

## **Airplane Hangars**

**How one hangar used a Protectowire Interface Module to solve a dilemma.**

Protectowire is often used in the transportation industry, which includes a number of applications such as roadway tunnels, metro stations, rail systems, and airports. Airport hangars have specific risks associated with them due to their physical size and the number of combustible elements often contained in them. This increases the level of complexity involved in the design, installation and operation of linear heat detection systems used in hangars. Protectowire is ideal for this type of industry application because Protectowire Standard PHSC Linear Heat Detectors are not affected by the fluctuating temperatures airports are conducive to.

In one case, an airplane hangar in the Pacific Northwest, United States, experienced an unidentifiable problem which caused the foam deluge system in the hangar to spontaneously initiate. A foam system, when it operates properly, is an effective method of protecting the facility and its contents by smothering the contents and fire in a high-expansion foam material. In cases where no alarm conditions exist, however, the foam and water discharge can cause serious damage to cargo, equipment and/or the planes themselves. The costs associated with this particular issue can be extremely high.

This hangar had Protectowire PHSC employed as the pre-action to initiate the suppression system. As a digital contact device, it was not unreasonable to assume the cause of the problem would be the detector. However, after exhaustive evaluation, it was determined that this was not the case.

This left the issue unsolved and narrowed the list of possible causes down to the conventional panels, which were not Protectowire, monitoring the facility. This further complicated the process of troubleshooting faults on a system of this nature.

To remedy the situation and provide more intelligence to the system, an addressable panel was installed along with the Protectowire PIM-530 Interface Module. The addressable panel provided the ability to monitor each of the conventional panels individually. The interface modules were able to provide direct communication with the zone in question to log any issues or anomalies along the linear heat detector and back to the supervisory panel. The installation of the PIM-530 Interface Module provided the ability to pinpoint the source of the false alarm to a faulty circuit on one of the conventional panels.

Though it took an extensive amount of time and effort, the problem at hand in this situation was ultimately solved with the help of Protectowire's Interface Modules, which, along with the Standard Digital PHSC, lessened the chance of an expensive and time-consuming incident.

### **Questions?**

If you have further questions please visit [protectowire.com](http://protectowire.com) or call **781-826-3878**.