Reliable Flame Detection for Maximum Safety

Korean Manufacturer VINE-SYS Counts on InfraTec Sensors

VINE-SYS is a Korea-based manufacturer, exporter, specializing in the optical flame detection in South Korea. The high-end triple-IR flame detection devices of the company's NX series are equipped with LME-336 detectors from InfraTec. The devices are used for supervising living environments for fire prevention.

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https://www.vinesys.co.kr/

InfraTec Sensor:
LME-336 single channel detector

Highly reliable fire protection systems are essential for both public buildings and high-rise residential buildings. The consequences of a fire can be dramatic, which is why risk mitigation measures are required by law. For flame detection, VINE-SYS offers, among other products, its **NX Series** flame detection devices, which are available as triple-IR (IR3) or as quadruple version with an additional channel for hydrogen flame detection. Both NX devices are suitable for long-distance flame detection and feature high false alarm immunity. These NX devices observe areas where detection of the onset of a fire is critical to prevent any significant damage to the facilities and to protect lives.

For flame detection, attention is paid to high sensitivity, fast response time and a large field of view. A key challenge for the NX devices is reliable flame detection over the long distances required by specific national regulations. The single channel detector LME-336, implemented in each spectral channel, solves this task with high detectivity, using a 2.0 × 2.0 mm lithium tantalate pyroelectric element. Additionally, the wide field of view (FOV) and a 5.0 mm aperture allow the observation of large areas with a single flame detection device. The low micro-chip mounting ensures undisturbed signal even in rugged environment.

Using the detector in current mode offers advantages such as a high, noise-immune output signal and faster response to step responses, such as those triggered by mechanical pulses or rapid temperature changes. Low-frequency disturbances, such as changes in ambient temperature, are also more effectively suppressed.

As human lives depend on the reliability of the NX flame detection devices, VINE-SYS decided to implement high-quality pyroelectric detectors from InfraTec. As part of their long-standing partnership, the two companies supply the market with high-performance flame detection devices in the required quantities.



Picture credit:
VINE-SYS, iStock / LAISA

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