



Special Hazard Fire Detection Application Bulletin

Education Series: Fire Detection Education Program

VOLUME 9

Elevator Fire Detection



Linear Heat Detection for Elevators

Elevators are a common application that are in need of fire detection. The CSA B44 Section on elevator recall mention both smoke and heat detection as acceptable forms of detection depending on the requirements of the individual shaft.

Linear heat detection is a common form of heat detection for these applications. The wire is easy to run inside the hoistway at each level and in the pit at the base of the elevator. When installing the linear heat detection, the cable needs to be appropriate alarm temperature and installed within 2ft of the sprinkler head. The cable is then ran to an equipment room outside the hoistway ending with a test switch.



Air Sampling Fire Detection

Air sampling smoke detection is another common form of smoke detection for these applications. For most hoistways, the detector would be installed in an equipment room at the top of the shaft where the pipe enters into the shaft.



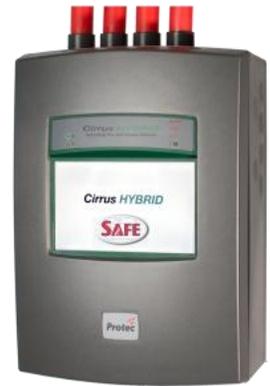
The pipe then rings the hoistway locating several sample points inside, before penetrating back out of the hoistway and back into the equipment room where the pipe run ends with a test point. The exhaust of the air sampling smoke detector is then ran back into the hoistway.

Modern System Design

With the adoption of the 2019 ULC Standards, these initiating devices now have a new requirement of being maintained and serviced outside the shaft.

Both Linear heat detection and air sampling smoke detection easily achieve this requirement.

For linear heat detection, the zone starts at the monitor module, running into the shaft before returning out of the shaft to a test switch to be used for the required annual testing of the system.



Air sampling detection is similar as the detector is installed in the equipment room at the top of the hoistway, the pipe is ran into and back of out of shaft, then ending in a test point which is used for the required annual testing of the system.

There is no need to enter the hoistway to commission, service, maintain, or test the system.



www.advancedbc.ca
info@advancedbc.ca

1-888-667-1584