Civil Aviation Department Selects AP Sensing for Airport Facility
Hong Kong

A Modern and Ecological Fire Detection System

To address the future growth of the air traffic industry in Hong Kong, the Civil Aviation Department (CAD) is constructing a new headquarters. The five individual buildings will cover approximately 65,000m² of space and are designed to accommodate the CAD functional divisions, the Air Traffic Control Centre (ATCC), and the antenna farm.

The entire construction process is designed for future growth, efficiency, and with modern energy-saving ecological aspects. That is why AP Sensing, together with their local partner, were selected for the fire detection system.

*Construction underway in Hong Kong*

Any fire has the potential for devastating consequences, both to a company’s assets as well as to human life. With a 25-year heritage as the optical test leader (from Hewlett-Packard and Agilent Technologies), AP Sensing’s Linear Heat Detection System offers unparalleled advantages over both conventional fire-detection and other DTS solutions:

- Up to 8 kilometers of fiber-optic detection coverage per controller. The Hong Kong CAD implementation will use 3 controllers to cover 5 buildings, with a total fiber-optic cable distance of approximately 4 kilometers.
• A single cable can be divided into zones (up to 256), and each zone can be individually configured with regard to alarm thresholds and reactions. For example, maximum temperature, gradient temperature, or intelligent combinations of both can be defined for each zone.

• AP Sensing’s solution combines the ability to locate an alarm situation, determine the size of a fire and the direction it is spreading, and provide this information continuously in real-time, both during detection and to help guide fire-fighting efforts.

• AP Sensing has the industry’s most complete set of certifications, which helped obtain special approval from the Hong-Kong fire security department to use the Linear Heat Series instead of an expensive fire suppression system.

Conception of finished CAD Development Project

Future-proof and Ecological

The campus features 140m² of photovoltaic panels, 6 solar lighting collectors with a fiber-optics solar tracking system, as well as rainwater collection, vertical greening and green roof initiatives. AP Sensing’s Linear Heat Series will be installed inside the raised floor and will replace the sprinkler system. The maintenance-free system will provide continuous real-time monitoring throughout the entire plant, and is immune to dust, dirt, humidity and electro-magnetic interference. All of this monitoring information continues to be available to the fire-fighting personnel, and no other fire detection system can continue to operate and withstand temperatures up to 1000°C.