Metro Rail and Airport Fire Detection

Helsinki, Finland

Four metro stations and their connecting tunnels within the 42-acre Vantaa airport region in Helsinki wanted a Distributed Temperature Sensing (DTS) solution to monitor their infrastructure for fire detection. AP Sensing's Linear Heat Series, including the SmartVision asset visualization and alarm management system, were selected.

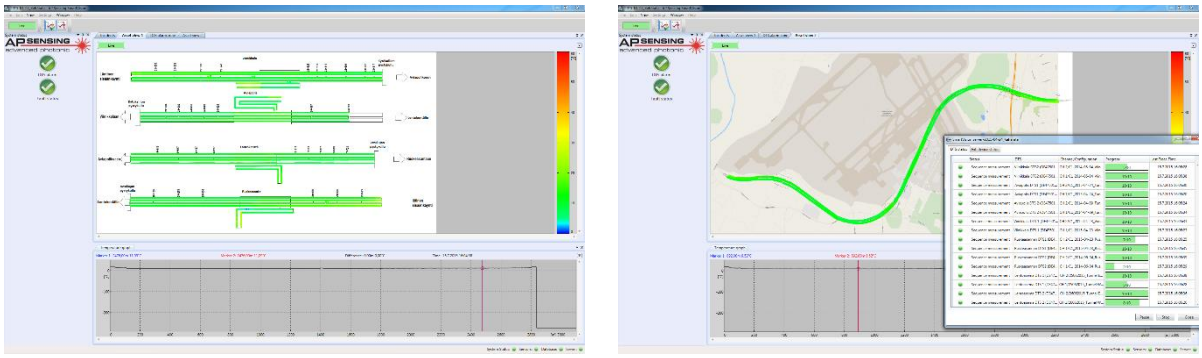
The 4 stations with the charming Finnish names of Viinikkala, Aviapolis, Lentoasema, and Ruskeasanta are the underground stations nearest to the airport. In addition to monitoring the stations themselves and the ca. 8 km of tunnels connecting them, each station has a separate service tunnel that is also monitored. Together this stretch is known as the Kehärata link, and it connects these stations to the main Helsinki City metro line.

Aviapolis metro station is now monitored by AP Sensing

Altogether 8 AP Sensing Linear Heat series DTS devices were installed, 2 for each station. Two-channel devices were selected to enable a fully redundant and secure configuration that would continue to function even in the unlikely event of a fiber break.

A total of 26 km of the "Safety" sensor cable was installed along the ceilings of the tunnels and inside the stations.

AP Sensing's SmartVision asset visualization and alarm management system gives the operators a complete schematic overview on one easy-to-read screen, with color-coded temperature levels:



The powerful SmartVision software suite lets operators choose the view they want in real time

External relays are used (there are up to up to 40 available on each DTS device) to ensure that all relevant data is passed to the fire panel and the SCADA system. All important standard protocols are available for communication over Ethernet (TCP/IP).

With the industry's most comprehensive set of certifications and product tests, professional support and services, and expert regional partners, the Helsinki operators can rest assured that they have attained the highest possible level of environmental and passenger safety for this valuable infrastructure.

AP Sensing Linear Heat Series