

## 4.7. Installation and Spacing of Spot Type Heat Detection System

- 4.7.1.** The Installation and Spacing of Spot Type Smoke Detection and Alarm System shall comply with **Table 8.7.**, Heat Detection System as per **Table 8.6.** and the General Requirements for Fire Detection and Alarm System as per **Table 8.1.**

**Table 8.7.: Installation and Spacing of Spot Type Heat Detection Systems**

ITEMS	REQUIREMENTS
<b>1. INSTALLATION AND SPACING OF SPOT TYPE HEAT DETECTORS</b>	<b><u>1. GENERAL</u></b>
	<ul style="list-style-type: none"> <li>i. The location and spacing of heat detectors shall be based upon pre-existing ambient temperature that could exist in the protected compartment.</li> <li>ii. Detector location and spacing shall take into consideration the following features. <ul style="list-style-type: none"> <li>a. Ceiling shape and surface.</li> <li>b. Ceiling height.</li> <li>c. configuration of material content in the area.</li> <li>d. combustion characteristics of the fuel load in the area.</li> <li>e. compartment ventilation.</li> <li>f. Ambient temperature, pressure, altitude, humidity and atmosphere.</li> </ul> </li> <li>iii. If the intent is to protect against specific hazard, detectors shall be placed closer to the hazard, than required by the spacing guidelines</li> <li>iv. In general, shall be located on the ceiling not less than 100 mm from the side-wall. Where ceiling coverage is adequate and detectors are required on side-walls, they shall be installed on the sidewalls between 100 mm and 300 mm from the ceiling.</li> </ul>
	<b><u>2. SMOOTH CEILINGS</u></b>
	<ul style="list-style-type: none"> <li>i. The distance between detectors shall not exceed their listed spacing, and there shall be detectors within a distance of one-half the listed spacing, measured at right angles from all walls or partitions extending upward to within the top 15 percent of the ceiling height.</li> <li>ii. All points on the ceiling shall have a detector within a distance equal to or less than that of their listing specifications.</li> </ul>
	<b><u>3. IRREGULAR CEILINGS</u></b>
	<ul style="list-style-type: none"> <li>i. For irregularly shaped areas, the spacing between detectors shall be permitted to be greater than the listed spacing, provided that the maximum spacing from a detector to the farthest point of a sidewall or corner within its zone of protection is not greater than 0.7 times the listed spacing.</li> </ul>
	<b><u>4. CEILINGS WITH SOLID JOIST CONSTRUCTION</u></b>
	<ul style="list-style-type: none"> <li>i. The design spacing of heat detectors, where measured at right angles to the solid joists, shall not exceed 50 percent of the listed spacing.</li> <li>ii. In the case of solid joist construction, detectors shall be mounted at the bottom of the joists.</li> </ul>