



Protec Aspirating Systems Solutions For Custodial Applications

Issue 0

Protec Aspirating Systems - Custodial Applications

Protec provides a number of aspirating detectors together with many bespoke ancillary components for different solutions, for various prison/custodial applications. Compliance with UK MOJ specification requirements provides a challenge to all manufacturers, a challenge which Protec have risen to and excelled at. For more information on Protec aspirating systems please visit www.protec.co.uk

General Capability



- Complete Site-wide Fire Alarm Systems
- Various In-Cell Fire Detection Solutions
- In-cell High Pressure Watermist Systems
- General Alarm & Affray Alarm Systems
- Cell Call Systems
- Perimeter Security Induction Lighting
- Perimeter Intruder Detection Systems
- CCTV Systems and System Integration
- Voice Evacuation & Public Address Systems
- Disabled Refuge & Fire Telephone Systems
- Ancillary & Tamper Alarms

Major Reference Projects



Custodial buildings have been a significant part of the Protec UK business for many years. This has generated revenues in excess of around £100M and encompasses many Fire Alarm and ancillary systems in approximately 100 UK sites.

From this UK success, Protec has expanded sales in this sector to several other countries, including Spain, USA, and New Zealand.

In many of these completed projects, Protec manufactured aspirating detection systems have proven to be reliable solutions, within various areas of these challenging applications.

Applications Within Custodial Buildings



- Police Station Custody Suite Cells and Circulation Areas
- Prison Cells (approx. 15,000 cells)
- Prison Wing/Landing Atria
- Workshops
- Libraries
- Gymnasiums
- Secure and General Ceiling Voids
- Plantrooms
- IT Facilities
- Skills Centres
- Security Control Centres

UK Ministry of Justice (MOJ) - Cell fire detection system fire testing

Protec provides multiple options for in-cell detection systems including, enhanced point type multi-sensor detectors, anti-ligature smoke detectors, wireless smoke detectors and ProPoint Plus aspirating detectors.

A critical requirement of the UK MOJ specification STD-ESPEC-038 for in-cell detection is the ability to reliably detect actual fires and reject unwanted alarms signals.

This can be a difficult ask for most optical only aspirating smoke detectors. However Protec has a simple solution for this, ProPoint Plus is the only multi-sensor aspirating detector for in-cell detection.

ProPoint Plus aspirating detectors employ a specific algorithm (Prison Mode), which includes inputs from an Optical smoke sensor, CO sensor and Heat Element. In comparison testing with other manufacturers solutions, ProPoint Plus proved to be very successful.

Alarm response to actual fires, together with the rejection of unwanted alarms from direct cigarette smoke, passive cigarette smoke, 'E' cigarette smoke and steam, ensure minimum nuisance alarms.

In Cell-Detection using ProPoint Plus and a range of complimentary accessories

Protec ProPoint Plus aspirating smoke detectors contain up to four separate smoke sensors to individually identify alarms from up to four different cells.

Each aspirating detector is installed in a secure area allowing any maintenance works to be carried out without requiring access to the custodial area. Alternatively, if this is not possible each ProPoint Plus can be supplied in a secure enclosure.

Protec in-line sampling pipe filters located in serviceable areas should be installed to prevent excessive dust from reaching the aspirating detector and thereby reducing maintenance.

The Protec in-cell secure sampling point is fully compliant with NOMS anti-ligature requirements and is detachable from its base to assist cleaning and general maintenance.

A range of secure (anti-ligature) sampling pipe protective truckings including right angle and flat sections are available to assist with the practicalities of some installation problems.

V0 rated flexible 25mm diameter sampling pipe can assist in often difficult pipe routes for cell applications. Additionally, this option reduces installation risk as generally no glued bends and pipe joints are required.



ProPoint Plus



In-Line sampling pipe filter



In-cell sampling point



Angled in-cell sampling pipe containment



Straight in-cell sampling pipe containment



Flexible sampling pipe

Wing/Landing atria detection using Cirrus CCD and Cirrus HYBRID aspirating fire & smoke detectors

Protec Cirrus HYBRID Aspirating Fire & Smoke detectors provide early warning of fire threats and resilience to unwanted false alarms for Wing atria and other high ceiling areas in prison/custodial applications.

Other applications for Cirrus HYBRID detectors include libraries, chapels, gymnasiums, secure ceiling voids and IT rooms.

Cirrus CCD is a harsh environment aspirating 'fire' detector and can be used in many applications including dusty workshops, fabrication rooms and areas where damp and condensation are prevalent.

Hole Identification Tags (HIT's) are recommended for high ceiling applications to identify where and what size each sampling hole is and reduce dust loading at each sampling point.



Cirrus CCD



Cirrus HYBRID



HIT Hole Identification Tag



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