RM Insight®

Fire detection and alarm systems

vero

Committed to your success

The life safety benefits of smoke detectors are well known but having a properly installed, maintained and monitored fire detection and alarm system can also assist with reducing property and consequential fire losses.

When considering the best option for fire detection a risk assessment that considers the value of assets being protected and the impact of any business interruption from a fire should be completed. The detection system will also need to be configured to suit the physical characteristics of the site and the environment in which it operates. Depending on the property, there may also be mandatory legislative and building code requirements for the installation of monitored fire alarm systems. which in turn are designed to AS 1670.1 Fire detection, warning, control and intercom systems. When selecting a fire detection system, a suitably qualified fire protection contractor or consultant should be engaged.

Detection

There are various types of fire detectors which can detect smoke, heat, flame, and sparks including:

- Spot smoke detectors – photoelectric or ionisation and/or combination of both
- Spot heat detectors – temperature sensitive to fixed temperatures or rate of rise and/or combination of both
- Aspirating smoke detectors (ASD) – air is continually sampled to detect smoke with a high level of sensitivity
- Beam smoke detectors – suitable for open spaces and large area coverage, consist of a transmitter and receiver
- Flame detectors – use ultraviolet (UV) or infrared (IR) technology or a combination of both
- Spark detectors – detect sparks and embers in dust extraction systems for example
- Carbon monoxide (CO) detectors –provide early warning of slow smouldering fires.

Monitoring

There are various options available for monitoring of fire alarm signals:

- Local alarm – includes battery and hardwired audible alarms with no off-site monitoring capability (least reliable)
- Security alarm system – smoke detectors connected to a security alarm system and monitored by the security provider. Suitable for smaller premises where cost of AS 1670 system is not justified. The response protocol to an alarm activation is an important consideration when choosing this option.
- Automatic fire alarm system – detectors are connected to a fire indicator panel (FIP) and monitored by an authorised automatic fire alarm service provider in accordance with AS 1670.3. This type of system will ensure a response from the fire brigade (most reliable).

Maintenance

To help ensure fire detection systems operate reliably, they should receive scheduled maintenance as set out in the relevant Australian Standards and manufacturers recommendations.

For more information:
www.vero.com.au/vero/business-insurance/risk-management
Contact us at riskengineering@vero.com.au