

CASE STUDY: Schiphol Airport, The Netherlands

The Buildings

Amsterdam Schiphol is one of the world's major hub airports. In 2013, some 52 million people and 1.5 million tonnes of cargo passed through it and with numbers increasing the airport authority has to work hard to ensure infrastructure demand is met. Paramount in all this is the safety of passengers and public as well as the protection of property and assets, whether it is in the passenger terminal lounges, staff areas, retail areas or aircraft hangers.

The Challenge

Keeping the site running whilst protecting it fully is no easy task and Schiphol works to minimise any risks as much as possible, with one key area of focus being protection against fire.

It is essential when protecting such buildings that suitable systems are in place to monitor for fire and provide early warning for evacuation, whilst balancing this with the need to keep the airport running and the importance of avoiding false and unwanted alarms. Any stoppages can have serious and costly consequences.

It is crucial that functional detection system testing is carried out on a regular basis in such a way that it is controlled, quick, and cost effective and without any disruption and risk to people and continuity of business. Working with its professional system maintenance and service contractors, and always with one eye on innovative solutions coming onto the market, Schiphol's technical department for fire identified ways in which maintenance, technically and practically, could evolve to keep pace with the advanced sensing technology being deployed across the airport site.

The Solution

Schiphol's technical department for fire identified that the latest innovation in test technology, Scorpion™, would be an ideal, professional test system to test and maintain their intelligent detection systems (Point and ASD).

Schiphol's technical department for fire saw that for many detectors which are installed in locations where access is restricted either physically or for security reasons, Scorpion could be installed at a one-time cost. Periodic testing thereafter consisting of a single person performing a push button test at an easily accessible control unit. With many detectors installed in locations behind false ceilings, in floor voids, baggage channels behind security cages, in lift shafts, IT server / telecoms rooms, data rooms, warehouses, etc., Scorpion's installation can reduce the need for access machinery, disruption, unnecessary health & safety risk and the related costs.

With its potential usage earmarked for many of the areas detailed above, Scorpion has been initially installed successfully in a server room where a technical test of the ASD system can be carried out. Such a test ensures smoke can be drawn into a sampling hole at the end of the pipe, that smoke can then travel the length of the pipe and be detected by the sensor. With an in-built transportation timer, and the repeatable nature of the testing, monitoring of the system's performance (and any fluctuations) can be done through the time measurements taken at each periodic maintenance visit. A complete system check can ensure the integrity of the pipe network and the function of the detector, crucial elements in providing early warning.