

# Overheat and Fire Detection in Railway Bridges

Hostile environments combined with combustible wood construction in remote locations make railway bridges especially vulnerable to fire. Flexible timbers and extreme ambient temperatures compound the difficulties encountered in designing a fire detection system for these isolated locations. These challenges are met by Protectowire's XCR Linear Heat Detectors.

Protectowire's XCR Series Linear Heat Detectors offer continuous coverage anywhere along the length of the bridge and provides early warning in the event of a bridge fire that is critical to avoiding a potential disaster. Knowing if the integrity of the track has been compromised is essential to allow for safe stoppage of an approaching train preventing loss of life, cargo and equipment.



On railroad timber trestles, the linear heat detector is secured to wooden railway ties using OHS-SS stainless steel mounting clips. The linear heat detector is monitored using a custom configured PIM-120-12RP interface module designed to integrate into the existing railway switch gear equipment. The module is typically located within the existing track signal control enclosure and powered by solar charged batteries in remote locations. Upon detection of an open or short, the Protectowire module will relay a signal to the track monitoring controller indicating a track short. The track short signal indicates to personnel that there is problem at the bridge.

Protectowire Linear Heat Detectors are designed to withstand extreme environments. The XCR Series Detectors offer excellent resistance to moisture, abrasion, harsh chemicals, and UV exposure. Protectowire XCR Series Linear Heat Detectors is just one of the many products offered by Protectowire FireSystems. For over 75 years, many of the world's largest companies have chosen Protectowire to protect their valuable assets and business operations.

