



Historical Palaces Fire Protection Korea

Namdaemun, which is officially known as Sungyemun (meaning “Gate of Exalted Ceremonies”), is one of the Eight Gates of the fortress wall of Seoul, South Korea, which dates back to the 14th century. Following a devastating fire in 2008, it was decided to install AP Sensing’s Linear Heat Series solution to protect this national treasure. Together with Tyco Korea the fire detection system will also be installed in several other Korean historical structures to protect these valuable assets.

Before the fire in 2008, the “Great Southern Gate” Namdaemun was the oldest wooden structure in Seoul. After four years of construction the old gate was completed in 1398, rebuilt and renovated several times since. It was used to control access to the city and was one of three main gates of Seoul. During the Korean War from 1950-1953, Namdaemun was damaged extensively and was restored in 1961 to its origin status – including a large ceremony where it was given the status of “National Treasure No. 1”.



Namdaemun before the fire in 2008

In 2008, as a result of arson, Namdaemun was badly damaged and virtually the entire wooden part of the structure was destroyed. The estimated costs for the restoration were around \$14 million. After a comprehensive study of available fire detection systems the government decided to use the AP Sensing fiber optic linear heat detection system as the key part of the new and enhanced safety solution.

Besides the Namdaemun Gate, Tyco Korea is also equipping several other historical structures with the innovative new safety concept. Overall monitoring more than 10,000 meters every 10 seconds for quick and reliable fire detection.

Summary: AP Sensing's Linear Heat Series is uniquely suited to protect valuable infrastructures like the Namdaemun Gate. A fiber optic cable acts as the sensor and is installed under the new wooden siding so it remains invisible to visitors. The Linear Heat DTS device is also conveniently located outside the gate itself. If the cable detects hot spots or if pre-defined limits are exceeded an alarm is triggered and counter-measures can be immediately initiated. Extremely valuable cultural assets remain securely protected.



Namdaemun after the fire in 2008