

## Zone control valves

### 1. OS&Y valve

The OS&Y (Outside Screw and Yoke) valve controls water flow and provides a visual indication of its open or closed status. It ensures reliable water supply during emergencies and facilitates maintenance by allowing isolation of system sections for inspection, repair, or replacement without disrupting overall operation

### 2. Non Return valve

The non-return valve ensures one-way water flow, preventing backflow and maintaining a reliable supply during emergencies. It also supports the jockey pump by preventing water loss back into the supply line, ensuring the system remains pressurized and ready for operation

### 3. Flow Switch

The flow switch detects water flow in the pipes when a sprinkler or hose activates. It operates using a paddle or vane that moves when water flows, triggering an electrical signal to the fire alarm panel. This alerts occupants and initiates emergency responses

#### 4. Test and drain valve

The test and drain valve serves three main functions:

- Testing: It allows for testing the water flow and pressure in the system, simulating sprinkler activation to verify proper operation.
- Draining: it is used to drain water from the system during maintenance or repairs
- Off : normal position of valve

#### 5. The pressure reducing valve (PRV)

The pressure reducing valve (PRV) designed to reduce and control the pressure of water entering the system, ensuring it remains within a safe and optimal range for components like sprinklers and hoses. It protects the system from excessive pressure that could cause damage, while maintaining adequate flow for effective firefighting.