FAAST Fire Alarm Aspiration Sensing Technology®

Application: **Cold Storage**

Smoke Detection in Cold Storage Facilities

Costly loss of product and productivity are just two ways a fire can do a great deal of damage to cold storage facilities, so highly effective fire protection is a must. However, cold storage facilities are very challenging areas to protect from smoke and fire. Due to low temperatures, normal UL listings for many traditional passive detection devices preclude their use in refrigerated storage applications. Furthermore, because cold storage environments often have extremely dry atmospheres, high airflows, and the presence of highly combustible materials, fires can spread quickly through refrigerated facilities.

FAAST Solution for Cold Storage

The FAAST Fire Alarm Aspiration Sensing Technology is an ideal solution for protecting many cold storage facilities. First, the FAAST device can be mounted outside the extreme environment in an easily accessible location. FAAST, which is listed to sample air up to -20˚C, then draws air through a pipe network that is run into the cold storage space. As a result, the device does not need to be exposed to the cold temperatures that prevent the use of many traditional devices.

FAAST's unique Dual Vision sensing technology, advanced filtration, and patented particle separation work together to provide early and accurate smoke detection. FAAST is listed to sense smoke at levels as low as 0.00046%/ft (0.0015%/m) while providing superior nuisance rejection to reduce downtime from false alarms. This level of sensitivity, along with five fully customizable alarm levels, enables facility managers to address incipient fire conditions before actual combustion can cause costly damage and inventory loss.

FAAST is also able to actively notify facility managers at the first instance of trouble. Using its onboard Ethernet port and e-mail client, FAAST can send e-mails to up to six individuals when set alarm thresholds are reached. The integral Ethernet capabilities also allow a FAAST device to be monitored anywhere in the facility via the Local Area Network (LAN), or anywhere in the world using a Web browser and a VPN-capable device.

Cold Storage Installations

Cold storage typically exists in a warehouse-style setting, which normally requires open-area detection. Temperatures within a cold storage facility can vary between –40˚C and 18˚C.

In cold storage applications, it is essential to protect freezers/chiller rooms, coolers, shipping bay areas, ceilings and ceiling voids. In addition to these areas, it is recommended to sample air from the return air path in the protected area. Samples may also be drawn from within the racks.

For suggestions on pipe network design and layout in cold storage applications, please download our cold storage application notes at systemsensor.com/faast.