
Automatic fire detection and alarm systems— Methods of test for actuating devices

Method 27: Cross sensitivity test

1 SCOPE

This Standard sets out the method of test for actuating devices to establish that they will not enter an alarm state when exposed to specified concentrations of nominated substances other than CO.

2 PRINCIPLE

The actuating device is exposed, sequentially, to an environment containing each of six substances, other than CO, to establish that the device will not respond to these substances.

3 APPARATUS

A test facility, in the form of a sealable chamber internally 1000 mm long by 400 mm wide by 500 mm high, shall be provided (see Figure 1). The chamber shall have facilities for the following:

- (a) Mounting not less than five CO fire detectors.
- (b) Mixing fan.
- (c) An inlet to allow the introduction of purge air.
- (d) An outlet to allow the exhausting of the air/test medium mixture to a safe area.
- (e) An inlet to allow the introduction of the test medium.
- (f) A sensor to measure the level of CO within the chamber.
- (g) A sensor to measure the temperature within the chamber.
- (h) A sensor to measure the humidity within the chamber.
- (i) Adjustment and maintenance of the CO, temperature and humidity within the chamber.

The sensors described in Items (f), (g) and (h) shall be located 100 mm below the top of the chamber.