



IOM RAF 31P

Manual & Electric Remote Control Valve 1"-4"
w/plastic Solenoid

RAPHAEL VALVES INDUSTRIES

DESCRIPTION

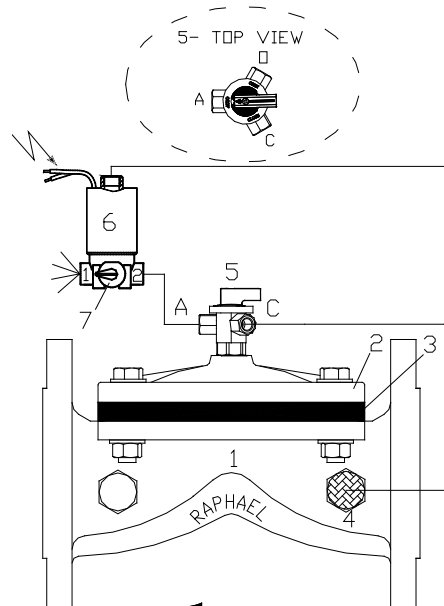
This valve is a hydraulic “on-off” control valve that can be operated manually or by electric remote control. The valve is “normally closed” (NC). “Normally” means the state of the valve when the solenoid is de-energized.

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.
- 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 N.O. Solenoid
7. Manual override



OPERATING INSTRUCTIONS

1. **Electrical Operation**

- Turn 3-way selector (5) to the “Auto” position.
 - To open the valve, energize solenoid (6) or change the position of manual override # 7 to simulate energizing the solenoid.
 - To close the valve, de-energize solenoid (6) or change the position of manual override # 7 to simulate de-energizing the solenoid..

2. **Manual Operation**

- To open the valve, turn the 3-way selector (5) to the “Open” position.
- To close the valve, turn the 3-way selector (5) to the “Close” position.

MAINTENANCE

- No maintenance is required. However, from time to time it is recommended to rotate the 3-way selector 360° to prevent sticking by sediments.
- It is recommended that the valve be easily accessible as well as clearly marked to prevent accidental damage.
- In freezing climates, the valve should be dismantled, and water drained during the winter months.

TROUBLESHOOTING RAF-31 w/Geva-75 solenoid

PROBLEM	CAUSE	CHECK	SOLUTION
RAF does not open.	<ol style="list-style-type: none"> 1. The 3-Way selector (5) is in the "Close" position or is clogged or damaged. 2. The solenoid (6) is not connected to power supply. 3. The solenoid (6) is energized, but the valve does not open. 	<ol style="list-style-type: none"> 1. Check state of selector. 2. Check for loose wires or improper power supply. 3. No 'click' sound when solenoid is activated and no water is vented through the solenoid's vent. Clogged solenoid or damaged coil 	<ol style="list-style-type: none"> 1. Turn selector to the "Open" or "Auto" position. If no water is drained through these ports, turn off water supply to the valve, dismantle and clean vents. Replace selector if needed. Re-assemble and activate. 2. Wire properly and activate. 3. Replace coil if needed. Or: turn off water supply to the valve. Dismantle and clean solenoid's vents. Reassemble and activate.
RAF does not close.	<ol style="list-style-type: none"> 1. The 3-Way selector (5) is in the "Open" position. 2. Manual override # 7 is activated. 3. Power supply is still on. 4. Power supply is off but valve does not close due to blocked or stuck solenoid (6). 5. Foreign objects on sealing seat. 6. Damaged diaphragm (3). 7. Blocked self-flushing filter (4). 	<ol style="list-style-type: none"> 1. Check state of selector. 2. Check state of manual override 3. Check electrical supply to the solenoid. 4. Check by manually closing the valve using the 3- way selector # 5. 5. Water flow downstream. 6. Water is constantly vented from solenoid. 7. No response to manually closing the valve. 	<ol style="list-style-type: none"> 1. Turn selector to the "Auto" or "Close" position. 2. Change position of manual override to the position shown in drawing. 3. Disconnect electrical supply. 4. Turn off water supply to the valve. Dismantle and clean the solenoid's vents. Reassemble and activate. 5. & 6. Turn off water supply to the valve. Dismantle cover (2) and diaphragm (3). Remove foreign object. Check that diaphragm, body and cover are not damaged. Replace if required. 7. Turn off water supply to valve. Disassemble filter, clean or replace it. Re-assemble 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.



Waterworks



Fire Protection



Irrigation



Smart Solutions



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