



IOM ULTRAF 6331

Ultrasonic Hydrometer Electric 24VAC 3-Way
Pressure Reducing, Metal Pilot, w/ Pulse
1.5" - 4" (16 bar)



 **RAPHAEL**

Apr-24

DESCRIPTION

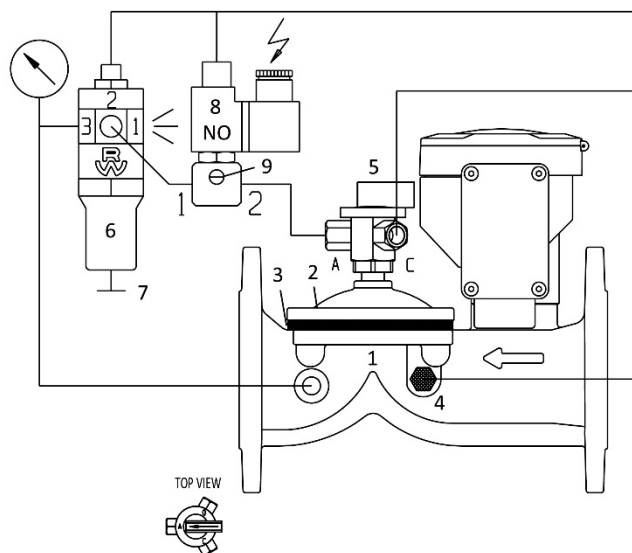
This water meter and pressure reducing valve is a NC (Normally Closed) electric controlled valve. When remotely energized, it is designed to reduce a higher upstream pressure into a preset lower downstream pressure and to maintain this pressure constantly regardless of flowrate or upstream pressure fluctuations. “Normally” means the state of the Ultraf when the solenoid is not energized.

INSTALLATION

- Before installing the Ultraf, 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 body, showing flow direction.
- Make sure that the solenoid has the right specifications and connect it to the controller power source.
- It is recommended to install isolation valves upstream and downstream the Ultraf.
- 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 P683
7. Pressure adjusting screw
8. 3-way solenoid 12-24VDC /24-110VAC
9. Solenoid’s manual override



OPERATING INSTRUCTIONS

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 via the irrigation controller.
5. Turn adjusting screw 7 counterclockwise, until water will be discharged from the vent (1) of pilot 6 and the Ultraf will start to open.
6. To increase downstream pressure, continue to turn adjusting screw 7 counterclockwise one 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 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 Ultraf 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 Ultraf, turn the 3-way selector 5 to the “Close” position.

To operate the Ultraf by an electric command, turn 3-way selector 5 to the “Auto” position.

To irrigate – energize solenoid valve 8 or turn manual override 9 to vertical position (open position).

To stop irrigation – stop energizing the solenoid 8 and turn manual override 9 to horizontal position (close position).

MAINTENANCE

- 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.
- 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 ULTRAF 6331

PROBLEM	CAUSE	CHECK	SOLUTION
The Ultraf does not open.	<ol style="list-style-type: none"> The 3-Way selector 5 is in the Close position. The solenoid 8 does not get electrical command. The solenoid 8 gets electrical command but the Ultraf does not open. Blocked or stuck solenoid 8. Blocked pilot 6. No irrigation program is "on". 	<ol style="list-style-type: none"> Check state of the selector. Check for loose wires or improper voltage. Check electric coil by gently clutching a thin steel screwdriver to the coil. It should be magnetized. No water venting from pilot's drain (#1). No water coming out of the pilot's drain (#1). 	<ol style="list-style-type: none"> Turn selector to the Open or Auto position. Make sure voltage at solenoid is correct and continues. Replace damaged coil with a new one. Reassemble and activate. Turn off water supply to the valve. Dismantle and clean solenoid's drains. Reassemble and activate. Turn off water supply to valve. Dismantle and clean drains in the pilot. Reassemble and activate. Initiate an irrigation program.
The Ultraf does not close.	<ol style="list-style-type: none"> The 3-Way selector 5 is in the "Open" position. The solenoid 8 still under electrical command Or- manual override 9 is in the open position (vertical). Blocked or stuck solenoid 8. Foreign object on diaphragm seat 3. Blocked self-flushing filter 4. Irrigation program is still "on". 	<ol style="list-style-type: none"> Check state of selector. Check for voltage at solenoid socket and position of manual override 9. Check manual closing option using manual selector 5. Poor water flow downstream. 	<ol style="list-style-type: none"> Turn selector to the "Auto" or "Close" position. Stop irrigation command. Turn manual override 9 to the automatic (horizontal) position. Turn off water supply to the valve. Dismantle and clean drain connections of the solenoid. Reassemble and activate. Turn off water supply to the valve. Remove cover 2 and remove foreign object. Check that diaphragm 3, body and cover are not damaged. Reassemble and activate. Turn off water supply to the valve. Remove filter to clean or change it. Reassemble and activate. Terminate/clear the current irrigation program.

Irregular pressure downstream	1. Blocked or damaged pilot 6.	1. Irregular downstream pressure.	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.
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