



Firecycle III® Single Interlock

Cycling Single Interlock

When the detector (1) is activated, a signal is sent to the VFR-400 release control panel (2). The panel sends the appropriate alarm signals and, at the same time, powers the normally open (N/O) (3) and normally closed (N/C) (4) solenoid valves, isolating the pneumatic actuator (5) and releasing pressure from the priming chamber. The priming chamber (6) of the flow control valve is then vented faster than water is supplied through the restricted orifice (7), allowing the flow control valve to open. The water enters the system piping, but until a sprinkler (8) is activated no water is discharged. When the flow control valve operates, pressure opens the pressure operated relief valve (PORV) (9) continuously venting the water to the priming chamber, ensuring the deluge valve remains in the open position. After the detectors cool (reset) the VFR-400 activates the "soak timer", allowing the system to continue discharging water for a preset time period. After the "soak timer" has expired, the normally closed solenoid is allowed to close and reestablish prime pressure, and stop the flow of water. If the detector senses a flare-up of the fire, the cycle begins again. If the detector never cools completely, or is damaged, the system will continue to discharge water.

