4. DETECTION

4.1. Automatic fire detection and alarm

The installation of automatic fire detection must detect and signal any beginning of a fire as quickly as possible and implement (activates) any safety equipment associated with it.

4.2. Fire safety system (FSS)

A system consisting of all the equipment used to collect all information or orders related to fire safety only, process them, and perform the necessary functions to secure a building or establishment. In its most complete version, an FSS consists of two main subsystems: a fire detection system (FDS) and a fire safety Actuator system (FSAS).

4.2.1. Functions

Therefore, an FSS performs two functions through two independent and compatible subsystems:

4.2.1.1. Fire detection

This involves gathering information through automatic detectors or manual triggers.

4.2.1.2. Fire safety Activation

This involves the activation of a certain number of technical equipment contributing to safety against the risks of fire and panic, based on the information transmitted by the detection system when it exists, or based on orders from manual controls.

4.2.2. Composition

The fire detection system (FDS): The FDS is a system consisting of all the equipment necessary for fire detection, including:

- Fire detectors (FDs);
- Control and signaling equipment (CSE) or signaling panel (SP);
- Power supply equipment;
- Manual triggers (MT);

  and optionally,

- Associated devices that can be placed between fire detectors and control and signaling equipment (or signaling panel).

Fire Safety Actuator System (FSAS): The FSAS is a system consisting of all the equipment that, based on received information or orders, performs the pre-established functions necessary to secure a building or establishment in the event of a fire.

In its basic version, the FSAS of an establishment is a simple 'manual trigger' control unit, CU. Associated with a safety-actuated device, SAD, in its most advanced version, it includes signaling devices of varying complexity depending on the functions to be performed. Safety-actuated devices ensuring these functions, and an alarm element, AE, manage the devices controlling all or part of the following functions:

1. Compartmentalization

2. Evacuation of individuals (Evacuation signal diffusion, Unlocking of emergency exits, Emergency lighting)

3. Smoke extraction through the activation of fans, opening of shutters, smoke vents, front-opening.

4. Automatic extinguishing.

5. Shutdown of certain technical installations, air conditioning, heating, elevator, etc.