RAF 1031

Electric Float Control Valve, 3-W Metal Solenoid

The RAF 1031 is a Normally Closed (N.C) electric float control valve, activated by line pressure.
The electric circuit is switched by a float hanging over the water surface at the desired height.
When the water level drops below the float, the electric circuit is switched on and opens the RAF 1031 through a solenoid valve. As the rising water reaches the maximum level, the solenoid is de-energized and the RAF 1031 closes.
The RAF 1031 is a non-modulating service valve, operating as an on/off valve.

Maximal Nominal Pressure: 16 bar

MARKETS

Open field Irrigation | Water Transmission | Pump Station

TECHNICAL DATA

Fluid: raw water or filtered water

Nominal Diameter (DN): from 25 to 400 mm (1" to 16")

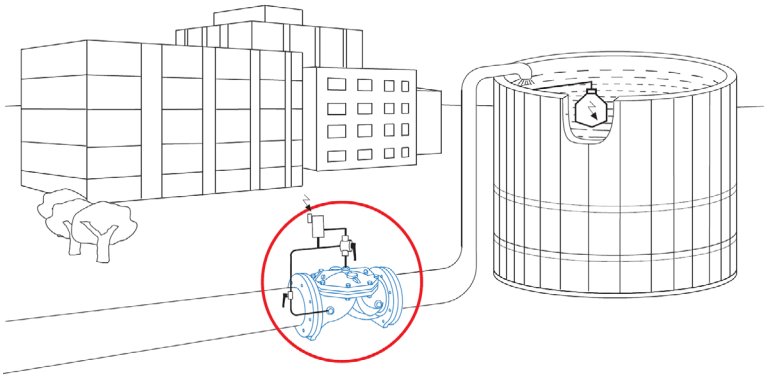
Available connections: Flanged, Threaded or Grooved

Nominal Pressure (PN): 16 bar

Medium Temperature: up to 70 °C

Body material: Ductile Iron

Standard Controls: RAF 1031 electric float control valve controls with Raphael's 3-W solenoid valve. An electric circuit is switched On/Off by a dry contact float hanging over the water surface.
In case of power failure, the RAF 1031 remains tight-close to avoid an uncontrolled spill of water.



TYPICAL APPLICATIONS

- Water level control of a water tank (the valve can be located inside or outside the water level of the tank)
- Best for remote or local control of reservoirs and water tanks level control when electricity is available.
- The valve can be located also above the upper water level of the tank

ADJUSTMENT

Fix the float's cable to the reservoir's inner wall at the desired level. This fixation point will be in between minimum and maximum levels, allowing the float to turn up and down.

The length of electric cable left after the fixation between minimum and maximum water level preset.

THE RAF 1031 is activated by line pressure and controlled by a 3-Way solenoid valve. An electric circuit is switched ON/OFF by a dry contact float hanging over the water surface. When the float hangs by its cable vertically above the water surface, the circuit is connected, the solenoid is energized, and the RAF 1031 fully opens. When the float turns over by the rising water level, the electrical circuit is disconnected, the soilenod is de-energized, and the valve closes. In case of power failure, the RAF 1031 remains light-closed to avoid uncontrolled spill of water.

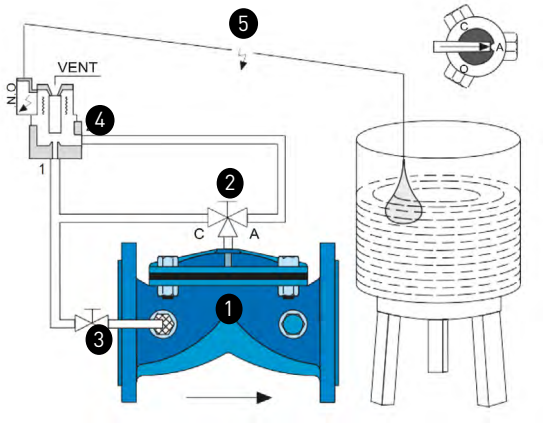
AUTOMATIC OPERATION:

When the water level is low, switch the selecting cock to AUTO to connect the electric circuit. This energizes the solenoid, causing the RAF's control chamber to drain. As the water level rises and activates the electric float, the electric circuit disengages, de-energizing the solenoid. Line pressure is then directed to the control chamber through the solenoid. Consequently, the RAF 1031 closes, halting the water flow into the tank.

MANUAL OPERATION:

To open the valve overriding the float place the selecting cock in OPEN position.

To close the valve overriding the float place the selecting cock in CLOSE position.



RAF-1031 Electric Float Control Valve

Ref	Name
1	Self-cleaning screen filter
2	3-W valve
3	Cock valve
4	3-W (N.O.) metal solenoid
5	Electric Float

RECOMMENDED FLOW

Nominal Diameter		Recommended Flow Rate			
		(m3/h)		(gpm)	
mm	inch	Normal	Intermittent	Normal	Intermittent
25	1	22	30	97	132
40	1.5	25	35	110	154
50	2	41	60	180	264
65	2.5	70	85	308	374
80-65-80	3D	70	85	308	374
80	3	95	125	418	550
100-80-100	4D	95	125	418	550
100	4	177	200	779	880
125-100-125	5	177	200	779	880
150-100-150	6D	177	200	779	880
150	6	240	300	1056	1321
200	8	430	630	1893	2773
250	10	822	1025	3618	4512
300	12	822	1025	3618	4512
350-300-350	14D	822	1025	3618	4512
350	14	1170	1600	5150	7043
400	16	1233	1650	5428	7263

Nominal diameter only, For full dimensions please refer to engineering department.

FEATURES

- Basic RAF valve two-layered Epoxy-polyester coated
- Self-cleaning screen filter
- 3-W (N.O.) metal solenoid valve
- Electric float cable (w/10m)
- 3-W selecting cock valve
- Reinforced plastic tubing
- Power source 24 VAC 50/60 Hz

OPTIONAL FEATURES:

- Rilsan coating
- Large capacity external filter
- Copper and stainless steel tubing
- Power source 110/220 VAC & 9/12/24 VDC

PLEASE SPECIFY

- Maximum operating pressure (closed valve)
- Electric source data if different than standard