Fire detection for rolling stock

Combining high reliability and optimized maintainability

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At the Building Technologies Division of Siemens, we have further developed our sophisticated detection technology to fit your rolling stock application. With the multisensor fire detector (FDOOT801-A1), we offer you a convergence of 160 years of expertise in building fire detection and safety design proven in aviation applications.

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The goal of fire protection is to successfully save people, material goods and the environment from the dangers and effects of a fire. In train applications in particular, fire protection systems encounter special challenges. Limited space for evacuation, risky environments like tunnels and the operational consequences of false alarms are constraints that make the combination of early and reliable detection crucial.

Reliable and safe fire detection

The highest availability levels are achieved by a product design that maximizes MTBF (meantime between failures) figures and produces state-of-the-art reliability. Safety is ensured through a software design that fulfills safety integrity level (SIL) 2.

A multi-criteria detection algorithm processes optical and thermal sensor signals to deliver fewer false alarms and high-performance fire detection that has been proven in aviation applications.

Especially designed for harsh environments, the multisensor fire detector is compliant with EN 54-5 and EN 54-7, CE regulations and all applicable European rail standards. It offers unsurpassed support to the efficient operation of your trains in the most challenging environments.

Answers for infrastructure and cities.

Optimized maintainability

In order to reduce maintenance efforts, the multisensor fire detector is designed for an optimal experience. In highly polluted environments that might result in contamination, sensors proactively alert you to safety concerns. No intermediate activities, tests or parts such as cleaning filters are required.

With the goal of providing a lean maintenance concept, the multisensor fire detector has been designed to reduce the dismounting and mounting duration time to less than three minutes. As a result, the system supports you in the reduction and simplification of your maintenance activities.

Extended functionality

Thanks to its output, each multisensor fire detector can easily be used to activate peripherals such as ventilation control, acoustical or optical notification and extinguishing equipment. It can also manage up to three inputs.

The wide spectrum of possible combinations makes the multisensor fire detector a smart solution for a variety of applications.

The device can be operated without a fire control panel; it can be directly connected to the train system through discrete outputs.

Highlights

- Application-tailored technology for reliable and safe train operation
- Fast installation and easy maintenance
- Simple integration into existing rolling stock