

R830S

Brass Solenoid Valves for Rainfresh UV Systems



The R830S solenoid valve is an optional safety accessory for Rainfresh residential UV systems. It's function is to shut off the water supply in case of power-failure, UV lamp failure or controller failure, thereby preventing consumption of un-treated drinking water.

Where is the solenoid connected?

The solenoid has 3/4" female NPT connections and is typically plumbed on the UV outlet. The solenoid is electrically connected to the solenoid output wire (see fig 1) on the electronic controller (ballast). It does not need a separate power connection.

How does the solenoid work?

The solenoid operates in a "normally closed, open-when-energized" configuration. This means that when the solenoid does not receive power, it is in a closed position and opens water flow only when energized. In case of a power or lamp failure, the solenoid instantly returns to the closed position and shuts off the water supply, thereby preventing potentially unsafe water from being consumed. When normal UV function is restored, the solenoid automatically opens up the water for use.

What if I need water during shut-down?

The R830S solenoid features a manual override knob which can be turned to allow water flow during shut-down (see fig 2). This water can be used for washing, toilets etc, but should not be used for drinking. When normal conditions are restored, the knob should be turned to it's original position and the plumbing lines after the UV should be sanitized with bleach to prevent microbial growth within the plumbing lines.



Fig 1



Override Knob Normal Service

Override Knob Bypass Position

Fig 2



Can I use the solenoid valve with any Rainfresh UV System?

In order to install the R830S solenoid valve, the UV electronic ballast must have a solenoid output. If your controller does not have a solenoid output wire, you must order the solenoid-capable ballast separately from Rainfresh.



Technical Specifications

Model	R830S
Voltage	12 V DC
Inlet/Outlet Connection	3/4" Female NPT
Max Pressure	6.9 bar (100 psi)
Seals	EPDM
Body	Brass - UNI EN 12165 CW617N
Armature tube	Stainless steel AISI series 300
Fixed core	Stainless steel AISI series 400
Plunger	Stainless steel AISI series 400
Phase displacement ring	Copper - Cu 99,9%
Spring	Stainless steel AISI series 300



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