

Gloveboxes

SPECIAL HAZARD APPLICATION

Glove boxes are enclosed, controlled environments commonly used in laboratories and industrial settings to handle hazardous materials such as chemicals, pharmaceuticals, or radioactive substances. While glove boxes are designed to contain these materials safely, they present unique challenges when it comes to dealing with fires.

Fires within glove boxes are a significant challenge due to the nature of the device's operation. Despite precautions, ignition sources such as electrical equipment, hot surfaces, or chemical reactions may still be present within the glove box. These ignition sources can ignite flammable materials or gases inside the enclosure, leading to fires.

Given these devices are a contained environment with limited access, evacuating contents in an emergency event can be challenging. Linear heat detection is well suited as an automatic fire detection device for these harsh environments. Being able to install the low-profile detector in and around critical spaces makes it an ideal solution for glove boxes. Like other applications where entry into the detected space is not allowed, linear heat detection can be easily tested without entering or opening the glove box assuring the operator their fire detection system is functioning as designed.

All glove box installations must comply with relevant international, state, and local regulations. These regulations will often dictate specific requirements for fire protection measures such as developing contingency plans for evacuating personnel and containing fires and may include provision for accessing and shutting down utilities or ventilation systems if necessary.

Linear heat detection can be used to address glove box fire challenges, help mitigate risks and protect valuable equipment and materials.

