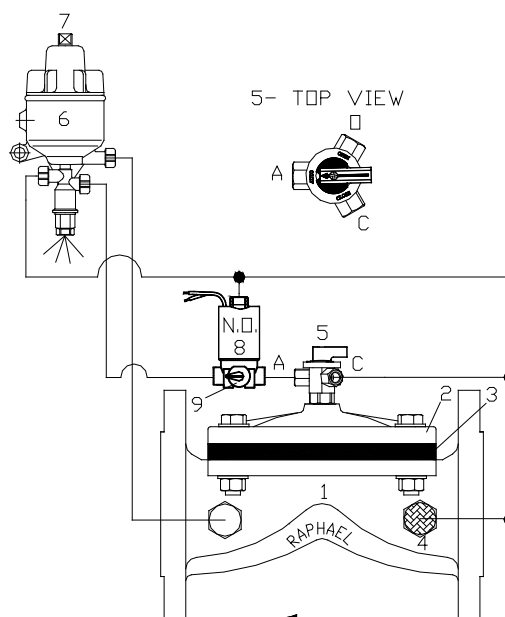
This pressure reducing valve is a NC (Normally Closed) electric remote controlled automatic valve designed to reduce a higher upstream pressure into a preset lower downstream pressure and to maintain this pressure constantly regardless of flowrate or upstream pressure fluctuations. "Normally" means the state of the valve when the solenoid is not energized.

## INSTALLATION

- Before installing the valve, flush the pipeline to remove scale, dirt and other particles that might affect the valve's performance.
- Install the valve as indicated by the arrow on the valve's cover, showing flow direction.
- Make sure that the solenoid has the right specifications and connect it to the energy source.
- It is recommended to install isolation valves (butterfly valves type B8) upstream and downstream the control valve.
- Turn the 3-way selector # 5 to the "Close" position and turn on the water supply to the valve.
- Check for leaks; tighten bolts & fittings if necessary.

## PARTS LIST

1. Body
2. Cover
3. Diaphragm
4. Self-Flushing "Finger" Filter
5. 3-Way Selector
6. 3-Way Pilot Model PC
7. Pressure Adjusting Screw
8. 3-way NO solenoid
9. Solenoid's manual override



## OPERATING INSTRUCTIONS

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1. Make sure that there is a downstream flow demand.
2. Turn adjusting screw # 7 clockwise all the way.
3. Turn the 3-way selector # 5 to the "Auto" position.
4. Energize solenoid # 8.
5. Turn adjusting screw # 7 counterclockwise, until water will be discharged from the bottom of pilot # 6 and the valve will start to open.
6. To increase downstream pressure, continue to turn adjusting screw # 7 counterclockwise one (1) turn at a time, allowing some time between turns for the valve to respond. Check downstream pressure until required pressure is achieved.
7. To decrease downstream pressure, turn adjusting screw # 7 clockwise one (1) turn at a time, allowing some time between turns for the valve to respond. Check downstream pressure until required pressure is achieved.

**To manually open the valve completely, turn the 3-way selector # 5 to the "Open" position.**

**Please note that by so doing the pressure downstream will be as high as the pressure upstream.**

**To manually close the valve, turn the 3-way selector # 5 to the "Close" position.**

**To operate the valve by an electric remote control, turn the 3-way selector to the "Auto" position.**

**To maintain preset pressure - energize solenoid # 8 or turn override # 9 to the open position.**

**To close the valve - de-energize solenoid # 8.**

## MAINTENANCE

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- Check downstream pressure. Adjust if required.
- No maintenance is required. However, from time to time it is recommended to rotate the 3-way selector 360° to prevent sticking by sediments. During the off-season, energize the solenoid from time to time for the same reason.
- It is recommended that the valve will be easily accessible as well as clearly marked to prevent damage.
- In freezing climates, the valve should be dismantled, and water drained during the winter months.

## TROUBLESHOOTING RAF 60-32

PROBLEM	CAUSE	CHECK	SOLUTION
The valve does not open.	<ol style="list-style-type: none"> <li>1. The 3-Way selector (5) is in the Close position.</li> <li>2. The solenoid (6) does not get electrical supply.</li> <li>3. The solenoid (8) gets electrical supply, but the hydraulic valve does not open. Magnetic coil is damaged.</li> <li>4. Blocked or stuck solenoid (8).</li> <li>5. Blocked pilot #6.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check state of the selector.</li> <li>2. Check for loose contacts or faulty power supply.</li> <li>3. Check magnetic coil by touching it with a small screwdriver. It should be magnetized when solenoid is energized.</li> <li>4. No water from solenoid's drain.</li> <li>5. No water coming out of the pilot's drain.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn selector to the Open or Auto position.</li> <li>2. Reassemble and activate.</li> <li>3. Replace damaged coil with a new one. Reassemble and activate.</li> <li>4. Turn off water supply to the valve. Dismantle and clean solenoid's drain. Reassemble and activate.</li> <li>5. Turn off water supply to valve. Dismantle and clean drainers in the pilot. Reassemble and activate.</li> </ol>
The valve does not close.	<ol style="list-style-type: none"> <li>1. The 3-Way selector (5) is in the Open position.</li> <li>2. Power supply is not turned off or manual override # 9 is in the open position.</li> <li>3. Blocked or stuck solenoid (8).</li> <li>4. Foreign object on seal seat (3).</li> <li>5. Blocked self-flushing filter (4).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check state of selector.</li> <li>2. Check electrical supply to the solenoid and position of override # 9.</li> <li>3. Check manual closing option.</li> <li>4. Poor water flow in the valve downstream.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn selector to the Auto or Close position.</li> <li>2. Disconnect electrical supply or turn manual override # 9 to the automatic position.</li> <li>3. Turn off water supply to the valve. Dismantle and clean drain connections of the solenoid. Reassemble and activate.</li> <li>4. Turn off water supply to the valve. Remove cover and remove foreign object. Check that diaphragm, body and cover are not damaged. Reassemble and activate.</li> <li>5. Turn off water supply to the valve. Remove filter to clean or change it. Reassemble and activate</li> </ol>
Irregular flow.	<ol style="list-style-type: none"> <li>1. Blocked or damaged pilot #6.</li> </ol>	<ol style="list-style-type: none"> <li>1. Irregular downstream pressure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn off water supply to the valve. Dismantle and clean pilot's drains. Check state of the membrane. In case of internal parts wear, change pilot. Reassemble and activate.</li> </ol>

**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.



Waterworks



Fire Protection



Irrigation



Smart Solutions



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