

Table 9.7: Automatic Sprinkler System Requirements

ITEMS	REQUIREMENTS
<b>22. SECTION OR FLOOR ZONE CONTROL VALVE (ZCV)</b>	<ul style="list-style-type: none"> <li>i. A sectional or floor zone control valve (ZCV) assembly shall be installed where the tapping is taken from the sprinkler riser for each floor in multi-story buildings.</li> <li>ii. All Highrise buildings shall be provided with a motorized Zone Control Valve, supervised by a zone control valve control panel for annunciation and manual operation by Civil Defence, to control, activate or de-activate the desired floor sprinkler. The zone control valve control panel shall be located at the Fire Command Center, next to the main Fire detection and Alarm control panel or at the fire pump room.</li> <li>iii. ZCV shall have supervised Butterfly valve, fitted with an indicator showing "OPEN" and "CLOSE" positions, and complete with padlocked securing straps. The valve shall be mounted on the upstream side of the flow switch.</li> <li>iv. ZCV shall have a water flow alarm switch having paddle type water flow detector suitable for the size of the pipe in which it is installed shall be fixed after the butterfly valve, on the main supply pipe and before any sprinkler connection is taken off.</li> <li>v. ZCV shall have an inspector test and drain connections having not less than 25 mm diameter shall be installed on downstream side of flow switch.</li> <li>vi. ZCV shall have dial pressure gauges suitable for the water pressures that shall be fitted so that they can be easily removed for testing and checking without shutting down the water supply. Pressure gauge shall be installed between the butterfly valve and the water flow switch.</li> <li>vii. The minimum distance between the water flow switch and the butterfly valve and the test &amp; drain valve shall be not less than 600 mm.</li> <li>viii. The water flow switch shall be mounted on the top of the pipe or as recommended by the original equipment manufactures data sheet.</li> <li>ix. All the equipment of ZCV assembly shall be rated for the system working pressure and water temperature service and approved by the Civil Defence department as per <b>Section 6</b>.</li> <li>x. The ZCV assembly shall be installed in an easily accessible &amp; visible locations, preferably inside the star enclosure above the required headroom height.</li> <li>xi. ZCV assembly shall be provided with an identification sign board in a visible location in both Arabic &amp; English languages.</li> <li>xii. Where the ZCV assembly is located in a closed room or shaft, the access door or panel shall be provided with an identification sign board in visible location in both Arabic &amp; English.</li> </ul>

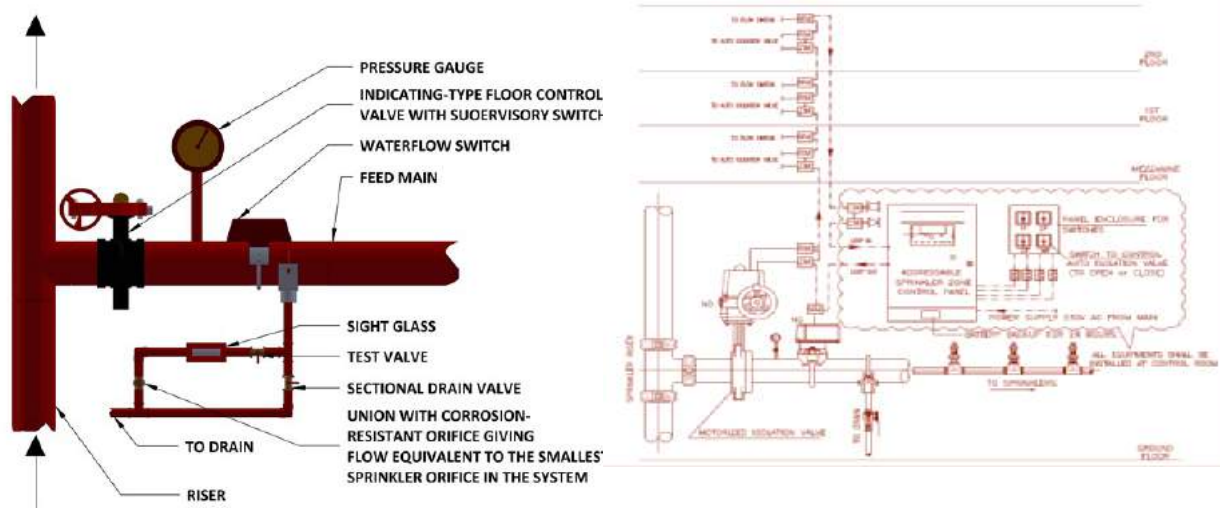


Figure 9.17.: Zone Control Valve